HENRIK TOTTERMAN

FROM CREATIVE IDEAS TO NEW EMERGING VENTURES

ENTREPRENEURIAL PROCESSES AMONG FINNISH DESIGN ENTREPRENEURS

Helsinki 2008
From Creative Ideas to New Emerging Ventures: Entrepreneurial Processes among Finnish Design Entrepreneurs

Key words: Entrepreneurship, entrepreneurial processes, product development processes, venture ideas, decision making, collaboration, industrial design and design entrepreneurship.

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Surprisingly enough, commercialization of a venture idea and publishing a doctoral thesis have many things in common. These processes may start with or without an identified idea, and the original ideas tend to change and develop in the course of the long and winding process. They also both tend to drag out in time and the resource requirements are bound to change and expand.

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1 INTRODUCTION

During recent years, the competitive landscape of open economies has changed considerably due to globalization, technological revolution and deregulation processes. Countries such as Finland have begun to transform from manufacturing into knowledge economies over a relatively short period of time (Lindström et al., 2006). Consequently, it has become fashionable among, researchers, policy-makers and industry representatives to discuss the benefits from increasing and exploiting creativity not only in society, but also in business activities. The importance of creativity in gaining a competitive advantage is supported by studies made in both Europe and USA (e.g. Calonius, 2004). For instance, Hakatie and Hasu (2003) recognize that in recent policy-related debate creative industries and creative business activities are being emphasized as the drivers of future Finnish economic growth. The precision and direction of forthcoming development is still somewhat unclear. It is possible that the creative economy will be born by expanding the competence basis of organizations and via collaboration between industry and creative professionals. Consequently, industrial organizations should efficiently employ creative professionals, since they can assist in renewing the present industrial structures. However, the existing roles and routines within the industries are slowing the current transformation (Hakatie & Hasu, 2003).

Industrially-manufactured products are always designed by someone. In the early days of the industrialization, design normally occurred as an adjunct of the overall product development. In fact, industrial design is a far younger profession than, for example, architecture and engineering. In Finland, industrial design education started as late as in 1961 (Valtonen, 2005c). Especially in the beginning, industrial design education fought for recognition in an environment where an art-based approach was considered more valuable among designers than working in industry. Over the years, the role of the industrial designer has become more diverse, and currently they work as product designers, user interface designers and design managers of various forms. Their roles are today often more strategic than operative, and their importance for business has been identified, though simultaneously their professional role has become more diffused and is more difficult to define (Valtonen, 2006, 2007).

Design entrepreneurship is commonly based on individual level competences. The essence of competence has increased as renewal, innovations and networking have become the drivers of business achievement. Finnish design entrepreneurs normally have adequate skills related to creativity and design, but they lack business competence in administration, marketing and organization of operations. The lack of resources makes it challenging for them to develop these skills (Tuovinen, 2001; Lindström et al, 2006). Individual creative input is important, since the design entrepreneur is often positioned in the middle of a competence set-up (OPM, 2006). However, due to this centralization, they may find it hard to share or expand their own skills. It is not always easy for design entrepreneurs to sell their creative input, which may increase their unwillingness to hire people or expand their business. Similarly, they often have poor capabilities to transform their competence into sellable products or services. Design entrepreneurs commonly possess creative competences, but may lack the skills and interest to develop their businesses. Hence, the commonly-held assumption is that creative individuals and companies have poor skills related to business and marketing,
which according to OPM (2006) may imply severe challenges for business development.

According to an investigation made by Tuovinen (2001), the majority of the Finnish industrial designers (n=83) considered that creativity, flexibility and identification of customer needs were their major achievement factors as professional industrial designers. On the other hand, they also felt that a lack of business skills and networks as well as bad project administration skills were the major sources of potential failure as industrial designers. 20% of the respondents were self-employed, and only 10% of these employed someone in addition to themselves. Similarly, Piira and Järvinen (2002) reported that the majority of the responding design agencies aimed at improving their business-related skills and processes in the next few years (n=30). The agencies also identified a need to commercialize their design-related services and to improve their financial result and service quality. On a general level, the respondents argued that industrial design in Finland suffered from a lack of managerial skills, small company size and a lack of ability among customers to exploit design-related services (Piira & Järvinen, 2002).

As a result, design entrepreneurs are generally against business growth. Instead of employing more personnel, they find it easier and safer to purchase the required services via their networks. For instance, Piira and Järvinen (2002) suggest that design entrepreneurs who operate smaller businesses should increase networking to overcome their resource deficits. A steady cash flow from offering design services or from developing their own products is needed to receive a stable income, but starting several design ventures simultaneously is challenging, and it also binds resources for a long period of time. In addition, the small domestic market size forces industrial designers to work with a broad range of design-related tasks or to specialize, and thus remain small, or become international (Piira & Järvinen, 2002). Consequently, design entrepreneurs often want to keep their businesses small and flexible. Nevertheless, according to Tuovinen (2001), design entrepreneurs in general find small company size and a poor degree of internationalisation as central impediments for their business development.

1.1. THE RESEARCH PROBLEM

This study is interested in building an understanding of entrepreneurial processes among Finnish design entrepreneurs. More specifically, this study strives to discover what design entrepreneurs do when they create new ventures, how venture ideas are identified, and how the processes are organized to bring such ideas to the market in the given industrial context. Indeed, what do educated and creative individuals do when they create new ventures, where do the venture ideas originally come from, and, moreover, how are venture ideas identified and developed into viable business concepts that are to be introduced to the market? From an academic perspective, there is a need to increase our understanding of the underlying entrepreneurial processes. Further, there is a need for a conceptual framework that explains professionals’, including industrial designers’, capabilities to orchestrate entrepreneurial processes in this and other empirical contexts.
Previous researchers suggest that personal characteristics and previous experience will influence an individual’s likelihood of becoming self-employed. Gartner (1985) was one of the first to argue that we do not need to know who the entrepreneur is, but rather what he or she actually does when creating new ventures. Individuals with characteristics that support the likelihood of new venture creation may still decide against it. Consequently, we know from previous research that individuals identify potential venture ideas and make their decisions to exploit them based on their access to information and previous knowledge (cf. Venkataraman, 1997). However, some researchers argue that this decision always signifies a commitment to create new formal ventures (e.g. Gartner, 1998). Others argue that the entrepreneur may in fact initiate entrepreneurial processes without creating new organizations (e.g. Shane & Venkataraman, 2000; Davidsson, 2003). The challenge is that the disagreement in entrepreneurship research is mainly conceptual. The field continues to lack an empirical understanding of what individuals actually does and what they actually create when they shape new venture ideas. For instance, Steyaert (2007) argues for the benefits of a creative process view, since it potentially captures the complexity of the phenomenon. Results from one of the few empirical investigations that focus on entrepreneurial processes challenge the common assumption that entrepreneurs first identify venture ideas and then exploit them (cf. McKelvie & Wiklund, 2004). Instead, these processes appear to be closely entwined (e.g. Davidsson, 2005), and may focus on micro level (e.g. products or services) or macro level venture ideas (entire organizations) (Bygrave, 1989b).

Previous research indicates that the choice of the mode of exploitation often derives from the individual who identifies the venture idea. They need to consider their willingness to exploit it themselves, or on behalf of someone else. Further, the venture idea can be exploited via a hierarchical mechanism, such as a firm, or via some other market mechanism, such as licensing or franchising (e.g. Shane, 2003). However, the design entrepreneurs may find it challenging to promote their venture and convince others of the potential behind it due to potential lack of business orientation, resource deficits and uncertain customer demand. As pointed out by previous entrepreneurship researchers, the surrounding environment plays a significant role in initiating and carrying out entrepreneurial processes (e.g. Mata & Portugal, 1994). As a result, resource availability also influences the selection of an appropriate mode for exploiting a venture idea (e.g. Aldrich, 1999). The assumption is that design entrepreneurs’ often aim at earning a living from self-employment rather than the creation of new formal organizations.

Conley (2004) points out that, in the past, design has maintained a big distinction between itself and business, driven by the fact that design is employed as a service in most situations. This distinction is blurring rapidly now that design and its competences are recognized as having a broad range of applications and value in building business. Similarly, Smith (in Green et al., 2004) notices an increasing value to be gained from bringing these seemingly distinct orientations together, since an increasing number of businesses are experiencing increased consumer-driven competition. Consequently, designers should continue to value design but also know how to design for value. Conley (2007) finds that the core competences of designers could also be beneficial on the more aggregate level, for instance, due to their ability to explore possibilities and
ways of approaching new work tasks. However, Rieple (2004) suggests that there are
differences in the way of thinking between designers and representatives of other
professions. Designers’ thinking is characterized by leading the venture (organization)
to where it has not yet been by creating and imagining what may be the future. In that
sense, the design profession focuses on possibilities and opportunities, not problems and
solutions, or improving the present. In contrast, business-related thinking often focuses
on the need to protect and harvest what has been already created. Therefore, it makes
sense that over time organizations develop routines, systems, and structures, as well as
beliefs about how to do things that are economical, and often in relation to the existing
range of products.

Self-employed industrial designers are creative professionals who commonly do not
prioritize their role as entrepreneurs. Previous researchers indicate that design
entrepreneurs are professionals in their own right, but may lack vital resources related to
production, distribution and business administration more generally (e.g. Salimäki et al,
2004; Lindström et al., 2006). Consequently, entrepreneurship in this specific research
context may show some special features associated with assembling their
entrepreneurial processes. For instance, design entrepreneurs may prioritize the creation
of design-related newness over functional or technology-related novelty (Verganti,
2003). Sometimes, design emerges from creative observation, which may initially pay
no attention to consumer-related needs, production-related guidelines or financial
viability (cf. Clarke & George, 2005). However, from a business perspective, it is
necessary to consider production feasibility and market demand (e.g. Cooper et al.,
2003). Therefore, design entrepreneurs may face considerable obstacles when trying to
match their design-related creativity to production and marketing-related functions.

Consequently, there are two major considerations with regard to the research problem.
First, one consideration of importance is that the process view is a frequently and an
increasingly discussed topic within recent entrepreneurship research. The theoretical
knowledge regarding the entrepreneurial process is gradually increasing, but extant
empirical understanding continues to remain incomplete. Secondly, various individual
and context-specific factors suggest authentic characteristics for entrepreneurial
processes. However, existing theoretical frameworks are eagerly generalising these
factors to develop a multidisciplinary and general theory of entrepreneurship (e.g. Shane
& Venkataraman, 2000; Gartner, 2001; Davidsson, 2004). Previous research commonly
suggests that entrepreneurship consists of venture ideas, individuals, and ways of
organizing the activities within the overarching context of market environments. In
general, it would be fair to state that hitherto research on the entrepreneurial process has
focused only on specific parts of the entrepreneurial process. Few studies have captured
the complexity of the phenomenon, by focusing on elements such as: the characteristics
of the entrepreneurs; the venture ideas to which they respond, their strategies, and
moreover their resource acquisition and their organizational processes. Instead,
researchers have decided to limit their studies to particular venues without considering
their explanatory power or relationship to other parts of the entrepreneurial process. As
pointed out by Shane (2003), by focusing only on one aspect of the process, most
researchers fail to provide a comprehensive explanation of the phenomenon.

During the past few years, an increasing number of researchers have focused on the
entrepreneurial process, and their contributions strive more than earlier ones to include
inputs from all the major disciplines. To support this development, several researchers suggest that entrepreneurship should be seen as a process rather than an event (e.g. Bygrave & Hofer, 1991; Venkataraman, 1997), and many researchers call for more process-driven research (e.g. Bygrave & Hofer, 1991; Shane and Venkataraman, 2000; Busenitz et al., 2003; Sciasca & De Vita, 2004). Consequently, the entrepreneurial process has increasingly become the focus of interest in entrepreneurship research (e.g. Bhave, 1994; McKelvie & Wiklund, 2004; Johannisson, 2005). However, previous attempts to describe entrepreneurial processes involve some substantial challenges. Some describe the process as sequential (e.g. Shane, 2003), while others feel that there is at least partial interaction between identification and exploitation (e.g. Bhave, 1994; Davidsson, 2003; McKelvie & Wiklund, 2004). In addition, some argue that entrepreneurial processes are socially constructed through human interaction (e.g. Sarasvathy, 2001; Johannisson, 2005).

As a result, in this study, the primary unit of analysis is the entrepreneurial process, which is influenced by individual(s) behaviour and the surrounding environment. The interest here is in entrepreneurial processes. In order to understand the behaviour of individuals in such processes and to address the current lack in empirical research, there is a need to find answers to what individuals actually do when they initiate and shape new venture ideas. Similarly, the understanding of the sources of venture ideas remains mainly conceptual, and there is a need to shed light on how venture ideas are actually nurtured into being. It is also central to increase the understanding of how initial venture ideas are actually developed and brought to the market. Therefore, it is regarded as important to increase academic insight into the nature of entrepreneurial processes in this specific context. Consequently, this study strives to find answers to the following three questions:

1. How do design entrepreneurs shape their venturing career?
2. How do design entrepreneurs enact their own entrepreneurial career and co-construct that of others?
3. How are entrepreneurial processes initiated by design entrepreneurs jointly organized with external actors?

1.2. RESEARCH PURPOSE AND SIGNIFICANCE

There is hardly any previous empirical research that explains what design entrepreneurs actually do in association to their entrepreneurial processes. In addition, entrepreneurship researchers continue to lack an understanding of the origins of venture ideas as well as the development of such ideas into viable business concepts. Rather than assuming that entrepreneurial processes and venture ideas are constant in time, this study will examine how design entrepreneurs adjust emerging venture ideas to enable entrepreneurial processes in dynamic market settings. Consequently, the general aim of the study is to:

Increase our understanding of design entrepreneurs as enactors of their own entrepreneurial careers and amplifiers of others’ new product development processes
This study supports the idea of a comprehensive framework for entrepreneurship which incorporates the effects of individuals, identification of venture ideas, modes of exploitation, and the institutional and industrial environment. However, it makes sense to be aware of the challenges, confusion and complexity which may derive from the decision to examine entrepreneurship from such a multidisciplinary scope. The underlying rationale for this choice is that a multidimensional research scope is appropriate in order to increase our understanding of entrepreneurial processes in association with the specific context of design entrepreneurship. Some of the potential problems with a multidisciplinary research scope are more or less inherent with the research field (Shane, 2003). Entrepreneurship as a field of research is relatively young, and it takes time to build systematic knowledge. Reviewing previous entrepreneurial process literature raises some important observations related to the applied approaches and concepts. Instead of building on previous models, entrepreneurship researchers tend to create new models and definitions for their particular personal interests. Therefore, it is important to conduct a thorough literature review and present the complexity and multidisciplinary nature of previous entrepreneurship literature. Moreover, this study relies on interviews with selected design entrepreneurs and external actors as well as on an analysis of previous field-specific investigations. In order to provide explanatory information, the focus is on examining design entrepreneurs who are about to become self-employed, or have fairly recently decided to. This study contributes particularly to the understanding of how new venture ideas emerge and are brought to the market.

Consequently, this study aims to make four major contributions to the specific field of research, by examining and comparing the explanatory power of previous research in the given empirical context. I kindly refer to Chapter 8 for a more thorough review concerning the contribution objectives. According to Davidsson (2005), there are many similarities and differences between entrepreneurial processes in various contexts. Therefore, the assumption is that research on the conceptual level, or findings from large and diverse samples, are not particularly successful in trying to explain entrepreneurial processes in different contexts. Instead, this study is aware of the existing heterogeneity and examines entrepreneurial processes as being context dependant. The underlying argument is that there is a need for a deeper understanding of the entrepreneurial process; otherwise, there will remain difficulties in explaining the development of entrepreneurial processes in this and other contexts.

First of all, this study makes a contribution by bringing together, structuring a framework and carrying out the interpretations by considering the explanatory power of previous entrepreneurial process research in this empirical context.

Secondly, this study contributes to entrepreneurial process research by addressing the initiation and development of entrepreneurial processes. The aim is to contribute by means of a comprehensive explanation of the relation between process activities and agents. The explanation builds on analyzing and comparing previous process models with each other, and with the data underlying this study.

Thirdly, this study contributes to entrepreneurship process research by including the involvement of a range of external actors in the entrepreneurial process. It is seen as important to include external actors because they may explain why previous
entrepreneurial process models are not capturing the interaction between activities and agents associated with entrepreneurial processes.

Fourthly, this study contributes to entrepreneurship research by introducing industrial design, and more specifically design entrepreneurship, as a new field of entrepreneurship research.

1.3. SCOPE AND LIMITATIONS

It is regarded as important to state limitations because they will narrow the overall scope of the research. This study focuses on the design industry as the field of empirical inquiry. The main research interest is associated with entrepreneurial and business-related (i.e. economic) outcomes in relation to the specific research context. In that sense, it is acknowledged that industrial design can also be described as an innovation or creative process that is, for instance, associated with product development. Here the focus is primarily on entrepreneurial processes, without forgetting their close relation to these other process views. Accordingly, in this study, the major unit of analysis is the entrepreneurial process. The results will be applicable on this level of analysis, but future studies are required to understand the phenomenon on another level of analysis (e.g. the business, social, economic or political environment).

The theoretical scope of the research is limited to entrepreneurship process literature. In addition, industrial design-related literature is to some extent referred to since it helps to integrate entrepreneurship and the field of industrial design, as well as increase the precision of the research findings. For instance, it is seen as important to build a conceptual relationship with previous literature on professions, professionalism and design management because such literature explains why self-employed designers are unique as entrepreneurs. Nevertheless, this study draws primarily from the field of entrepreneurship and business research. The theoretical context is multidisciplinary in its nature, since the theories applied derive originally from the disciplines of psychology, economics, and sociology. It is necessary to apply a multidisciplinary approach and explain entrepreneurial processes from several theoretical standpoints in order to build on previous research contributions (e.g. Choi & Shepherd, 2004; McKelvie & Wiklund, 2004; Rasmussen, 2006) and, moreover, to respond to recent research requests (e.g. Shane & Venkataraman, 2000; Davidsson, 2005). In that sense, the selected theoretical research approach is an increasing trend within recent entrepreneurship research. Prior efforts commonly attempt to bring research from selected disciplines together (e.g. Gartner, 1985; Shane, 2003), and to put theories forth in specific conceptual frameworks (cf. Low & MacMillan, 1988; Venkataraman, 1997; Gartner, 2001; Low, 2001; Davidsson, 2003, 2004), or more concretely into empirically validated research models (e.g. Bhave, 1994; Sarasvathy, 2001). Consequently, this study is limited to the entrepreneurial process, focusing particularly on human behaviour throughout the entrepreneurial process and the emergence of new venture ideas. Further, this study focuses on the early phases of entrepreneurial processes, and, therefore, many kinds of business development and growth models are excluded (e.g. Frank & Lueger, 1997: Herron & Robinson, 1993). Similarly, stage models are excluded (e.g. Greiner, 1972, Churchill and Lewis, 1983).
Due to its multidisciplinary nature, the field of entrepreneurial process research remains to some extent dispersed. Therefore, it is necessary to draw its boundaries somewhere. This study set of from building on previous literature reviews on the subject, but during the research process I have become aware of some additional theoretical representations. Some of them are incorporated in the theoretical discussion set forth in Chapter 2 and 3, whereas others are to some extent ignored in my line of interpretation. Instead, I strive to show openness towards disregarded theoretical representations in Section 7.3.5.

The empirical scope of the research is limited to the Finnish design industry. As a result, this study is limited to a certain national economic and industrial context which is empirically examined in the period 2006-07. During the preceding ten years, the economy of Finland and EU had grown relatively rapidly and the examined field had encountered some structural changes which will have an impact on the interpretations from this study. Many of the processes and outcomes from the Finnish context may appear to resemble those in other Nordic countries, as well as in other European countries and the USA. However, the present study does not aim to generalise research findings, taking into account the applied research methodology and its limitations. In this study, the major sources of information are the interviews with design entrepreneurs, who primarily represent consumer-product design and also to some extent interior and fashion design. Their entrepreneurial processes aim either on service or own product provision. In addition, a few of the cases contain processes that combine these, or they are planning to do so in the future.

1.4. MAIN CONCEPTS

To begin with, in this study, entrepreneurship is defined rather broadly as follows:

Entrepreneurship is a complex and recursive process of identifying and developing innovative, imitative or competing business ventures. Such processes emerge via human interaction within or outside formal organizational boundaries, via a range of modes of bringing venture ideas to the market.

The definition focuses on entrepreneurship as a process. The underlying assumption is that the advancement of such processes requires identification or creation of venture ideas, as well as decisions and actions that are taken by involved individual(s) related to development and execution of these ideas. This definition covers entrepreneurship in an economic-commercial domain. In accordance with the definition, it is important to state what is regarded as entrepreneurial activity and what is not. Here, the underlying belief is that entrepreneurship does not require new firm formation. Instead entrepreneurs may use other market mechanisms to advance their entrepreneurial processes. In addition, the basic idea is that entrepreneurial venture ideas may emerge during the process, and they may constitute either new innovative offerings or new imitative, competing activities. Finally, normal business and non-entrepreneurial growth is excluded from the definition because the assumption is that entrepreneurship requires new entry and alertness to new market openings (Davidsson, 2004).

An entrepreneurial process includes all elements and activities from the initial sources for a venture idea, or the activities towards the realization of a new business venture,
until the process is either terminated or the venture idea is introduced to the market with regular sales. As pointed out by Davidsson (2005), due to the extreme variability across various processes, a more precise definition of the start- and end-points is not possible. The underlying assumption is that such processes are typically complex, multifaceted and they proceed through human interaction. Some researchers subdivide, at least conceptually, entrepreneurial processes into two interrelated sub-processes, which are identification (discovery) and exploitation (Shane & Venkataraman, 2000). However, it may not always be possible to empirically attribute activities explicitly to either one of the processes (cf. Davidsson, 2005). Sometimes, researchers define entrepreneurial processes as sequential and linear: first venture ideas are identified and then exploited (cf. Shane, 2003; Shane & Eckhardt, 2003). However, the limited empirical evidence suggests that the processes of identification and exploitation are strongly interrelated, and that the activities can be completed in almost any sequence (e.g. McKelvie & Wiklund, 2004). In contrast, some researchers claim that the process is socially constructed via human intervention, based on heterogeneous preferences and expectations (cf. Sarasvathy et al., 2003). In that sense, entrepreneurship is the process that brings together and organizes thoughts, resources and people (Johannisson, 2005). The creative process view suggests that human action is not strictly rational, and, thus, human behaviour is essentially creative (Buchanan & Vanberg, 1991).

It is important to understand that this study is not based on an assumption of a two-step linear process which simply moves from identification to an exploitation phase. On the contrary, the argument here is that an entrepreneurial process includes elements from identification and exploitation, but in reality these are closely interrelated and the process evolves via a close interaction between the two. This interaction in turn requires human interference through actions and decisions during the process. Compare this relationship to deductive and inductive research (moving either from theory towards empirical observation, or vice versa). In practice, all research is more or less conducted in the middle ground, where the researcher moves frequently and sometimes without logic between theoretical (if nothing else, then previous knowledge) and empirical observation. This may be required to make sense of an unknown and complex phenomenon. Nevertheless, ultimately, many researchers would claim that their research process was either moving from theory to empirical observation or vice versa. Similarly, when discussing entrepreneurial processes, by referring to identification and exploitation a researcher can conceptually explain complex phenomena, without ignoring the complexity or the iterative nature of entrepreneurial processes.

Moreover, in this study, venture ideas (i.e. opportunities) are defined as potential market openings, which may imply the creation of an entire business venture (read: organization), but also a product or service-related idea. Previous researchers frequently use the term “opportunity” to describe potential market openings. However, other researchers criticise the term, as its definition assumes certain profitability, and thus lacking the concepts of risk and uncertainty. Instead, for example, Davidsson (2003, 2004) suggests that researchers should use the term “venture idea”, when referring to opportunities without certain positive outcomes. In this study, the term “opportunity” is used when appropriate to be consequent with referred literature. However, the term “venture idea” will otherwise be used to signify the present uncertainty of future outcomes. In addition, creative ideas (e.g. OPM, 2006) refer to similar ideas to those
that are internally stimulated according to Bhave (1994), or ideas that are to some extent effectuated into being (e.g. Sarasvathy, 2001). It is important to recall that even if creative ideas derive from an individual’s creative mindset and needs, the emergence of such ideas is bound to be influenced by the surrounding environment. In any case, they differ from externally stimulated ideas, since they do not initially emerge to address an identified market-related demand.

This study recognizes the challenge of trying to define what design practitioners actually do. According to Heskett (2001:18) this is hardly surprising when considering the confusion that surrounds the word “design”. Consequently, as Heskett points out it is possible to construct a seemingly nonsensical sentence, in which every use of the word “design” is perfectly grammatical:

Design is when designers design a design to produce a design.

Concerning the word “design”, in English it incorporates to some extent a sense of quality, whereas the Finnish word “muotoilu” or the Swedish word “formgivning” are more neutral. Here the intention is to remain neutral on this point, and simply emphasize that industrial design incorporates both the design of machinery and equipment as well as design of consumer products and furniture. This study focuses more on the design of products and product concepts, but also to some extent on the design of interiors, textiles and equipment. For instance, Verganti (2003) suggests that design is the integrated innovation of function and form. In this study, industrial design is defined as the human power of conceiving, planning, and making products that serve human beings in the accomplishment of their individual and collective purposes (Buchanan, 2001:9). Accordingly, ‘power’ is the efficient cause or agency of action in design. It resides in human beings as a natural talent that may be cultivated and enhanced through education. ‘Conceiving, planning, and making’ is the final cause, in the sense that it identifies the sequence of goals towards which design thinking and practice move. ‘Products’ represent the formal cause, in the sense of the formal outcome of the design process that serves human beings. Finally, ‘in the accomplishment of their individual and collective purposes’ represents the material cause of design, in the sense that the subject matter or scope of application of design is found in the activities, needs, and aspirations of human beings. The definition suggests that design is an art of invention and disposition, whose scope is universal, in the sense that it may be applied for the creation of any human-made product (Buchanan, 2001).

It is challenging to define and classify entrepreneurial processes, and thus it makes sense to focus on a small number of similar processes (cf. Davidsson, 2005). Here, the focus is on entrepreneurial processes in association with industrial design. This implies that the processes are either expected to build on activities that advance industrial design services or product design. Consequently, in this study, the emphasis is on industrial designers who have espoused an interest towards entrepreneurship, namely design entrepreneurship. Design entrepreneurs are expected to have previous education or experience from working with industrial design. In addition, they are about to become, or have fairly recently become, self-employed. More specifically, they are assumed to be working as freelancers, and/or to be developing new design services and/or products which they sell, or have the intention to sell, on the market.
1.5. HOW THE RESEARCH IDEA DEVELOPED

This thesis is the result of a research project that was launched about five years ago, in the spring of 2003. Back then, I had recently graduated with a Master’s degree in economics with a thesis on start-up companies and business incubation.

Originally, my idea was to continue studying business incubation and social capital, as was the theme in my Master’s thesis. However, in June 2003, I visited a doctoral seminar in Maryland, Washington, which was organized by Professor Scott Shane. The seminar focused on theory building and empirical testing of the factors that shape the identification, evaluation, and exploitation of venture ideas, and the creation of new ventures. Consequently, my interest was awakened sufficiently to change the research focus and contribute to the relatively new and unexplored field of entrepreneurial process research. Since the seminar in 2003, I have systematically collected and reflected over information and knowledge associated with entrepreneurial process research. Moreover, I have also gathered knowledge regarding entrepreneurial processes while working as an Assistant, Lecturer and also as an Assistant Professor, within the major Entrepreneurship and Management at the Hanken School of Economics. In addition, I have previously experienced new business creation, development and decline, and currently I am a shareholder and a board member in a SME, as well as a member of the executive board in the business incubator Start-Up Center, Helsinki School of Economics. Consequently, I continuously add to both my scientific and practical insights associated with entrepreneurial processes.

At the beginning of the research process, I had only a limited scientific or practical understanding of industrial design. Nevertheless, my initial interest in the specific research context was formed when collecting some of data for my Master’s thesis by interviewing entrepreneurs in a design-orientated business incubator in Lapland (Design Park, University of Lapland). Somehow, these respondents stood out from entrepreneurs interviewed at other Finnish business incubators. Perhaps their generally positive attitude and creative energy made an impact on me as a researcher. In any case, since then I have been more receptive towards information associated with design entrepreneurship. Eventually, these previous experiences, new insights gathered, and the long and intensive discussions with my former colleague Doctor Jan Sten, led to the decision to collect empirical data from this particular empirical context.

Consequently, my pre-understanding of entrepreneurship has assisted in directing the research focus towards a topic of relevance, both from a scientific and a practical perspective. In that sense, the conceptual insights from previous researchers have offered a structure to establish and carry out this study. However, the limited pre-understanding of the empirical context has made the research process more tentative. The selected research approach allowed me to build understanding and insight by combining theoretical and empirical knowledge during the process. As a result, it is likely that the interpretations and associated analysis have resulted in interpretations and reflections that are more vigorous than they would have otherwise been. However, special attention has been given to ensure that concepts and findings do not unintentionally change their original implication. There was a potential risk related to my learning process as the work proceeded.
1.6. THE RESEARCH PROCESS AND STRUCTURE OF THE STUDY

This section briefly introduces the reader to the research process and the structure underlying this study. The presentation aims at describing how various chapters contribute to increasing the understanding of the interaction between activities and agents in processing the emergence of new ventures.

To address the gap in extant research, a qualitative methodology is applied to examine entrepreneurial processes associated with industrial design in Finland. More specifically, the selected research approach permits a modification of the research process as a result of unanticipated empirical findings. Similarly, theoretical insights gathered during the process will influence the process development. The research process advances by first widening and then deepening both theoretical and empirical understanding concerning the emergence and development of entrepreneurial processes. The theoretical discussion is based on previous literature that captures relevant activities or elements of entrepreneurial processes.

Figure 1 introduces the research process. At the outset, relevant entrepreneurship research was reviewed and analysed (arrow A) to increase understanding of previous entrepreneurial process-related research. In addition, the review assisted in selecting an appropriate research method, and also in stating the primary purpose and the three research questions. The conceptual state of entrepreneurial process research provided limited support for empirical studies. Therefore, theories would potentially be built during the process rather than before entering the field. Nevertheless, a preliminary conceptual process model was created, based on my interpretations of previous research. This model included identified process elements and relied on the process drivers and modes as identified in previous research. In addition, design entrepreneurship in Finland was selected as a suitable empirical research context. Next, an industrial analysis was conducted to increase awareness of the specific empirical context. This was important, since I had only a vague and limited previous understanding concerning the conditions of this specific research context. The analysis provided a preliminary understanding concerning the context, and was assumed to assist in planning the collection of data from the field. Thereafter, suitable design entrepreneurs were selected and interviewed, with the aim of acquiring rich data related to the research problem (arrow B).

The preliminary interpretation based upon the literature review, industry analysis and from conducting interviews suggested that design entrepreneurs enjoy working with idea creation but have limited resources to bring these to the market without external assistance. Thereafter, I felt the need to understand the influence of external actors in as much depth as possible. As a result, the preliminary conceptual process model was modified in accordance with selected additional literature. The significance of external actors was identified in association with decision-making and activities during the process. As shown in Figure 1, the empirical research continued by examining the role of external actors in the entrepreneurial process. The findings increased the understanding of the interaction between design entrepreneurs and external actors, but also suggested more complicated cycles and modes of change than could be anticipated based on previous research (arrow C).
A Review of entrepreneurship literature and previous entrepreneurial process related research.

B Completion of an industrial analysis and interviews with selected design entrepreneurs.

C Interviews with external actors to examine their role in the entrepreneurial process.

D Interpretation of interview material with external actors and overall empirical interpretive reflection.

E The explanatory power of the theoretical discussion in the given empirical context.

Figure 1  The research process

Data from external actor interviews were interpreted, and thereafter data collection was halted and an overall interpretation begun. It was seen as essential to compare interpretations from interviews with design entrepreneurs and external actors as well as to compare these with the conceptual discussion. The interpretations revealed an identifiable pattern for explaining how entrepreneurial processes appear to unfold in this empirical context (arrow D). The findings and interpretations were matched up with the present and previous conceptual process models, which resulted in a new conceptual framework. The findings from this study showed the explanatory power of the theoretical discussion in the given empirical context. Finally, the interpretation between theory building and data analysis was halted when I felt that the interpretations and reflection no longer brought any new significant findings (arrow E).

Consequently, this study contains eight chapters grouped into two parts. The first part includes four chapters (including chapter one) which aim to introduce the reader to the subject. Chapter 2 begins with a short introduction to industrial design in Finland (2.1) and continues with introducing previous research on design related novelty (2.2). Next design product development (2.3) and design related collaboration (2.4) are described more thoroughly. The chapter ends with a short summary (2.5). The aim of Chapter 3 is to set forth the theoretical background of the study by introducing the conceptual context of entrepreneurship and entrepreneurial processes more specifically. This chapter commences by justifying a process approach (3.1) and introducing the elements of entrepreneurship (3.2) as identified in previous research. Thereafter, the discussion continues regarding the foundations of entrepreneurship process theory (3.3) and the characteristics of process models (3.4). Before the chapter ends with a summary of the theoretical discussion (3.5), the conceptual assessment offers a critical discussion concerning previous entrepreneurial process models, and sets forth a preliminary conceptual model.

The purpose of Chapter 4 is to describe the research methodology applied in this study. This chapter commences by introducing the interpretive research approach (4.1) and the role of the researcher (4.2). Next, the process of data construction and interpretation are
discussed in detail (4.3). This is followed by a critical reflection of the overall applied methodology (4.4).

The second part of the study includes four chapters. Chapter 5 presents case descriptions based on interviews with design entrepreneurs. Each of the eight design entrepreneurs (5.1-5.8) are analysed based on their underlying reasons for becoming self-employed, on how they experience the emergence of venture ideas, and on their accessibility to necessary resources and choices regarding bringing their venture ideas to the market. The chapter finishes with a summary and description of respondent identities (5.9). Chapter 6 focuses on interviews with external actors. This chapter starts with an overall description of the external actors (6.1), and then their needs (6.2) and the fundamentals for relationships with design entrepreneurs (6.3) are discussed. Next, product development processes are examined (6.4), followed by decision-making related to product development (6.5) and commercialization (6.6). The chapter finishes with a summary and description of respondent identities (6.7). Thereafter, Chapter 7 aims at setting forth the researcher’s interpretations from the design entrepreneur and external actor interviews. The chapter begins by interpreting design entrepreneurs’ entrepreneurial processes (7.1) based on the process elements and activities (7.1.1-7.1.5). The interpretation continues by setting out opportunity based reasoning (7.1.6) and behaviour based reasoning (7.1.7). Thereafter, the findings from design entrepreneur interviews are presented along with suggestions for the continuance of the study (7.1.8). Next, the interpretations based on external actor interviews are outlined (7.2) by presenting a comprehensive process analysis based on their experiences from design entrepreneurship and product development processes (7.2.1-7.2.3). The section ends by setting out conclusions based on the findings from external actor interviews (7.2.4). The chapter concludes by bringing together research findings (7.3) based on the interpretations of the design entrepreneur and external actor interviews. The assessment begins by focusing on the emergence of new ventures (7.3.1) and continues by discussing the roles and positions of the actors involved (7.3.2), and by merging entrepreneurial and product development processes (7.3.3). After that design entrepreneurship is framed as a dual process (7.3.4) and openness is shown towards theoretical representations ignored in the selected line of interpretation (7.3.5).

The section finishes by proposing a conceptual framework for design entrepreneurship. The aim of chapter 8 is to bring the study to a close by discussing the research findings. The chapter starts by briefly returning to the research problem and the questions of this study (8.1). The following two sections continue by presenting theoretical contributions (8.2) and practical implications (8.3). The section following this presents a critical overview of the applied methodology and the research process underlying this study (8.4). Finally, the chapter finishes by suggesting some avenues for further research (8.5).
2 INDUSTRIAL DESIGN AND DESIGN ENTREPRENEURSHIP

The purpose of this chapter is to introduce the reader to the field of design entrepreneurship by shedding light on relevant industrial design and new-product-development-related literature. The chapter commences with a presentation of industrial design in the Finnish context (2.1). The review continues by discussing design novelty (2.2) and by discussing the relevance of selected new product development processes (2.3). Thereafter, design collaboration is introduced as a characteristic means for bringing new venture ideas to the market (2.4), and finally the preceding chapter is summarized (2.5).

2.1. DESIGN IN THE FINNISH CONTEXT

The design sector (as is the creative industry in general) is particularly localized in the suburban area of the capital, Helsinki, and to some extent in the cities of Lahti and Rovaniemi (Lindström et al., 2006). According to Valtonen (2005a) there are currently several hundred professional industrial designers in Finland. More accurately, the Finnish industrial design sector employs around 900 industrial designers and the average age of the people working in the industrial design firms is a little over 35 (Salimäki et al., 2004). Most agencies are small, typically employing only one designer-manager in addition to a small number of employees. There are a few larger design agencies, of which the largest has over thirty personnel, and a handful of others with between eight and twenty personnel. Nokia, Fiskars, Suunto and Metso Paper are the largest in-house design employers, and of these the Nokia design group is by far the largest. According to Salimäki et al. (2004) and OPM (2006), the need for industrial designers will increase in the future. For example, the Finnish Government has estimated the overall demand for industrial designers to be currently around 1,900 designers. The Government expects this demand to grow to 2,500 professional industrial designers by 2010. All of these industrial designers will graduate from the universities and universities of applied science (Salimäki et al., 2004).

In Finland, as in other Scandinavian countries, industrial design (hereinafter: design) is highly dependent on the public sector and the state (Valtonen, 2005a). The state funds all education, which is free for the students, and the government also supports many of the different actors and organizations associated with design. At least since the early 1990s, there have been policy-level attempts to develop business activities in relation to culture and creative industries in Finland. Similarly to other nations (e.g. Sweden, Denmark, Norway, Ireland, New Zealand and Korea), the Finnish government established the Finnish design policy in 2000, which set design as a main factor in the country’s competitiveness and national innovation system. According to Valtonen (2005a), the Finnish research and technology policy can be divided into three different steps of development: Firstly, the construction phase built on structures that were needed for the promotion of science and technology in the post-war industry. Design became a tool for promoting the nation, but it had only limited impact on the industry or the research policy. Secondly, in the early 1980s, the technological development phase focused on developing and implementing technologies for industry. Design gained a more integrated role and designers were seen as members of a group of experts, with
limited general influence. Thirdly, since the introduction of the national innovation system in the early 1990s, design has gained an increased importance. The design ideology corresponds well with the idea of innovation: looking at things with a creative mind to find new solutions. The aim of the innovation system was to encompass all parties in the research policy that are involved in producing or using new research results. The system allowed the creation of a larger social discussion of what the industrial development in the country was to be. Nevertheless, it might be still too early to state all the potential outcomes of implementing the system (Valtonen, 2005a). For further insights concerning the design practice in Finland, I kindly refer to Valtonen (2007).

Despite the recent policy debate regarding the growth potential of creative companies, most design entrepreneurs want to keep their businesses small. Regarding the business features, most industrial design agencies can be characterized as micro firms. In 2002, there were 796 industrial design agencies according to the Central Statistical Office of Finland, and these companies had an average revenue of around €100 000 and typically employed only the owner-manager (Salimäki et al., 2004). In contrast, Piira and Järvinen (2002) found in their fairly limited survey including 30 Finnish industrial design agencies that the average company revenue was around €200 000 in 2000 and €220 000 in 2001 (est. 2002: €220 000). The responding firms typically employed either 1 person (40% of respondents) or 2-4 persons (40%). In addition, 6 design agencies reported more than 4 employees. According to Salimäki et al. (2004), in line with the previous discussion, the large majority of companies within the field of creative industries employ less than four people. Only a fraction of the industrial design agencies have more than twenty employees.

Furthermore, regarding industrial environment, in Finland it is traditionally characterized by heavy industry (paper, metal, electronics and shipbuilding). This has resulted in the situation that design is commonly conducted by smaller industrial design bureaus. Hence, they design mainly machinery and mechanics. In addition, Finland has a furniture industry, which is mainly focused on domestic sales. Therefore, it might be harder for, for instance, furniture and interior designers to find employment in Finland than elsewhere in countries with less emphasis on heavy industry. The exceptionally deep recession in Finland in the 1990s had some severe consequences for industrial design. According to Valtonen (2006), the recession was not followed by a recovery of domestic demand as in many other countries, but by a rapid structural change and export-led growth.

Piira and Järvinen (2002) conducted a survey on design utilization among Finnish industrial companies (560 companies, 165 responses, response rate 29.5%) of varying size categories (20-99, 100-499 and over 500 employees). The study revealed that company size positively influenced the application of industrial design. In companies with revenue below €1.68M only 25% used design, and in companies with a revenue over €1.68M, 60% used design. On average, 52% of the respondents used design. This is similar to results from Lindström et al. (2006), who conducted a similar study among Finnish industrial companies. More specifically, Lindström et al. found out that 54% of the respondents did not use design at all in their business, 23% used design infrequently and 23% used design frequently. At least according to Piira and Järvinen (2002), the major reason for lack of use or infrequent application of design was its insignificance.
for the respondents’ particular industry. Most of these respondents were subcontractors who possibly receive design-related features from their clients.

Moreover, there is variation among industrial companies in the way in which they organize the design function, either internally or externally (Valtonen, 2005b). According to results from Piira and Järvinen (2002), only a handful of Finnish industrial companies have their own design departments. In fact, the results indicate that many companies that are famous for their design actually purchase design externally. Although these companies lack in-house designers, they have a tradition of using design and experience in purchasing it. Overall, 48% of the respondents had purchased design services in the study made by Piira and Järvinen (2002). The companies generally made the selection of the service provider based on their previous references, knowledge of the industry and word-of-mouth. Personal relations were seen as important, which emphasises the need for self-promotion among design entrepreneurs. The customers increasingly ask for complete design solutions, which only larger agencies are able to offer. The price of design was not seen as significant for selecting a service provider, even if the price level was seen generally as reasonably high. In general, the experiences of using design were good (37% had very good experiences), and design was commonly seen as significant for the business’s success (Piira & Järvinen, 2002).

Until now, many Finnish companies have avoided potential risks related to the usage of industrial designers, and, thus, have not invested considerable resources in developing their design function. According to Hakatie and Hasu (2003), most companies that use design do not even know the share of design in their overall product development budgets. External design entrepreneurs are commonly involved in specific product development projects, and it is often the project manager who decides if and from where design is potentially purchased. In addition, they claim that development projects are seldom documented from a design perspective because project managers’ change frequently and designers are used infrequently. Consequently, in many companies, design-related information and experience is not systematically collected, which in turn provides a bad starting point for developing the foundation for developing a design function. On the other hand, Finnish industrial companies generally seem to have a willingness to use design, but available resources are insufficient and their management deficient at making design-related investments. The associated risks are evident, since design-related work is difficult to organize, and it does not progress methodically even if systematic development is the basis for productive operations (Hakatie & Hasu, 2003).

As more companies have begun to use industrial design services, the design agencies have also developed, grown and specialised (Valtonen, 2006). For example, design agencies are increasingly assisting client organizations in changing their business operations by bringing design insight into the corporate vision. The clientele is often not capable of articulating why or in what direction the change should progress, so an industrial designer can help them to visualize future strategies and visions (Valtonen, 2005c). However, Hakatie and Hasu (2004) argue that design agencies often overlook the focus on strategic planning in their service provision, where design would be used to portray the business idea and associated products and services. Despite recent developments, product design remains an important service, both for the agencies who sell them and the industry who purchases these services (Piira & Järvinen, 2002).
Smaller agencies lack the resources to start several client projects annually. Therefore, Piira and Järvinen (2002) suggest that such agencies should increase networking with each other, since larger projects bind resources for a long period of time. The small domestic market size forces industrial designers to offer a broad palette of services, consequently, in addition to traditional design services, industrial designers also offer graphic, exhibition, and environmental/interior design.

2.2. DESIGN NOVELTY

Concerning product related novelty, Verganti (2003) suggests that design-driven innovation is based on the idea that novelty of message and of design language prevails over the novelty of functionality and technology. In that sense, individual products have their particular language and meaning. In addition to appearance and functionality, the product’s emotional and symbolic value creates meaning to its user. In contrast to design driven innovation, innovation also emerges from the availability of new technology and from explicit and immediate customer-related needs. In both of these cases, the knowledge concerning product language is often secondary, which probably explains why it is usually shaped during the product development process rather than at the start. Clarke and George (2005) argue that design should derive from consumer-related research that identifies needs and falls within manufacturing guidelines and financial viability. Cooper et al. (2003) describe design as a creative activity using market and company information to produce a two- or three-dimensional product that satisfies the consumer and aids company profitability. In addition, it plays a key role between technology and the marketplace, building new technologies into a product that is acceptable in the commercial marketplace. Durgee (2006) suggests that many design purchasers encourage designers to simply “draw what you want, what feels right”, and forget all constraints and just sit and create. However, designs that people believe have emerged from pure creativity are often tightly constrained by many social variables up front. Durgee (2006) goes further and argues that neither a great design nor a great designer is necessary or sufficient to achieve market success. Instead, great marketing is often necessary. This conflicts with the classic conception of the designers’ intuition as the key to achieving the instinctive connection between artefact and the viewer. Instead, Durgee (2006) claims that it is the marketer who in reality is the one who manages the viewers’ interpretation of that artefact.

According to Aggeri and Segrestin (2007), product development performance has become a key issue, for instance, among car producers. The problem is, however, that innovation seeks to outperform dominant design, whereas project development processes often target well-defined areas (costs, lead times, quality, etc.). As a result, the methods to develop products can induce negative effects on collective learning processes, which will have managerial implications for innovative developments. For instance, Booker et al. (2007) explain that specific cost information affects designers’ priorities as well as their opportunities, which might be favourable or unfavourable depending upon the overall effect on a combination of performance measures.

Hakatie and Ryynänen (2007) argue that it is only rarely possible to define product or service-related requirements at the outset, since excessive demand specifications and predefined design processes may impair quality in operations of this nature. In line with
This, Suwa et al. (2000) emphasize that during a design process, industrial designers do not just synthesize solutions that satisfy initially given requirements, but also invent design issues or requirements that capture important aspects of the given problem. Therefore, it makes sense when Verganti (2003) encourages the early involvement of industrial designers in the innovation process, since it is in the beginning that understanding of meanings and languages will provide the maximum strategic impact. In addition, Sanchez (2004) suggests that platform-based product development increases strategic flexibility, since it enables integration of market-differentiating features and supports rapid innovation, cost-control and acceleration of supply times. Similarly, Halman et al. (2003) suggest that firms in many industries are increasingly considering these kinds of platform-based approaches, since they reduce complexity and leverage investments in new product development, manufacturing, and marketing. However, there is a clear gap in the literature when it comes to discussing the problems and risks related to implementing and managing product families and their underlying platforms (Halman et al. 2003).

Although product innovativeness may enhance product advantage, a high level of innovativeness is likely to reduce customer familiarity. Therefore, novelty can be damaging to new product success if customers are not familiar with the nature of the new product, and moreover, if innovativeness fails to improve product advantage. Calantone et al. (2006) suggest that companies may use existing technical and distribution abilities to enhance product quality and customer understanding. Consequently, product novelty should only be emphasized when it relates to the market-relevant concepts of product advantage and customer familiarity. Cooper et al. (2003) explain that design and innovation should offer customers or consumers value from both a price and a non-price perspective. It is the non-price aspects that contribute to quality, and, moreover, it is the designer who translates client needs into designs that embody the quality factors (e.g. performance, reliability, appearance, safety, durability, ergonomics or ease of use and also service) and that contribute to competitiveness within the market place. For instance, Hertenstein et al. (2005) reveal that companies rated as having “good” design are stronger on all financial measures except growth rate measures. Marsh and Stock (2006) suggest that knowledge retention and interpretation activities positively impact on a firm’s new product development performance.

2.3. DESIGN PRODUCT DEVELOPMENT

The means for bringing design-related products or services to the market do not necessarily differ significantly from any other product development processes. All business sectors emphasize customer focus because product sales are primarily based on customer demand and needs. However, the creation of design-related products or services does not necessarily always derive directly from customer-related needs (OPM, 2006). This is a special feature of the creative industries, whose product and service-related ideas may be born based on creative ideas, without having any foreseeable customer demand. Creative ideas can also be developed in accordance with identified customer needs. Sometimes product or service testing is not possible, for instance, due to newness, trends that change rapidly, or customers’ inability to express their true emotions. Consequently, in Figure 2, OPM (2006) suggests two rather different value-chains for companies that operate within creative industries.
According to the upper value-chain, business in relation to industrial design may commence from customer needs. In that case, a customer need or problem is identified before starting to develop and manufacture a product or service to respond with the identified need. On the other hand, the lower value-chain is quite typical for creative fields. Accordingly, it is possible that the product is born of a creative idea, and it may be actually produced before identifying a customer need or demand. In some cases, the idea can be tested with prototypes before the actual production, but sometimes prototyping is impossible or expensive.

Sebastien (2005) argues that to manage a process implies that design management should not interfere with the designer’s choices regarding the “quality” of design products, but rather take a supporting role by making the design process effective, efficient and lean through the co-ordination of tasks and information. In this case, design management is responsible for analyzing, identifying, mapping, and arranging various design tasks in sequential or concurrent orders. During the process, the management also handles the large amount of design information that must be precisely controlled, stored, presented, and distributed. This approach has its limitations because there is no guarantee that the outcome will be outstanding even if the process is well managed. In practice, the design process is very dynamic and not all work can be identified as a task to be systematically linked. The process approach is suitable for design and production processes in which efficiency has a high priority. In addition, describing and modelling the design process is useful for theoretical understanding (Sebastien, 2005).

There exist a number of innovation design and business-related process models. Typically, new product development processes capture all phases from strategic product planning to preparation for production and marketing. The fundamental aim of such processes is to get the right product to the market or customer as quickly as possible (Cooper et al., 2003). Among these phases, the industrial design process focuses primarily on concept generation, evaluation and refinement, as well as detailed concept design and communication of results. Previously, industrial designers were often placed near the end of the product development process, which significantly reduced their potential to influence corporate goals and strategies, but today designers operate more
regularly in all phases of product development processes (Yang et al., 2005). The following review is included to give the reader an understanding of design entrepreneurship in association with new product development.

Lewis and Bonollo (2002) point out that there is widespread literature on modelling the design process in the context of individual products and artefacts and of product development in industry. For instance, Smith and Morrow (1999) and McCarthy et al. (2006) offer extensive reviews on process models related to product design and development. Accordingly, in recent years an increasing amount of attention has been paid to the construction of process models for the product development process. Understanding and modelling a process is an important first step in the construction of managerially useful decision aids. Smith and Morrow (1999) distinguish between different levels of validity associated with process models. For instance, Cooper et al. (2003) suggest that new product development processes can be separated into three broad categories: predevelopment activities, including idea generation and establishing the need, followed by a number of preliminary market, technical, financial and production assessments; development activities, including physical development of the product; and post-development activities, including final launch of the product into the market place. Moreover, McCarthy et al. (2006) point out that early research on new product development has produced descriptive frameworks and models that view the process as a linear system with sequential and discrete stages. More recently, recursive and chaotic frameworks have been developed, both of which acknowledge that new product development progresses through a series of stages, but with overlaps, feedback loops, and resulting behaviours that resist reductionism and linear analysis. Consequently, the frameworks for interpreting and describing new product development are primarily based on three schools of thought, which reflect three different systems views (linear, recursive, and chaotic). Regardless of whether or not the process of innovation occurs in a linear, recursive or chaotic fashion, it comprises sets of identifiable activities (Adams, 2003).

Linear frameworks provide a simple and logical overview of the process structure and flows. According to Ingram et al. (2007), models of the design process tend to be essentially linear, reflecting the time-based pressures of project management and notions of goal-directed problem solving. McCarthy et al. (2006) suggest that they are suitable for new product development projects that are significantly close to the customer and for innovations that are incremental or sustaining in nature. Linear frameworks stem from traditional and logical project management methods that seek to deliver appropriate outputs on time and within estimated cost. The process of innovation is interpreted as a series of events and activities which are sequential and discrete in nature. Process control and efficiency are dependent on the co-operation, co-ordination, and communication of those that are involved in the process. Linear frameworks focus on the structure of process and the inter-stage connections, and attempt to explain how process behaviour affects product quality, execution of key tasks, product development costs, product reliability, product variety, and managerial complexity (McCarthy et al., 2006).

One of the best-known new product development models is the stage/gate innovation process. The model is originally based on a project development concept developed by NASA in the 1960s to make the management of large-scale, and complex defence
projects easier (von Stamm, 2003). Since then the model of new product development has been widely researched in a variety of organizations and contexts, and the research is located in a wide range of disciplines, including technology management, business policy, marketing and engineering. The research has resulted in various conceptual new product development models which have been validated both by previous researchers and industrial practitioners (Hart & Baker, 1994). Consequently, the stage-gate model originally presented by Cooper (1990) suggests that product development projects need to be reviewed at certain points in its development, and a go/no-go decision should be made (von Stamm, 2003). According to Cooper (2000:58):

“The stage-gate process is a conceptual and operational road map for moving a new-product project from idea to launch – a blueprint for managing the new-product process to improve effectiveness and efficiency.”

Consequently, the model starts from idea generation and moves towards product launch by passing through gates or “checkpoints” that separate the stages from each other. In that sense, there is not necessarily only one, but several decisions to exploit through the duration of the process. This is a sequential and ordered process of four to five stages of activities and decisions. These typically include concept development, product design, testing and validation, and product launch and ramp-up. The inputs into the system are new ideas and market needs; the system elements are resources such as designers, engineers and marketers; and the outputs are new products. Between the stages are gates or checkpoints where the progress and outputs are evaluated. The logical and systematic representation helps to organize and to comprehend the complexity of the process and to conceptualize the potential for parallel tasks and activities (McCarthy et al., 2006).

The stage-gate process reduces development time, produces marketable results and optimizes internal resources. However, while enabling a higher degree of control and understanding of the progression of a development process, such gates require variable tasks to be checked off against predetermined lists. As result projects are forced to wait at each gate until all tasks are completed, and, therefore, overlapping activities are impossible (cf. Cooper et al., 2003). In that sense, linear frameworks can reveal how inappropriate structure and poor control can result in planning and co-ordination problems, but these frameworks tend to ignore the behaviours and system features that govern the innovative capacity of the new product development process. According to McCarthy et al. (2006), this is in part because linear frameworks focus on and represent a structural logic which then facilitates and promotes understanding of the factors that govern process lead time and consistency. The result is a descriptive compromise between control and autonomy, each respectively influencing process reliability and process creativity.

Nevertheless, Tennity (2003) suggests that many companies that are active in new product development apply the stage/gate process model as best practice. This is something that, for instance, Cooper et al. (2003) emphasize too, claiming that a version of the new product development process is common practice in most manufacturing organizations today as a means of managing an integrated design and production team. The practice is often broadly internalized and ISO-certified, and it spells out roles and responsibilities to all involved parties. For the senior management, it is a critical investment management tool, and the execution of the process and the stakeholders’
participation becomes an element of the company. Therefore, Tennity (2003) argues that for a design entrepreneur to improve means for collaboration, it is essential to understand how other stakeholders construe the core process such as stage/gate. The core process defines the stakeholders’ language, and thus, should be the basis for tailoring the design entrepreneurs’ proposal and working methods. The process also provides a framework for integrating the design entrepreneurs’ efforts and will likely be the basis for the formal reviews and evaluations of results.

**Recursive frameworks** emphasize the feedback connections and nonlinearity in new product development, especially if greater levels of product newness or innovation are expected. For instance, Adams (2003) argues that, at best, linear models pay only cursory attention to turbulent creative activity; at worst the creative front end of the innovation process is ignored, thereby linear process models result in incomplete representations of the innovation process. Hence, any of the identified events may happen at any time during the process. Consequently, recursive frameworks seek to describe new product development as a series of small and large recursive cycles that represent project setbacks and restarts. This implies that activities are multiple, concurrent, and divergent, and moreover, that the process includes feedback and feed-forward loops. According to McCarthy et al. (2006), recursive frameworks challenge the idea of orderly sequences and are particularly suitable for radical innovations. The stages overlap and this creates fuzziness and disorder in the process. For instance, Suwa et al. (2000), stress that the design process progresses in such a way that the problem-space and the solution-space co-evolve. As a result, Cooper et al. (2003) identify the need to change from the sequential into a more concurrent approach of new product development. The integration of functions is assumed to improve co-ordination and communication in the project. In a similar manner, Aggeri and Segrestin (2007) argue that an interdisciplinary divide in product development has a negative impact on the advancement of knowledge in innovation.

Despite the increasing complexity, Cooper et al. (2003) feel a growing need for a process framework with clearly defined stages, people skills and technology since it will assist in integrating design and innovation in the extended enterprise. Based on their recent research, the authors have shaped a process that illustrates the link between all key activities and especially the relationship between design management and production activity. The process model enables design quality expectations to be developed early in the process, as the stakeholder requirements are simultaneously considered, alongside the business case and when feasibility is generally reviewed. It is in these phases that all the work should be undertaken to understand the total requirements of the product, to enable the ‘quality’ aspect to be communicated throughout the project, and to be assessed and reviewed at the stage gates throughout the whole process (Cooper et al., 2003).

On the other hand, Chiu (2002) calls for a process model of collaborative design to describe certain phenomena in which the design tasks are undertaken to attempt to reach the final design. He argues that collaboration is deeper than ordinary product development, a more personal synergistic process, and its process involves negotiation, agreement, and compromise in order to achieve success. Therefore, it is particularly important for all participants to understand their position in design collaboration. According to Chiu (2002), the design information is delivered from initial state to the
final state until the decision-making process is completed. The cyclic process involves consultation, negotiation, decision-making, and reflection. Negotiation is observed as the major task in decision-making in collaborative design. Consultation is an action to verify which decisions have to be made. Reflection is to confirm the decisions and initiate another cycle of information processing. In the process, stimuli and participants’ attitudes are also critical to decision-making. This model helps to understand how design collaboration can speed up the process through effective organization and communication by potential computer-supported systems (Chiu, 2002).

The interactive model for innovation put forth by Clark and Guy (1997) describes the role of various actors in new venture creation and product development. Innovation is defined as the first commercial application of a new product or process. The innovation process builds on the idea that both basic science and technological development generate a push for introducing new innovations to the market. Similarly, market needs and demand may generate a pull for introducing such new ideas. The interactive nature of innovation calls for the importance of various rather complex and diverse feedback processes. Accordingly, the model identifies two major types of interaction. The first focuses on relationships with customers, suppliers, and (where appropriate) collaborators. Monitoring the on-going supply and demand conditions can influence any or all of the development, production, and marketing stages, and lead to feedback within those stages. The second set of interaction arises when a firm’s internal technological or production competence proves inadequate for the task at hand. Then it may become possible or even necessary to appeal to a wider science and technology system. Clark and Guy (1997) claim that product developers will typically call on existing sources of knowledge whenever they encounter a problem in the innovation process. In the event that these prove to be inadequate, there then arises a need for further research, either internally or externally.

Ingram et al. (2007), criticize most product development process models because they end where consumption begins, at the moment when a product is launched in the marketplace. They also criticize designers and design theorists for ignoring the circuits of product development, consumption and use in which their work takes place, and to which it contributes. Instead, they argue that the reverse sequence is equally valid since consumption practices, symbols, and procedures develop over time and generate new venture ideas. Design activities and design processes are frequently initiated by perceived openings of this kind, perhaps more commonly than by defining specific design problems. Thus, these two sequences should be brought together since this results in a cyclical model of designing and consuming. The joint sequences indicate that consumer practices stimulate design, and that new products stimulate new practices (Ingram et al., 2007).

Chaotic frameworks, on the other hand, assert that the initial stages of new product development tend to be chaotic and that the final stages are relatively ordered. According to Adams (2003), two things are noticeable about these models: first, as a collection of models they present a more disorderly aggregation of activities in which boundaries between events are less clear; second, they describe a process that appears to commence in an informal and fluid state to one that ultimately becomes more formal and rigid. For instance, Kim and Wilemon (2002) call the chaotic process initiation a “fuzzy front end”, which includes ideation, creativity and novelty. McCarthy et al.
regard the chaotic framework as an extension of the recursive framework. It assumes that chaotic behaviour can occur in new product development processes. Highly innovative processes are portrayed as systems with random-like and nonlinear behaviour that generate irregular or disordered actions. Such processes are relatively unpredictable because small changes in one part of the process can rapidly develop and take the system along new routes. According to Adams (2003), the few empirical studies in which chaos has been identified have utilized a longitudinal methodology and time series data.

As an example, Cheng and Van de Ven (1996) used a chaos theory algorithm adapted from physics when they examined the effects of feedback loops in new product development processes. Their results indicated that the process of innovation starts chaotically and finishes in stability. More precisely, they conceptualized four principal temporal pattern types borrowed from dynamical systems theory: fixed, periodic, chaotic and random. Using longitudinal time series data for two biomedical innovations, they produced phase plots to examine whether or not the patterns produced confirm to patterns produced by systems that are known to exhibit properties of the four temporal types. They discovered that the innovation process exhibits a chaotic pattern in the initial developmental stages and an orderly, periodic pattern in the late and closing activities of development. However, they were not able to identify the point at which behaviour shifts from chaotic to periodic. Nonetheless, their study suggests that latter stages of product development processes are better suited to linear frameworks (cf. McCarthy et al., 2006). On the other hand, Koput (1997) uses a chaotic framework, by focusing on the dynamics of searching for innovation. His results indicate that the innovation activities of searching, screening, and implementation are inextricably linked to each other and that understanding how process feedback loops influence these activities is an important and significant research challenge.

McCarthy et al. (2006) extend the linear, recursive, and chaotic frameworks, by viewing new product development as complex adaptive systems. They suggest that, together, these frameworks provide a complementary hierarchy or ladder of abstraction for interpreting and describing different types of new product development reality. Complex adaptive system frameworks are capable of facilitating interpretations of new product development reality that maintain a fit between descriptive stance, system behaviour, and innovation type. According to McCarthy et al. (2006), the theories and methods used to define and model complex adaptive frameworks are broad and complicated, and, moreover, commonly misunderstood as being concerned with solving the problem of complexity. Rather the opposite, it is regarded as impossible to understand overall system behaviours by first breaking the system into its essential parts and then aggregating observations in order to develop convenient and linear rules.

The underlying complexity derives from the agents that are involved in the system. Their decision-making abilities result in self-determination and exploration at multiple levels within the system. Nevertheless, complex adaptive frameworks have descriptive value in terms of studying, classifying, and defining the attributes and relationships that govern adaptive behaviour and outcomes in new product development processes. McCarthy et al. (2006) argue that such frameworks provide insights that complement the linear, recursive, and chaotic frameworks. This is because processes are viewed as systems of partially-connected agents, operating with strategic and decision rules that
promote or constrain the potential for self-organization and emergence. The result is adaptability, which implies that individual product development processes are able to switch between different process behaviours.

Consequently, the framework recognizes that nonlinearity and feedback can occur at multiple levels between individual agents and between groups of agents. This in turn drives self-organization and emergence, which together enable the process to be flexible and to exhibit different modes of behaviour. The other frameworks ignore these characteristics or use a reductionist approach to model and to aggregate behaviour. Moreover, the links and outputs created by the diverse agents are assumed to define the structure, flows, and performance of the process. Therefore, managing these kinds of new product development processes requires understanding of how decisions, agent variety, and agent connectivity will influence the pace of the process. The process is dependent on the connections and interactions between process agents. In that sense, the system configuration will govern the process ability to switch or toggle between behaviours that range from linear to chaotic to produce corresponding innovations that range from incremental to radical (McCarthy et al., 2006).

2.4. DESIGN COLLABORATION

Concerning collaboration, in the past design management has primarily focused on issues within the organization, but due to the emphasis on outsourcing there is a need to look at design and innovation in the extended enterprise (Cooper et al., 2003). Emden et al. (2006) argue that the partner selection process in the formation stages of collaborative new product development is a neglected research topic. Their study points out the importance of partner selection processes for creating competitively advantageous products through collaboration.

Industrial designers are currently moving from their traditional roles in the development process, in which they primarily address issues of styling and ergonomics, to a more creative contribution in generating new product concepts. This development has resulted in an array of ways for corporations to interact with industrial designers and design entrepreneurs. For instance, Boujut and Laureillard (2002) suggest that cooperation is an important issue in design today. It is both an academic challenge and an industrial reality. Consequently, corporations may seek outside expertise to add talent and technology it cannot maintain itself, to speed up development of products and services, and to initiate change and innovation (Tennity, 2003). Therefore, Walton (2003) feels that design entrepreneurs with their talents and resources in design can help generate a competitive edge by contributing skills that are missing or cannot be supported by clients. They can also be a source of innovation and creative thinking. According to Verganti (2003), the choice of approach in involving design entrepreneurs depends on a company’s particular innovation strategy. In order to be considered useful strategic partners, design entrepreneurs must understand the issues that managers consider in deciding a strategy, identify ways in which they could contribute to managers’ strategic decision processes, and they must learn to communicate their potential contributions so that managers understand them. However, Sanchez (2006) argues that most designers continue to occupy positions in their clients’ value creation
processes that are fairly downstream from their clients’ strategic decision-making processes.

DeCesare (2003) suggests that business partnerships require alignment around specific goals. Success or failure may come down to understanding, communication, and alignment on both internal and external values and drivers. Similarly, Hakatie and Ryynänen (2007) emphasize open communication and teamwork as critical in design entrepreneur-client relationships, since relationships are built on key attributes such as trust, openness, reliability, and performance. The process of service provision planning must be open to change as the objectives change. Long-term client relationships obviously reduce the risk of a quality specifications gap. As the work goes on, the consultant accumulates information about the procedures in the client organization, which reduces the chances for error. The quality specifications gap also can be reduced through flexible agreement practices that do not tie the design services down to potential process design errors, and which allow change if required (Hakatie & Ryynänen, 2007). For instance, DeCesare (2003) criticizes the design brief as a one-dimensional tool that can never recreate the passion and desire embedded in interactions, so it is important for design entrepreneurs to possess a sincere desire to understand their clients, and to have strong communication skills.

However, Hill and Johnson (2003) argue that clients do need ‘on brief’ creative outcomes and not just reassurance along the way. They regard it as necessary for creative-service providers to reduce client perceptions of high purchase risk. New ideas involve risks, so returns from such ventures are uncertain. Therefore, managers tend to believe in predictable incomes that come best from improving current operations and from protecting known customers and suppliers. Bstieler (2006) also highlights the role of trust, since its presence clearly differentiates between high- and low-performing collaborative relationships in new product development. Trust is also a powerful mediator, particularly as it relates to mitigating conflicts during partnerships, and it is achieved through timely, reliable, and adequate information exchange. This kind of communication behaviour exposes the partners to each other’s thought world, which helps to discover crucial needs as they develop, improves the harmony within the working relationship, and allows partners to feel like an integral part of one team. High levels of trust are unlikely to be reached without a balanced distribution of benefits relative to the individual efforts of the partners. The presence of conflicts turns out to be the single most important determinant of trust (Bstieler, 2006).

In general, the participation of suppliers as true members of a new product development team seems to result in higher level of benefits, especially in cases when a technology is in its formative stages (Petersen et al., 2003). For instance, according to Chiu (2002), collaborative design is an activity that requires the participation of individuals for sharing information and organizing design tasks and resources. Particularly in complex and larger projects, design often involves multiple persons or groups collaborating in the process. The purpose of design collaboration is to share expertise, ideas, resources, or responsibilities. The effectiveness of design communication becomes critical for sharing design information, in decision-making and co-ordinating design tasks (Chiu, 2002). However, when designers work with or inside an organization, it is the interface between functions that can be an issue, due to poor communication and lack of compassion among business functions (Cooper et al., 2003).
Verganti (2003) argues that companies wanting to deploy a design-driven innovation strategy need to access knowledge of the product languages and the dynamics of socio-cultural models. Design entrepreneurs may act as crucial gates that provide access to design discourse and to discussions that will shape the future product meanings by facilitating access for their manufacturing clients to the ongoing discussion of the dynamics and product languages in association with the values and meanings in society. They bring bits of knowledge, help their clients interpret the design discourse, and position themselves within the discourse. They may also exploit their network position to move design related languages across industries and social-cultural worlds, and by that they support the creation of radically new meanings that simultaneously have a socio-cultural foundation. In addition, Verganti (2003) encourages corporations to widen their discourse beyond that of design entrepreneurs since it should be regarded only as one of several channels to access knowledge of design related languages.

Perks et al. (2005) suggest that corporate managers need to carefully consider the role design should play in their new product development effort. Where industry conditions indicate a need for radical product differentiation through creativity, nurturing a more central role for the designer may bring benefits to the development process. They suggest that designers with broad business backgrounds are the most capable of adopting a holistic approach to product development. Simultaneously, managers should develop a portfolio of skills and forge stronger linkages with educational institutions in an attempt to influence the direction of traditional design courses. However, there needs to be a willingness on the part of the designers to undertake new roles. It is unlikely that all existing designers are able or willing to make this transition. Developing a new and broad set of skills requires considerable commitment and effort from the designer. For instance, Perks et al. (2005) note that older and experienced designers tend to prefer their traditional working tasks and skills base. Others do not possess the personal attributes and drive to undertake new activities.

According to Tennity (2003), much of the success of design entrepreneurs derives from the process perspective within the discipline of design. They can seamlessly blend their methodologies with the core process of their clients, which offers grounds for good relationships. At best, design entrepreneurs are able to insert a proven design process into the clients’ best practice and operations. The early phases of new product development are especially fertile grounds for design entrepreneurs. They can assist in articulating market opportunity and goal setting before extensive resources are committed. The preliminary phase tends to be urgent, uncertain, highly interdisciplinary, and nonlinear in nature. Similarly, Sanchez (2004) feels that design entrepreneurs can help business managers with regard to the product development process, and they should also consider how they could become more strategically involved in defining business concepts. In practice, they could conduct research, select market segments and define product offers, or even assist in defining various process capabilities that are needed to support high rates of product configuration and change. However, as stated by Tennity (2003), before that, design entrepreneurs must adapt to the client processes, learn it, exercise it, and also get entrenched in the clients’ culture.
2.5. SUMMARY

This second chapter has focused on valuable areas for design entrepreneurship researchers: design in the Finnish context, design novelty, new product development and collaboration. This review of relevant literature points out several underlying reasons and explanations for professional industrial designers becoming self-employed. It also sheds light on relevant issues associated with managing design and new product development processes. The increasing focus on collaboration and process thinking suggests that design entrepreneurs have the potential to manage their own and also contribute to others’ new product development processes. Simultaneously, collaboration in association with product development increases the complexity of the process due to the self-organizing behaviours and interdependent decision-making of the involved agents. Simple, linear process models may face challenges in describing the dynamism and comprehensiveness of the events taking place during such complex process. Instead, it might be more beneficial to regard new product development processes as increasingly recursive, or even as adaptive systems that involve elements of linear, recursive and even chaotic processes in their nature. Finally, this is precisely how recent industrial design and new product development literature depicts the stage for design entrepreneurship. I will return to these conceptualizations in chapter 7. Next, we need to learn more about the thinking that derives from entrepreneurship literature, since it will explain to us what entrepreneurship and entrepreneurial processes are all about.
3 EXPLAINING PROCESSES OF ENTREPRENEURSHIP

The previous chapter introduced the reader to the field of industrial design. The purpose of this chapter is to set forth the theoretical background by introducing the conceptual context of entrepreneurship and entrepreneurial processes more specifically. The literature review builds on previous research on the decision to become self-employed, opportunity identification and modes for organizing entrepreneurial endeavours. The selected insights are drawn from previous entrepreneurship research, which derive from a broad range of disciplines. In line with the research approach, the literature review will guide the research process and assist in stating some initial research questions. However, in accordance with the nature of the research approach, both questions and concepts are defined in a way that allows potential modifications and improvements along the forthcoming research process.

With regard to this chapter, it is important to recall that the extant entrepreneurship research often focuses on different units of analysis, combinations of elements and phases of entrepreneurial processes. Nevertheless, more recently, researchers have forced previous contributions into extensive theoretical process models. These all-embracing models capture the essential findings from previous research but their durability in empirical research is not yet properly examined. In order to increase our understanding of the interaction between activities and agents in processing emerging new venture ideas, it is necessary to become acquainted with a broad and extensive range of previous research. This chapter commences by justifying a process approach (3.1), and introducing the elements of entrepreneurial processes (3.2) as identified in previous research. Thereafter, the discussion continues regarding the foundations of entrepreneurship process theory (3.3) and the characteristics of process models (3.4). This will be followed by a concluding discussion that aims to identify some potential challenges, and finally, summarizing the theoretical discussion in this chapter (3.5).

Before beginning the multidisciplinary theoretical discussion, it is important to briefly position this study in the overall entrepreneurial research context. As presented in Figure 3 on the following page, this study builds on the conceptual elements and process theory that derive originally from the disciplines of economics, psychology, sociology and management. More precisely, this study draws primarily from the multidisciplinary field of entrepreneurship and business research. It is necessary to apply a multidisciplinary approach and to explain entrepreneurial processes from several theoretical standpoints in order to build on previous research contributions (e.g. Choi & Shepherd, 2004; McKelvie & Wiklund, 2004; Rasmussen, 2007). Moreover, this approach responds to recent research requests (e.g. Shane & Venkataraman, 2000; Davidsson, 2005). The selected theoretical research approach is a growing trend within recent entrepreneurship research. Prior efforts have made many attempts to bring research from selected disciplines together (e.g. Gartner, 1985; Shane, 2003), and, moreover, to set theories forth in specific conceptual frameworks (cf. Low & MacMillan, 1988; Venkataraman, 1997; Gartner, 2001; Low, 2001; Davidsson, 2003, 2004), or more concretely into empirically validated research models (e.g. Bhave, 1994; Sarasvathy, 2001).
This chapter begins by introducing the reader to the referred literature. The underlying idea is that a process approach may solve some of the definitional issues, which have been identified as challenging in previous entrepreneurship research (cf. Low & MacMillan, 1988; Shane & Venkataraman, 2000). As shown in Figure 3, the theoretical discussion occurs on three different levels. The research disciplines are shown on the top, and below them the six process elements are laid out. At the bottom of the figure, the two major schools of entrepreneurial process theories are introduced. In addition, an integration of these schools and representative conceptual process models are presented, along with a conceptual process model as an outcome of this review. Next, the relevance of the process elements and schools of entrepreneurship process theory are briefly discussed. In addition, the flow and logic between the different parts of the theoretical discussion will be further clarified.

Concerning the research disciplines, the majority of alternative ways to describe entrepreneurial processes originate from specific fields within the discipline of economics and from organizational theory, whereas subsequent conceptualizations are more multidisciplinary in their nature (e.g. psychology, sociology, and management). Most opportunity-related (i.e. venture idea) research derives from economics – in other words, the societal field of research. Classical economic theorists (e.g. Cantillon & Say) distinguish entrepreneurship in the 1600-1800s, but the subsequent equilibrium theory largely ignores the role of entrepreneurs in the economic context. As a result, Schumpeter (1883-1950) points out that entrepreneurs challenge the market equilibrium through innovation and proactive activity (creative destruction). In opposition, the modern Austrian School (e.g. Hayek, 1945; Kirzner, 1973, 1997) suggest that entrepreneurship is the consequence of innovations designed to exploit the venture ideas afforded by economic disequilibrium. However, both Schumpeter and Kirzner mainly ignore the crucial elements of risk and uncertainty (cf. Knight, 1921).
This study applies to some extent findings from previous *psychological research*, which strives to describe the underlying personality characteristics (traits) of individuals, and their motivations to become entrepreneurially involved (cf. Low & MacMillan, 1988). More recent research has shifted to study the behaviour of entrepreneurs in their specific context. Such studies attempt to explain what entrepreneurs do to accomplish something, e.g. new firm formation (Gartner, 1985).

In addition, this study applies findings from previous *sociological research*, which assume that entrepreneurship is associated with, and influenced by, subsets of the society (e.g. regions, business typologies or industries). The basic assumption is that entrepreneurship occurs only when there is a correspondence between the ideological constructs and the economic behaviour in a given social setting (e.g. Hannan & Freeman, 1977; Carroll, Delacroix, 1982; Aldrich, 1990). The research stream has generated several explanations for new venture formation (cf. Amit et al., 1993). However, it is recalled that this approach studies entrepreneurship and new venture formation mainly on the average level across populations (e.g. Amit et al., 2001). From a more individual entrepreneurial perspective, sociological studies show great interest in studying the essence of networks for entrepreneurship (cf. Johannisson, 2005).

Previous *management* studies on entrepreneurship follow two major streams: entrepreneurship and management (cf. Schumpeter, 1942), and entrepreneurship and organization (cf. Katz & Gartner, 1988). More recently, strategic management has witnessed an increasing connectivity with entrepreneurs (e.g. Zahra & Dess, 2001). Previous management researchers show interest in the organizing process (e.g. Gartner, 1985; Low & MacMillan, 1988) and the mode of exploitation (e.g. Schumpeter, 1942; Shane, 2002). Consequently, management and organization studies are essential for understanding the underlying strategies and actions of individuals or groups during the advancement of entrepreneurial processes (cf. Brush et al., 2001).

*Secondly*, concerning the *conceptual elements*, the theoretical discussion builds on the assumption that entrepreneurship is a process rather than an act (Bygrave & Hofer, 1991). Based on findings from previous literature reviews, entrepreneurial processes are assumed to contain certain elements (e.g. individuals, opportunities, modes of organizing and environments). These process elements will influence the flow and development as well as the interaction between activities and agents in processing the emergence of new venture ideas. The selected elements derive originally from the disciplines of management as well as from the societal, sociological, and psychological perspective of entrepreneurship. As shown in Figure 3, the elements of particular interest are *opportunities* (i.e. venture ideas), *individual characteristics and demographics*, *mode of organizing*, *decision to exploit*, and *environment*. Activities associated with the entrepreneurial process contain to varying degrees combinations of these elements, for instance, in relation to identification of opportunities, decision-making, resources acquisition and strategy generation.

*Thirdly*, concerning *process theory*, various researchers (e.g. Bruyat & Fayolle, 2002; Davidsson, 2003, 2004) suggest that there exist two major schools that strive to structure the scientific research community according to the entrepreneurial process approach. These two schools stand to some extent in opposition to one another (e.g. Bruyat & Julien, 2001; Bruyat & Fayolle, 2002; Davidsson, 2003, 2004). The first
school focuses on the emergence of a new economic activity, which is not necessarily in relation to the emergence of a new organization (entrepreneurial opportunities). It follows the views of Cantillon, Schumpeter and Kirzner, and regards entrepreneurs as innovators and, therefore, relatively exceptional persons who change the economy in some way or another (Bruyat & Fayolle, 2002). The second school builds on the idea that entrepreneurship is the creation of new organizations (entrepreneurial behaviour). This school derives from the work of Turgot and Say, and considers entrepreneurs to be persons who create and develop a new venture of any kind (Bruyat & Julien, 2001). Despite some conflicting elements, the assumption is that these two schools are adequate alone or in combination to explain process change and development (e.g. Van de Ven & Poole, 1995; Sarasvathy et al., 2003). In that sense, these schools can also be seen not as strictly opposing, but rather as compatible and complementary (e.g. Bruyat & Julien, 2001; Bruyat & Fayolle, 2002; Davidsson, 2003, 2004).

Finally, as a synthesis, it is apparent that traditional entrepreneurship literature focuses on underlying reasons for self-employment. Conducting research from this standpoint offers insights into the way design entrepreneurs become self-employed. On the other hand, literature that focuses on entrepreneurial behaviour and new venture creation provides an understanding of how design entrepreneurs create new ventures after they decide to become self-employed. Opportunity-based literature explains wherefrom the venture ideas derive and how they are developed and exploited within the overall business context.

3.1. JUSTIFICATION OF A PROCESS APPROACH

Traditionally, the characteristic of entrepreneurs is risk taking individuals who create successful business ventures. More recently, the research focus has shifted from the entrepreneur to studying entrepreneurship as an activity or process in various environmental settings (i.e. within or outside organizations of all sizes and types). Consequently, the interest in entrepreneurial processes is relatively recent. Nevertheless, during the past twenty years, a considerable number of authors have suggested focusing entrepreneurship research on the study of entrepreneurial processes (Gartner, 1985, 1988, 1993; Stevenson & Jarillo, 1990; Bygrave & Hofer, 1991; Van de Ven, 1992; Bruyat & Julien, 2001). Extant research on entrepreneurial processes is predominantly multi-disciplinary and rather fragmented. The literature generally focuses on two different dimensions: the first emphasises opportunity identification and information search, and the second resource acquisition and business strategies for new venture creation. It is evident that fundamental differences exist in the way that entrepreneurial processes are explained in previous research. Nonetheless, entrepreneurship researchers tend to accept a multi-disciplinary approach to describe the complexity and scope of entrepreneurial processes.

3.1.1. Defining entrepreneurial processes

The underlying assumption in this study is that entrepreneurial processes are in reality not in a static state but rather are characterized by dynamism and progression. There exist multifaceted ways to distinguish a process, depending on the setting and theme in
mind. Process definitions differ considerably, depending on the discipline, scope and level of inquiry. For instance, Van de Ven and Poole (1995) focus on development and state that a process is the progression (i.e. the order and sequence) of events in an organizational entity’s existence over time. Moreover, Van de Ven (1992) categorizes processes as follows: (1) as based on the logic that explains a causal relationship between independent (inputs) and dependent (outputs) variables in a variance theory; (2) as a category of concepts or variables that refer to the actions of individuals or organizations and (3) as a sequence of events that describes how things change over time. However, according to Pettigrew (1997), only the last category examines the process in action, which is important for explaining how development and change takes place over time. In general, process theories deal with a series of events as they occur rather than a set of relations among variables (Rasmussen, 2007). Consequently, both events and the patterns among them is the core of process related theory (Langley, 1999; Pentland, 1999).

At its extreme, predictability is valued as the driver for entrepreneurial activity. Hence, “causation processes take a particular effect as given and focus on selecting between means to create that effect” (Sarasvathy, 2001:245). Bygrave and Hofer (1991) describe several characteristics of the entrepreneurial process, for instance, that the initiation of entrepreneurship commences from ‘an act of human volition’. According to these authors, this acknowledges the importance of the individual entrepreneur as the essence of entrepreneurship. However, they state that the entrepreneur cannot ensure the success of the entrepreneurial venture alone. The entrepreneurial process is also dynamic and holistic. It is dynamic in the sense that new ventures evolve over time and holistic because a system of interacting variables influences the course of their evolution. Moreover, the authors state that the evolution of entrepreneurial ventures is sensitive to the initial context. Consequently, Bygrave and Hofer (1991:14) define an entrepreneurial process as involving “all the functions, activities, and actions associated with the perceiving of opportunities and the creation of organizations to pursue them.”

In a similar manner to management researchers, entrepreneurship researchers have borrowed a wide range of concepts, metaphors and theories from other disciplines to explain processes of change (cf. Van de Ven & Poole, 1995). This multidisciplinary approach has most likely benefited entrepreneurship-related research. However, the pluralism makes a broad comparison across specific fields more challenging. Nevertheless, Van de Ven and Poole (1995) argue that the interplay between different perspectives helps to provide a more comprehensive understanding of the studied phenomenon. Consequently, it is meaningful to determine boundaries between fields of inquiry, as for example, is attempted by many entrepreneurship researchers (e.g. Gartner, 1985; Shane & Venkataraman, 2000; Davidsson, 2004). Van de Ven and Poole (1995) argue that defining relationships between seemingly divergent theoretical views provides opportunities to develop a new theory. This in turn offers greater and broader explanatory power than the initial perspectives would do standing alone. Consequently, some integration is desirable, but a researcher should simultaneously keep in mind the distinctiveness of each particular theoretical viewpoint. Integration between views is possible, especially if inspecting different perspectives as providing alternative pictures of the same entrepreneurial process. In that sense, different views are mutually complementary, rather than mutually exclusive. However, before viewpoints are
applicable, it is necessary to identify the disciplines or fields of inquiry, from which these different views originate. As pointed out by Van de Ven and Poole (1995), such an approach preserves the authenticity of distinct theories and simultaneously advances theory building. In that sense, it is sensible to emphasize those circumstances when the interplay between theories may provide greater and broader explanatory power for entrepreneurial processes.

In their seminal article, Van de Ven and Poole (1995) set forth a typology of four distinct process theories which describe the complex processes of organizational change and innovation. According to the authors, the four process types represent typical explanations of change and development processes. First, the life-cycle theory builds on the assumption that change processes advance through certain steps or stages of development (immanent program). In that sense, organic growth explains the progression of such development processes. In the past, it was more common to use lifecycle models to describe the progression of entrepreneurship (e.g. Greiner, 1972, Churchill and Lewis, 1983). Commonly, the lifecycle theory foresees upcoming change events, which suggests that development follows an underlying and pre-programmed sequence of changes in a unitary, cumulative sequence. The surrounding environment and processes may influence the development, but in the long run, sequences and directions are primarily set in advance (Van de Ven & Poole 1995).

Secondly, the evolutionary theory builds on the assumption that change processes advance through a continuous cycle of variation, selection, and retention (competitive selection). This is similar to the Darwinian Theory, which unfolds via a continuous and gradual process of evolution. The creation and emergence of variation occurs through random chance. Selection takes place via natural competition, where the best forms suitable for a respective environment continue to evolve. Retention stabilizes the change process, through forces that oppose change and slow down the introduction of new features. Thirdly, the dialectic theory builds on the assumption that change processes advance through a conflict and balance of power between the opposing entities (conflict and synthesis). For instance, the entities may have opposing views, values and power, but a common goal that is possible to reach collectively. Accordingly, there is a need for a dialectical struggle (i.e. bargaining) to reach some form of synthesis and unison so that parties are able to agree (e.g. co-operation versus competition). Fourthly, the teleological theory builds on the assumption that change processes advance with the guidance of the purpose and final goals of the process. Therefore, it is possible to see the process as a repetitive sequence of goal formulation, implementation, evaluation, and modification of goals (purposeful enactment). These theories have been further developed in later works (e.g. Van de Ven & Poole, 2005) and they have been accepted by other academics (e.g. Cule & Robey, 2004; Rasmussen, 2006).

### 3.1.2. Activities and modes of change

According to Van de Ven and Poole (1995) and Aldrich (1999), process theories generally have distinct sequences and generative mechanisms. Hence, each of the four theories presented above rely on a different motor driving the change of the process. These mechanisms explain how and why various changes occur and why certain processes progress. Change in turn is an empirical observation of an event which differs
in form, quality, or state over time in a given entity. Similarly, development is a change process which encloses change events that unfold during the duration of an entity’s existence. For instance, such a process may start from the initiation or start of a new business or product venture, until reaching an initial outcome or the venture’s ultimate termination.

The unit of change may be identified as an individual (e.g. job, single product), a team or collection (e.g. workgroup, range of products), or on the organizational level (e.g. strategy or business venture), depending on the underlying process theory. In that sense, process theory is an explanation of how and why different units change and develop over time (Van de Ven & Poole, 1995). According to the seminal article by Low and MacMillan (1988), entrepreneurship researchers consider both micro and macro perspectives when studying the role of new enterprise in furthering economic progress. They claim that it is important to carry out entrepreneurship research on multiple levels of analysis and that the researcher regard the broad scope of analyses as complementing each other. According to an extensive literature review by Davidson and Wiklund (2001), entrepreneurship research is dominated by micro level analysis (i.e. focusing on the firm or the individual), with a nominal number of multiple level contributions. Nevertheless, they emphasize that the characteristics of the entrepreneurial phenomenon call for studies that include multiple levels of analysis. Hence, individuals carry out entrepreneurial initiatives; these initiatives occur in organizational contexts; and commonly result in the creation of new firms; or the rejuvenation and improved performance of established firms.

In addition, entrepreneurial initiatives often result in innovations, which then may change existing industries or create new ones. This in turn has profound effects on employment and economic growth on the societal level (Davidsson & Wiklund, 2001). Consequently, process-related research can and should focus on different levels of analysis (Low & MacMillan, 1988). The level and unit of analysis is important both for the design of empirical studies as well as for the appropriateness of the utilization of different theories and the suitability of different conceptualizations of entrepreneurship. Most theories have originally been developed to address issues on a specific level of analysis (i.e. individual or organization), which may indicate that they explain phenomena to a lesser extent on another level of analysis (i.e. opportunity, industry, region or nation etc.). The same challenge remains if the study focuses on new ventures as the unit of analysis. Nevertheless, Venkataraman (1997) and Davidsson and Wiklund (2001) suggest that focusing on new enterprises as an unit of analysis could be potentially productive and distinguish entrepreneurship from other fields of research. In this study, the primary unit of analysis is the entrepreneurial process, which is influenced by individual(s) behaviour and the surrounding environment.

In line with Van de Ven and Poole (1995), the underlying belief is that entrepreneurial process theories have distinct event sequences and generative mechanisms (i.e. cycles and motors). Similarly, Aldrich (1999) refers to engines that explain how and why changes happen and why a process progresses. Change is in that sense a specific type of event resulting from an empirical observation, which shows difference in form, quality, or state over time in a given entity. The assumption is that the motor is genuine in each theory and, thus, that the processes develop in their specific sequence. A change process refers to the progression of change events that unfold along the existence of a specific
unit (from initiation to its termination). Previous entrepreneurial process research has primarily studied either the emergence of a new economic activity, or the emergence of a new organization. A general goal for these studies has been to identify general patterns which describe the phases of development that the economic activity or new venture is likely to encounter. These process models generally highlight some specific aspect of the process, such as: the decision to start (Bhave, 1994), resource acquisition (Choi & Shepherd, 2004) or the entrepreneur’s personal learning process (Politis, 2006).

Regardless of the school of thought, the dominant issue has been the individual entrepreneur (e.g. characteristics, traits or behaviour etc.). More recently, process models that explain the emergence of new economic activities focus on the identification and development of entrepreneurial opportunities. For example, Ardichvili et al. (2003) emphasize that opportunity identification builds subjectively on the distinct processes of perception of a market need, identification of a fit between market needs and resources, and creation of a business concept to utilize the identified fit. On the other hand, process models that explain the emergence of new organizations have attempted to explain the creation of new ventures from an array of theoretical perspectives. However, according to Liao and Welsch (2003), few studies have explored the venture creation process empirically. For example, Gartner (1985; 1988) focuses conceptually on the role of individual behaviour, organization and the environment in creating new ventures.

The **mode of change** refers to the sequence of change events and whether the change motors are prescribed (i.e. deterministic or probabilistic laws), or are constructed during the progression. Some theories (e.g. equilibrium or population ecology) assume that change is prescribed, predictable and follows a linear process path. In that sense, theory building is limited to occurring within that particular theory. On the opposing side, there are some entrepreneurial process theories (e.g. effectuation) which assume rather the opposite: it is possible to construct change, since the events and the future are not only uncertain but also unknowable (Sarasvathy, 2001). Therefore, theory building is bound to seek new paths. Despite the growing interest in entrepreneurial process models, it is important to consider some limitations. As explained earlier, until today, most existing studies have assumed a linear, unitary process which begins, for instance, with the recognition of a business opportunity and culminates with the first sales and first recruitments (Liao & Welsh, 2003). This kind of a linear model implies that an additive combination of events will lead to the creation of a new firm (e.g. Reynolds & Miller, 1992; Carter et al., 1996). However, as pointed out by Davidsson (2004), we lack empirical evidence that confirms or contradicts the linear model.

### 3.2. ELEMENTS OF ENTREPRENEURIAL PROCESSES

This section introduces the reader to relevant literature underlying entrepreneurial process research. The literature review on the elements of entrepreneurial processes builds on the assumption that entrepreneurship is a process rather than an act (Bygrave & Hofer, 1991). The aim of the review is not to capture the richness of all the different research traditions focusing on entrepreneurship since such an all-embracing review would not be possible, or even essential for the research purposes. Instead, the aim is to form an integrated view of the entrepreneurial process phenomenon, and moreover, to
obtain a view of the current state of knowledge concerning the elements of entrepreneurial processes. Based on findings from previous literature reviews, entrepreneurial processes are assumed to contain certain elements which influence the flow and development in addition to the interaction between activities and agents in processing emerging venture ideas.

More precisely, the review builds on the guidelines of previous entrepreneurial-process-related reviews (e.g. Van der Veen & Wakkee, 2002; Shane, 2003). The review commences by introducing the most relevant research on the psychological characteristics of the entrepreneur (3.2.1). Despite the recent criticism directed towards traits-related research, traits are arguably important ingredients of entrepreneurial processes since the individual attributes influences progression and outcomes. Next, research on the entrepreneurial demographics is presented (3.2.2). As with the traits approach, demographics are important for understanding entrepreneurial processes, but previous researchers criticise them, too, since they explain more who the entrepreneur is rather than what such individuals actually do. Thereafter, the review presents research on industrial and institutional environments, which examines the environment where entrepreneurial processes emerge, develop and come to an end (3.2.3). The majority of entrepreneurship researchers today view entrepreneurship as embedded in the environment and not as an isolated entity. However, some of the environmental research is criticised for studying entrepreneurship as an average phenomenon and thus largely ignoring the influence of individual creativity and action.

Moreover, the research on opportunities and identification is currently in a conceptual state, since major empirical contributions are still to a great extent missing (3.2.4). The argument is that research on opportunity identification offers an important basis for understanding why entrepreneurial processes commence. Similarly, research on opportunity costs is mainly conceptual (3.2.5). Further, it is argued that the decision to exploit signifies a commitment to pursue a venture idea. Following this, the review continues by discussing the modes of organizing and initial outcomes, claiming that associated research has focused mainly on founding entrepreneurs and their new firm creation (3.2.6). Research that focuses on other modes of exploitation is still to some extent lacking. In addition, other outcomes than monetary, on different levels of analysis, are emphasized by previous researchers. The literature review indicates that there exists an array of research which describes the characteristics of the entrepreneur. Recently, the research focus has shifted from trying to explain entrepreneurial characteristics with psychological and socio-cultural traits, to explaining behaviour through differences associated with, for instance, knowledge, information and cognition. The underlying assumption is that the current research focus on behaviour offers a more robust explanation of entrepreneurship, by linking the influence of entrepreneurs with the process of emerging new ventures.

Consequently, in line with previous research attempts (e.g. Shane 2003), this literature review takes a multidisciplinary perspective and includes relevant research from management as well as from the societal, socio-cultural, and psychological perspective of entrepreneurship. This in turn implies that the review includes a broader assortment of literature than, for instance, the review presented by Busenitz et al. (2003), which focuses primarily on management literature. Nevertheless, the review follows a similar structure to theirs, and captures common elements and intersections found in
entrepreneurial process related research (cf. Busenitz et al., 2003). As shown in Figure 4, the four major elements of interest are individuals and teams, opportunities, mode of organizing and environments. Moreover, the intersections between these elements provide fine-grained areas of particular interest for process-related research: e.g. identification of opportunities, decision-making, resources acquisition and strategy generation.

![Diagram showing the four major elements and their intersections](image)


Figure 4 Conceptual domain of entrepreneurship as a field

The literature review follows the following logic: It was begun by tracing back an extensive array of references which were found in Shane (2003). Eventually, the search was completed when the same publications (articles, books or conference proceedings) were found repeatedly. Several other methods were also used to bring together previous literature from the field of entrepreneurial process research, including electronic research databases to collect additional literature. In addition, the results were compared with previous literature reviews (e.g. Busenitz et al., 2003; Van der Veen & Wakkee, 2002, Sciascia & De Vita, 2004, Johannisson, 2005) to ensure that important contributions were not overlooked. Although it was not an end in itself, approximately 600 references (on the abstract or publication level), somehow related to the conceptual domain of entrepreneurial process research, were identified, located and pre-examined. From these references, the focus was narrowed to literature that was found particularly relevant for studying the conceptualized entrepreneurial process more specifically.

As a result, the literature review provides an overview of recent empirical research on the entrepreneurial process. In total, the literature review covers around 100 published articles, books, book sections and conference proceedings. The review suggests that a large amount of literature focuses on the elements of entrepreneurial processes, but until recently few studies have focused on the aggregate process level. The review also points out that process-related research has become more common (e.g. Choi & Shepherd, 2004; McKelvie & Wiklund, 2004; Ravasi & Turati, 2005). Originally, the review relied on a broad range of variables (10 overall), but during the process similar elements were grouped together. Comparison with previous research suggests that relatively few
studies have dealt simultaneously with a broad range of variables. Finally, the references were organized into larger collections of conceptual themes. Consequently, the references have the same labels as the proceeding sections: *psychological characteristics; entrepreneurial demographics; industrial and institutional environments; opportunities and identification; opportunity cost and the decision to exploit; and mode of organizing and initial outcomes.* More specifically, these categories represent theoretical constructs or theoretical variables (abstractions) which have different kinds of empirical expressions (cf. Wiklund, 1998). This categorization enables classification and makes it more meaningful to compare previous studies and empirical findings with each other. In a manner similar to Wiklund (1998), the categorization may not be identical to the variables presented by individual researchers in previous research, but they are my interpretations of their underlying theoretical meaning. Next, a compressed presentation of the literature review is presented.

### 3.2.1. Psychological characteristics of the entrepreneur

Previous research indicates that the entrepreneur plays a central role in the entrepreneurial process. Therefore, it is not surprising that there are a large number of publications concerning the personality of the entrepreneur. In reviewing this area of literature, many articles were found on the characteristics of entrepreneurs and the role of personality in entrepreneurial activities in general. Moreover, many references were found related to how psychological factors influence the behaviour of entrepreneurs related to the creation of new ventures. For example, Dolton and Makepeace (1990) found in their empirical investigation that individuals become self-employed based on both personal and social reasons. Particularly, the traditional explanation for entrepreneurial behaviour builds on the assumption of *psychological traits* or characteristics (e.g. Knight, 1921; Sexton & Bowman, 1984; Evans & Leighton, 1989; Busenitz & Barney, 1997; Amit et al., 2001). For example, Amit et al. (2001) and Busenitz and Barney (1997) focus primarily on personality and motivation, core self-evaluation and cognitive properties when explaining why some individuals become self-employed instead of others. These are now explained in greater detail.

It is feasible to divide aspects of *personality and motivation* into *extraversion* (Barrick & Mount, 1991; Babb & Babb, 1992). The term refers to entrepreneurs being outgoing towards other people and towards ‘things’ (e.g. new ideas and products). They need stimulation, express emotions and gain their motivation from interaction with other people. For example, Wooten et al., (1999) found that individuals who start new business ventures were open to networking and ready to share their thoughts with other likeminded individuals. On the other hand, *agreeableness* (Barrick & Mount, 1991, Wooten et al., 1999) implies that entrepreneurs have a tendency to be pleasant and accommodating in social situations, perhaps to enhance their own entrepreneurial cause. One of the most central personality characteristics is the *need for achievement* among entrepreneurial individuals, originally introduced by McClelland (1961). For example, Hornaday and Aboud (1973) operationalize the concept and introduce means for measuring it among entrepreneurs. Similarly, Miner (2000) tests a psychological typology of entrepreneurs among business founders. The four-way psychological typology builds on the following personalities: personal achievers, real managers, expert idea generators and emphatic super salespeople.
The findings indicate that nascent entrepreneurs characterized by one or more of the typologies are more likely business founders than others. Personal reasons for new venture creation could be the need for independence or freedom, supported by many studies (e.g. Hornaday & Aboud, 1973; Burke et al., 2000; Douglas, 1999; Wooten et al., 1999). For example, Taylor (1996) found that independence and freedom are clearly attractive for individuals who plan to become self-employed. Moreover, Johnson (1990) argues in his literature review that there exists a considerable variability in how previous studies operationalize the achievement motivation. Nevertheless, based on the review there seems to exist a positive relationship between achievement and entrepreneurial behaviour. However, Hull et al. (1980) criticise the need for achievement and suggest that it is not the only important variable for predicting the likelihood of starting a business. On the other hand, regarding business growth, Lee and Tsang (2001) found that the need for achievement among other personality features had a positive impact on developing businesses.

Moreover, research on individuals’ core self-evaluation refers to locus of control (e.g. Evans & Leighton, 1989; Robinson et al., 1991; Shane, 1996). The term associates with individuals who attribute events to their own control. For example, Evans and Leighton (1989) found among other things that men who believe that their performance depends largely on their own actions have a greater propensity to start businesses. Self-efficacy (e.g. Knight, 1921, Robinson et al., 1991; Chen et al., 1998; Ripsas, 1998) refers to a person’s belief in their own capability to successfully perform as an entrepreneur. In line with this, several empirical studies support the idea that self-valuing individuals are more likely to become self-employed (e.g. Chen et al., 1998; Vesalainen & Pihkala, 1999; Zietsma, 1999). On the other hand, Kalleberg and Leight (1991) examine what determines small business survival and success between genders. Their results indicate small differences related to gender, but found instead that self-confident individuals seem less likely to fail.

Research on the cognitive characteristics refers to overconfidence (Corman et al., 1988; Busenitz & Barney, 1997; Arabsheibani et al., 2000; Bernardo & Welsh, 2001; Yu, 2001). For example, Busenitz and Barney (1997) compare entrepreneurs and managers assessments on a set of real-world questions. The results indicate that the accuracy was alike, but the level of confidence among entrepreneurs was dramatically higher. Supporting this finding, Bernardo and Welsh (2001) argue that overconfidence can persist because such behaviour broadcasts valuable information to the surrounding participants. Important information would be lost, if an entrepreneur were to act strictly rationally and ‘follow the herd’. There are several other empirical studies which support the basic idea that overconfidence is a typical characteristic of entrepreneurs. Another trait is representation (Busenitz & Lau, 1996; Busenitz & Barney, 1997), which implies that entrepreneurs judge the probability of an event by finding a “comparable” event, and then assume that the probabilities will be similar. For example, Busenitz and Barney (1997) found in their study strong support for both overconfidence and representation among entrepreneurs when comparing their strategic decision-making with those of corporate managers.

Finally, intuition (Allinson et al., 2000; Busenitz & Barney, 1997; Baron, 2000) implies that entrepreneurs have a feeling or a vision of the potential of their enterprise (Bird, 1988). For example, empirical results presented by Allinson et al. (2000), suggest that
entrepreneurs at least in high growth firms are more intuitive in comparison with members of the general population and middle and junior managers. In addition, research on entrepreneurial intentions aims at understanding entrepreneurs cognitive processes (e.g. Bird, 1988). It is possible to divide cognitive processes into intelligence, perceptive ability, creativity, and risk-taking capacity. First, intelligence refers to individuals’ intellectual capacity (e.g. Busenitz, 1996, Van Praag & Cramer, 2001). For example, Van Praag and Cramer (2001) found that IQ has a positive influence on entrepreneurial talent, along with the educational level. The type of education influences entrepreneurial talent, perhaps via the analytical skills obtained through a science-orientated education. Importantly for this study, an arts-orientated type of education does not enhance entrepreneurial talent. Accordingly, the most probable explanation for this is that people who choose arts-oriented education are less interested in an entrepreneurial career in the first place (Van Praag & Cramer, 2001). Secondly, perceptive ability refers to knowledge structures that individuals have about the capabilities, skills, knowledge, norms, and attitudes required to create a venture (Mitchell et al., 2004). Thirdly, regarding creativity, much research reports that creative individuals tend to become self-employed (Hull et al., 1980; Robinson et al., 1991; Koh, 1996; Hyrsky & Kangasharju, 1998; Vesalainen & Pihkala, 1999). For example, in Ireland Walsh and Anderson (1995) found a clear difference in the orientation toward innovation, between those owner-managers who were founders of their firms and those who were non-founders. Irish firm founders were significantly more innovative in their decision-making than non-founders were, but not as innovative as firm founders in the United States (Walsh & Anderson, 1995).

3.2.2. Entrepreneurial demographics

The common assumption is that individuals become self-employed due to unemployment, independence or earnings (Taylor, 1996). Another more sophisticated explanation for entrepreneurial behaviour is access to knowledge and information, cognitive differences and behavioural differences (Venkataraman, 1997). Previous research suggests that individuals with widespread business and industrial experience tend to have greater capacity to generate business opportunities. For example, Cooper, Folta and Woo (1995) and Shane (2000) found that prior knowledge and experience influences the identification and willingness to exploit entrepreneurial opportunities. Research on demographic characteristics (e.g. Evans & Leighton, 1989) have hitherto comprised studies primarily on how the educational level, age, career experience, opportunity cost and social factors effects entrepreneurs’ decision to exploit business opportunities. For example, previous research suggests that education and experience increases the ability to collect the necessary information and knowledge, which in turn plays a strong role in providing the willingness and the competence to identify and exploit business opportunities (e.g. Von Hippel, 1986, Aldrich, 1999).

Research on the educational level explains how education influences individuals’ likelihood to exploit business opportunities (e.g. Clouse, 1990, Evans & Leighton, 1989). For example, Rees and Shah (1986) found that education is a significant determinant of self-employment in the UK. It is somewhat contradictory that their results indicate that education positively influences the earnings level and yet, nevertheless, raises the probability of self-employment. On the other hand, Sanders and
Nee (1996) studied the value of family social capital and human capital among the immigrant self-employed. Their study shows that foreign-earned human capital is not usually highly valued in the new home country. Despite that, both social and human capital plays a central role in self-employment. Moreover, several other studies highlight the role of education as a characteristic of entrepreneurs (e.g. Delmar & Davidsson, 2000) or as a determinant of self-employment among graduates (e.g. Dolton & Makepeace, 1990). In line with a commonly-held assumption, Burke et al. (2000) found in their study that education reduced the probability of self-employment, but also improved company-level performance and job creation prospects. Somewhat controversially, Schiller and Crewson (1997) found that human capital (experience and education) among younger individuals correlates negatively with female entrepreneurship, but positively with male entrepreneurship. On the other hand, Mata (1996) studied the role of human capital of entrepreneurs in relation to the size of their new firms. The results indicate that older and educated entrepreneurs tend to create larger firms. Finally, in a study concerning the likelihood of self-employment among the Finnish unemployed, Ritsilä and Tervo (2002) found that the level of educational attainment seems to correlate positively with the likelihood of new business formation.

Access to information derives often from life and career experience (Aldrich, 1999) as well as from the varied nature of individuals’ life experience (Evans & Leighton, 1989, Blanchflower & Oswald, 1998; Delmar & Davidsson, 2000). The entrepreneur, the environment and the interaction between these two influence the identification and exploitation of opportunities (Shane, 2000). Previous researchers point to access to information as a necessary pre-step for the identification of and the decision to exploit opportunities, which derives from life experiences, social networks and search processes (Shane, 2003). For example, Shepherd et al., (2000) refers to the novelty of management, which concerns the entrepreneurial team’s possible lack of business skills, industry specific information, and start-up experience. More specifically, experience can relate to a specific career, business practice, occupation, industry, or new venture formation (Shane, 2003). Consequently, career experience is valued as important for gathering information and skills that are crucial for identifying opportunities and making the decision to exploit (e.g. Aldrich, 1999). For example, in his earlier work, Shane (2000) found that people are more likely to exploit opportunities when they have relevant knowledge and experience from previous employment.

General business experience is equally valuable, especially for understanding basic business skills which positively influence the likelihood of becoming self-employed (e.g. Evans & Leighton, 1989; Schiller & Crewson, 1997; Delmar & Davidsson, 2000). For example, Evans (1989), in line with previous research, found that the level of entrepreneurship was lower among immigrants than among men with labour force experience from the given nation. Taylor (1999) found that previous business experience is important for the survival of their endeavour when self-employed. The results show that each previous month in wage work, prior to the start of the business venture reduces the exit rate. In contrast, previous unemployment experience increases the exit rate considerably. Many other researchers (e.g. Lee & Tsang, 2001; Gimeno et al., 1997) support these findings. Industry experience is also important, since it reduces the uncertainty and therefore influences the decision to exploit (e.g. Knight, 1921; Praag & Pohem, 1995; Aldrich, 1999). For example, Praag and Pohem (1995) found that not
only experience itself, but also the frequency of job changes had a positive effect on the willingness to become self-employed. Moreover, results from Lee and Tsang (2001) indicate that among a broad range of explored factors, an entrepreneur’s industrial and managerial experience was the dominating factor that affected venture growth.

The next factor, previous experience of forming new ventures, crucially influences the decision to exploit (e.g. Carroll & Mosakowski, 1987, Taylor, 1999) and also considerably improves the survival rates once a new venture is established (Taylor, 1999). According to Cooper et al. (1995), experience relevant to venture formation might be thought of as having two dimensions: experience as an entrepreneur – having previously owned and managed a business (knowing what needs to be done in forming a venture), and experience of the products or services to be offered and markets to be served (knowing what kind of business leads to success). For example, amongst the personal reasons for new venture creation is previous self-employment experience (Carroll & Mosakowski, 1987). In addition, Praag and Pohem (1995) found in their study that previous self-employment experience had a significant role in finding opportunities, but their study did not support the idea that self-employment experience increased willingness to become self-employed again. Results from William’s (1999) study indicate that individuals with previous self-employment experience are considerably less likely to become franchisees. Consequently, Delmar and Davidson (2000) found in their extensive study that a considerably larger share of adults that live in the United States had some sort of start-up or small business experience, when compared to adults in Sweden.

Vicarious learning derives from observing how others accomplish tasks in their entrepreneurial process (e.g. Carroll & Mosakowski, 1987; Caputo & Dolinsky, 1998). For example, Taylor (1996) found that parental status often influences the willingness to become self-employed. Finally, age generally increases the likelihood for becoming self-employed, since people gather much of the necessary information and competence during their lifetime (e.g. Borjas & Bronars, 1989). Age also brings credibility and social contacts, which makes it easier for individuals to convince others (e.g. Taylor, 1996, 1999). However, age also reduces the willingness to carry risk and increases the individuals experienced cost of giving up alternatives. In addition, individuals receptiveness for new information decreases. For example, empirical results from the UK suggest a non-linear relation between the likelihood for self-employment and age, which rises at first and declines towards the end of the life (Rees & Shah, 1986). Moreover, Praag and Pohem (1995) found that individuals of an age close to 24 have the worst opportunities to start a business, but are the most willing to do so across all ages. Their sample suggests that opportunities improve with age, but the willingness to exploit decreases.

Social factors significantly influence willingness to become self-employed and the ability to identify business opportunities. Surprisingly few studies have studied social factors in more detail. Consequently, only a few studies have focused on the social status of entrepreneurs (e.g. Stuart et al., 1999; Dolton & Makepeace, 1990; Evans, 1989) and on the social ties (Aldrich, 1999; Hansen & Allen, 1992). Moreover, research, for example, on the social position is still essentially missing. Shapero and Sokol (1982) suggest that identification of opportunities is influenced by controllable personal factors (e.g. unemployment and emigration), but also by uncontrollable social
and cultural factors (e.g. ethnicity, gender and family). According to Le (1999), among other elements, family background is a significant determinant of self-employment choice. Peculiarly, results from Wong’s (1986) study suggest that educated spouses significantly increase the entrepreneurial productivity of their other half. Some other researchers suggest that individuals who are married or have a working partner tend to be more willing to exploit venture ideas (Borjas, 1986; Robinson & Sexton, 1994; Schiller & Crewson, 1997; Blanchflower & Oswald, 1998; Johansson, 2000; Taylor, 2001). The positive influence of married/working partner derives from the financial security and supportive role of the spouse. On the other hand, results reported by Dolton and Makepeace (1990) show no significance for family related coefficients (e.g. marital status, number of children and age of eldest child). Stuart et al. (1999) present another way to observe social factors, by examining how young companies benefit from third party endorsements in order to raise their trustworthiness. In addition, Hansen (1995) studied the effects of entrepreneurs’ network behaviour on venture performance and found a positive relationship between networking and performance.

3.2.3. Industrial and institutional environments

The environment contains both the industry and the institutional environment, both of which influence new firm formation and survival. Previous research suggests that the nature of the industry and the regional distribution of industries influence local entrepreneurial activity (Mata & Portugal, 1994; Taylor, 1996, 1999, 2001; Gimeno et al., 1997; Georgellis & Wall, 1999). For example, Taylor (1996) shows that individuals within certain specific industries are more likely to become self-employed. Mata (1996) suggests that the industry characteristics matter for the scale of entry: larger firms operate and prosper in larger industries. Certain industries are supportive of venture growth and survival, by bringing a feasible level of income (e.g. Kalleberg & Leicht, 1991; Taylor, 1996, 2001; Gimeno et al., 1997).

Moreover, the distribution of industries in a given region influences local entrepreneurial activity (Georgellis & Wall, 1999). Similarly, it seems that the nature of an industry positively affects new firm survival (Dunne et al., 1988; Audretsch, 1991). For example, results from Portuguese manufacturing industries suggest that the industry growth rate has a negative, and entry level a positive, effect on the survival of new firms (Mata & Portugal, 1994). On the other hand, Taylor (1999) reports that 40% of the firms founded nearly ten years earlier had not survived. The results indicate that bankruptcy is not the underlying reason, but more commonly a movement (back) to employment. The fittest in terms of survival are those with no previous unemployment record, some previous work experience and some initial capital of their own. Gimeno et al. (1997) argue that economic performance is not the only indicator for firm survival, and that individual level factors also determine failure, which in turn explains why some firms survive, while others fail with equal economic performance in given industries. Consequently, the underlying knowledge conditions, the demand conditions, industry lifecycles, and profit-capturing conditions all influence the level of venture idea exploitation in an industry (Shane, 2003).

Consequently, the knowledge conditions influence the intensity of research and development (R&D) activities in a given industry (Cohen & Levin, 1989). For example,
Dean et al. (1998) suggest that small firms possess specific resources which may help them to overcome barriers and allow exploitation of certain opportunities more readily than their larger competitors. In addition, the strength and source of opportunities explains cross-industry variation in R&D intensity and technological advance (Klevorick et al., 1995). As a result, innovation intensity varies: in some industries, mainly companies carry out innovation, whilst in others it occurs mainly within universities and government laboratories (Klevorick et al., 1995). Accordingly, new firm formation is more common in innovative industries with university and government involvement (Schumpeter, 1934, 1942; Shane, 2001b). Moreover, the size of necessary operations required to innovate varies between industries. For example, small-firm entry could face barriers due to industry-specific characteristics and requirements related to innovative activity (e.g. Acs & Audretsch, 1989b). Similarly, the uncertainty of the industry will influence new firm formation and failure rates. As indicated by previous researchers, some industries are more stable than others (e.g. Acs & Audretsch, 1989a; Audretsch, 2001). Demand conditions influence the entry and survival of new firms (Schumpeter, 1934; Kirzner, 1997; Drucker, 1998; Geroski, 2001). For example, a specific industry with an attractive market size will attract new entrants and ensure higher survival rates (e.g. Baum & Oliver, 1991; Dean et al., 1998; Wade et al., 1998). However, Delacroix et al. (1989) argue against the commonly assumed curvilinear relationship between the density of firms and the failure rate in a given industry. Similarly, Pennings (1982) found no relevant relation between sizes of the local industrial base in comparison to the creation of new firms.

Despite these findings, researchers commonly support the idea that growing markets attract new firms and support firm survival (e.g. Acs & Audretsch, 1989a, 1989b; Dolton & Makepeace, 1990; Baum & Mezias, 1992). In line with this, Mata and Portugal (1994) found that new firm failure relates negatively to the industry growth rate, but positively with the degree of entry in the industry. Regarding market segmentation, Baum and Singh (1994) argue that the resource requirements and productive capacities characterize different organizational niches. However, individual organizations might be located in a multidimensional resource space and operate their business in different competitive landscapes. Such possibilities of divergence influence the likelihood of new firm entry and the dynamics of strategic and empirical processes (Baum & Singh, 1994). Supporting this, Mezias and Mezias (2000) suggest that a high concentration among larger organizations leaves open the possibility that smaller firms will arise to occupy specialized niches.

Furthermore, industry lifecycles influence new firm formation and the survival rates of a given industry (Geroski, 1995). In line with this, results from Barnett (1997) indicate that as concentration of industry increases, so does the competitive weaknesses of surviving firms. This in turn will set the stage for resurgence of industrial renewal. Nevertheless, firm-level adaptation to industrial transformation may result in the survival of weak competitors, too. According to Tushman and Anderson (1986), there is a dominant design for firm formation within a given industry. Their study indicates that those firms that initiate major technological changes grow faster than other firms do. Klepper and Graddy (1990) develop a model that explain how new industries evolve and allows one to determine structures for mature markets. Consequently, they assume that firm formation follows a certain path, due to industry specific reasons. Moreover, in
their empirical study, Horvath et al. (2001) explain some underlying reasons for the reduction of firms within many industries, in a short interval of time. Moreover, many empirical inquiries have emphasised the density of existing firms when describing reasons for new firm formation or the survival of existing ones in a given industry (e.g. Carroll & Delacroix, 1982; Aldrich, 1990; Baum & Mezias, 1992; Aldrich & Martinez, 2001). Appropriability conditions indicate that firms must be able to receive appropriate returns from making investments, for instance, in research and development (Levin et al., 1987; Cohen & Levin, 1989). In order to secure investments, the strength of patents and other intellectual property rights are important (e.g. Levin et al., 1987; Shane, 2001b). The industry structure and potential entry barriers have a strong influence on small-firm entry behaviour (Acs & Audretsch, 1989b). For example, Reid (1999) found that small firm survival was dependent on the rapid repayment of debt as well as entrepreneurs’ willingness to sacrifice short-term profit for growth. On the other hand, Fonseca et al. (2001) suggest that high start-up costs discourage entrepreneurship and increase the majority of the population who become workers. Consequently, the creation of new firms is more likely when industries have low entry barriers (Dean et al., 1993).

The institutional environment will influence individuals’ decision to exploit venture ideas. The institution contains the economic, political and socio-cultural environment, which all influence the overall productivity and entrepreneurial activity in the given environment (e.g. Baumol, 1990; Aldrich & Fiol, 1994; Lu, 1994; Fadahunsi & Rosa, 2002). The economic environment influences the willingness of people to exploit. For example, capital availability is important for new venture formation (Pennings, 1982). Exploitation is more likely when entrepreneurs have greater financial capital (Evans & Leighton, 1989) or when the costs of capital are low (Shane, 1996). Similarly, Dobbin and Dowd (1997) found that public capitalization increases the rate at which new firms are founded by increasing available resources. In addition, a favourable tax level has a strong impact on new firm formation (e.g. Blau, 1987; Gentry & Hubbard, 2000). For example, Gentry and Hubbard (2000) studied the impact of (progressive) tax rates on the decision to become an entrepreneur. They found the most significant increase in entrepreneurial entry was when tax rates were less progressive.

Finally, wealth projection is an important determinant for new firm formation. For example, Campbell (1992) suggests that the decision to become an entrepreneur is an alternative to wage labour. Consequently, the entrepreneur evaluates whether there are positive expected net benefits (i.e. profits) from entrepreneurship in comparison with the income from wage work. Other researchers report similar findings (e.g. Blau, 1987; Jackson & Rodney, 1994). The political environment also enhances new firm formation. For example, Gnyawali and Fogel (1994) suggest that governments can influence market conditions and make them function more efficiently by removing conditions that create market imperfections and administrative inflexibility. Finally, previous research indicates that large numbers of people in the industrial countries say they would prefer to be self-employed (e.g. Blanchflower et al., 2001). According to work by Jackson and Rodney (1994), the attitudes towards entrepreneurship in specific regions could explain why the level of latent entrepreneurship remains high.
3.2.4. Opportunities and identification

This section presents a summarized overview of opportunity-related research. For a more thorough discussion on relevant literature, see section 3.3.1. It is possible to define opportunities in many different ways. For example, Casson (1982) emphasizes the possibility of new profit-potential by defining opportunities as those situations in which new goods, services, raw materials and organising methods can be introduced and sold at greater price than their cost of production. For Stevenson and Jarillo (1990:23) an opportunity is a desirable and feasible future situation. Opportunities are relativistic concepts which vary among individuals and for individuals over time, because they have different desires and they perceive themselves as possessing different capabilities. Desires vary with current position and future expectations, and capabilities depend on skills, training, and the competitive environment. Nevertheless, the relation between perceptions and the reality can be rather loose (Stevenson & Jarillo, 1990).

Previous literature debates the conceptual definition of an opportunity, and whether only the introduction of new means-end frameworks (e.g. Kirzner, 1997; Shane & Venkataraman, 2000; Shane, 2003) constitutes venture ideas or whether imitation also counts (e.g. Davidsson, 2003, 2004). For example, Kirzner (1997) argues that entrepreneurial opportunities differ from the larger set of all opportunities. They require the discovery (i.e. identification) of new means-end relationships. Other opportunities may also involve optimisation within existing means-end relationships (Kirzner, 1997). According to Sarasvathy and Venkataraman (2001), an entrepreneurial opportunity consists of the following aspects: (1) new idea/s or invention/s that may or may not lead to the achievement of one or more economic ends that become possible through those ideas or inventions, (2) beliefs about issues favourable to the achievement of those economic ends, and (3) actions that implement those ends through specific (imagined) new economic artefacts (the artefacts may be goods such as products and services, and/or entities such as firms and markets, and/or institutions such as standards and norms).

Some individuals have the ability to identify venture ideas that others do not see, commonly regardless of the amount of available information. Previous studies often describe underlying reasons for this ability based on prior knowledge (e.g. Cohen & Levinthal, 1990; Shane, 2000, Yu, 2001). Accordingly, there are evident reasons for why certain individuals tend to identify venture ideas that others do not identify (e.g. Hayek, 1945; Kirzner, 1973). It is possible to divide prior knowledge into two sub-categories, namely the knowledge of markets (e.g. Evans, 1989; Shane, 2000) and knowledge of market conditions (Cooper & Dunkelberg, 1987; Young & Francis, 1991; Shane, 2000; Klepper, 2001). For example, empirical results presented by Shane (2000), suggests that the following factors will influence the identification of opportunities: (1) prior knowledge, (2) social networks / information transfer and (3) individual cognitive characteristics. Thus, individual behaviour and attributes (other than psychology) influence identification of emerging venture ideas. In this sense, prior knowledge of the individual drives identification (i.e. discovery) (Shane, 2000), which is in line with the Austrian stream of research (e.g. Kirzner, 1973; Venkataraman, 1997). Access to information may also be dependant upon applied search processes (Jack & Anderson, 2002) and collection of information through deliberate search (Shane, 2003:48).
However, there is an ongoing debate in process-related research related to the emergence of venture ideas. Hence, previous researchers seem to find it challenging to agree whether entrepreneurs recognize venture ideas (Schumpeter, 1934); whether they exist in the environment and alert individuals discover them (Kirzner, 1973, 1997); or whether resourceful individuals create them during the process (Sarasvathy, 2001; Johannisson, 2005). In this study, identification is applied as an overarching term to describe discovery, recognition or sources for creation of opportunities. In line with this, Sarasvathy et al. (2003) suggest that each of these may be correct, depending on the specific venture idea and process at hand. Hence, an alert individual can immediately generate and exploit certain kind of ideas, some ideas require more exploration before being identified, and some ideas emerge suddenly without purposeful search activities. As explained earlier, ideas commonly derive from, for instance, previous employment experience, but can also emerge from hobbies, social encounters or ordinary observation. On the other hand, entrepreneurs may also use their social networks to obtain ideas and gather information to create opportunities (e.g. Johannisson, 2005). For example, Kirzner’s (1997) theoretical assumptions are supported by a few empirical studies (e.g. Busenitz, 1996; Gaglio & Katz, 2001). The results suggest that alert individuals are possibly more sensitive than the majority of individuals to identify opportunities.

Consequently, previous researchers have worked with different terminology, but the process of opportunity identification progresses in a similar fashion: from an initial idea, which is refined, then elaborated or formed into a viable business opportunity. For example, Bhave (1994) labels the opportunity identification process as the opportunity stage in his venture creation process model. Therefore, it makes sense that March (1991) states that there is an important difference between exploration and exploitation of new possibilities. Exploration includes such terms as search, variation, risk-taking, experimentation, play, flexibility, identification, and innovation, whereas exploitation deals with refinement, choice, production, efficiency, selection, implementation and execution. In addition, March (1991) suggests that exploration that excludes exploitation normally bears the cost related to exploration, without gaining any of the potential benefits. Shane and Venkataraman (2000) have also suggested that the nature of the venture idea will affect entrepreneurs’ willingness to exploit it.

Moreover, the degree of innovativeness influences the likelihood of initiating exploitation, since path-breaking venture ideas entail substantial uncertainty because it is impossible to know the chances of success (Praag & Pohem, 1995). McKelvie and Wiklund (2004) discuss two longitudinal case studies in order to demonstrate the functioning, integration, and utilization of knowledge in successful and failed opportunity identification and exploitation (Austrian economics). Accordingly, their results challenge the common assumption that entrepreneurs first identify opportunities and then exploit them. Instead, entrepreneurial opportunity identification and exploitation are closely entwined and exploitation influences identification, just as identification influences exploitation. Consequently, while prior knowledge may be of great importance, entrepreneurs are constantly gaining new market knowledge and adapting strategies in accordance with this new knowledge (McKelvie & Wiklund, 2004).
3.2.5. Opportunity cost and the decision to exploit

There is a particular area of investigation in previous research which focuses on individual behaviour in relation to *opportunity cost* and the decision to exploit. Venkataraman (1997) states that entrepreneurs draw their decisions to exploit based on expected compensation (opportunity cost) from entrepreneurship relative to other alternatives, and not based on the compensation relative to other entrepreneurs. Accordingly, several researchers suggest that individuals compare the value of becoming entrepreneurially involved with the outcome from no entrepreneurial commitment (e.g. Johnson, 1986, 1990; Amit et al., 1993). Therefore, to make the decision of exploitation, individuals must believe that they will gain more than they give up (e.g. Johnson, 1986; Hamilton & Harper, 1994). The underlying assumption for opportunity cost-related arguments is that individuals tend to decide to exploit opportunities if the expected benefits are higher than the expected benefits from alternative ways of using their time and resources (Venkataraman, 1997). For example, Van Praag and Cramer (2001) state that an individual will become an entrepreneur if the expected rewards surpass the wages of employment, and the expected rewards depend on an assessment of individual ability and on risk attitude. Particularly the more traditional stream of economic research assumes that individuals tend to exploit venture ideas which have a higher expected value (Kirzner, 1973; Schumpeter, 1934). This assumption is based on the logic that expected value (both monetary and psychic) from exploiting a venture idea is directly related to the value and costs of generating value in other ways (Shane & Venkataraman, 2000). Therefore, individuals are supposed to make their decision to exploit based on expected compensation from entrepreneurship relative to their other alternatives, but not based on compensation relative to other entrepreneurs (Venkataraman, 1997).

The risk taking propensity refers to entrepreneurs’ capability to bear risk. Knight (1921) was one of the first researchers to describe risk and uncertainty related to entrepreneurial activity. Knight claims that entrepreneurs can consider risk, but uncertainty in relation to unknown future investments is not possible to estimate. Consequently, uncertainty aversion is one of the largest inhibitors of entrepreneurship (Amit et al., 1993). For example, Schere (1982) and Boyd (1995) compared entrepreneurs with corporate managers. Both studies found support for the theoretical rationale, which predicts that entrepreneurs would be distinguished from non-entrepreneurs by their orientation toward risk-taking. In a similar study, Stewart et al. (1999) found that psychological constructs are associated with small business ownership. For example, their profile of the entrepreneur as a driven, creative risk-taker is consistent with much of the classic literature concerning the entrepreneur. However, they found only small differences between small business owner-managers and managers, but higher risk-taking propensity among growth-orientated entrepreneurs. Other researchers present similar findings (e.g. Douglas, 1999; Van Praag & Cramer, 2001; Koh, 1996). In a recent study, Forlani and Mullins (2000) tested risk-taking propensity among entrepreneurs in fast growing ventures. The results indicated that entrepreneurs have differing perceptions of similar risks, and they differ in their personal propensities to take risks. Uusitalo (2001) provides empirical evidence from Finland which supports the idea that risk-tolerant workers are more likely to become entrepreneurs.
In this sense, the opportunity cost related to entrepreneurship not only encompasses the anticipated monetary and psychic compensation, but also the expected premiums for bearing uncertainty and illiquidity (e.g. Knight, 1921). Researchers generally suggest that the opportunity cost varies between individuals, and that those individuals with a lower cost should be more likely to exploit entrepreneurial opportunities (e.g. Amit et al., 1993). For example, the opportunity cost argument suggests that a lower income level for individuals positively affects their tendency to exploit venture ideas (e.g. Amit et al., 1995; Evans & Leighton, 1989; Dolton & Makepeace, 1990; Johansson, 2000; Rees & Shah, 1986; Taylor, 1996; Bernhardt, 1994). For example, Rees and Shah (1986) found that the likelihood for self-employment does depend on the individuals’ earnings level. In that sense, the salary level is an important determinant for predicting entrepreneurial probability (Dolton & Makepeace, 1990), since the salary-level influences the likelihood to stay employed. In line with this argument, Eisenhauer (1995) found that a raise in the salary level and income insurance provided to wage workers corresponded negatively to their decision to exploit.

The likelihood of exploitation is higher among persons with lower alternative costs. Therefore, individuals with higher incomes tend to have a higher alternative cost compared to unemployed and low educated individuals (e.g. Eisenhauer, 1995; Evans & Leighton, 1989; Johnson, 1986). For example, results presented by Eisenhauer (1995) suggest that there is a link between the probability of a worker choosing self-employment and the worker’s wealth, probability of unemployment and hours of work in the wage-sector. The expected benefit increases if the individual has available knowledge and information via education and experience, which in turn yields the expected income. Moreover, existing literature tends to explain underlying reasons for the decision to exploit, based on the risk taking and opportunistic behaviour of entrepreneurial individuals (e.g. Knight, 1921; Kihlström & Laffont, 1979). For example, Knight (1921) argues that individuals who are less risk averse choose to be entrepreneurs because they are willing to bear income uncertainty. Although dominant areas of research attempt to explain the reasons behind entrepreneurship, one of the few, if not the only empirical contribution on risk and uncertainty, is offered by Khilström and Laffont (1979). Finally, as pointed out in extant literature, identification of a venture idea is not vital if an entrepreneur is not going to exploit it (e.g. Shane & Venkataraman, 2000; Shane, 2003). Therefore, it is little wonder that previous researchers value the decision to exploit as a central part of entrepreneurial process. According to Shane and Venkataraman (2000), the decision is the key for entrepreneurial action, even if identification is a necessary precondition. Similarly, Choi and Shepherd (2004) argue that exploitation is a necessary step in order to create successful businesses. Bhave (1994) suggests that the commitment to pursue a venture idea is vital, regardless of whether the commitment is conscious or unconscious, formal or informal. For example, Herron and Sapienza (1992) describe a detailed means-end analysis which may result in the decision to launch a new venture, or the restarting of the entrepreneurial process.

### 3.2.6. Mode of organizing and initial outcomes

Previous researchers show interest in the organizing process (e.g. Gartner, 1985; Low & MacMillan, 1988) and the mode of exploitation (e.g. Schumpeter, 1942; Shane, 2002).
Organizing occurs over time and is not a static state since founding entrepreneurs need to obtain resources (e.g. equipment and employees) and set up production processes. Paradoxically, previous research often focuses on existing organizations but ignores the emergence of new organizations and fails to distinguish how organization creation processes occur (Katz & Gartner, 1988). The choice of the mode for exploitation derives from the individual who identifies the opportunity. They need to consider their willingness to exploit it themselves, or on behalf of someone else. Further, the opportunity can be exploited via a hierarchical mechanism, such as a firm, or via some other market mechanism, such as licensing or franchising (Shane, 2003). Johannisson (2005) emphasizes that the borders of entrepreneurship fluctuate over time since conceptions, activities and persons in a project or a “company” are bound to change over time. Consequently, the formal boundaries of an organization are merely a legal framework, whereas entrepreneurship as such does not require the creation or existence of formal organizations. Instead, it is the individuals who interact and create the essence, not organizations (Sarasvathy, 2001; Johannisson, 2005).

Nevertheless, in new venture creation literature, the theme is organizational creation and the company is the unit of analysis (e.g. Gartner, 1985, 2001). For instance, Carter et al. (1996) analyze new venture start-up activities undertaken by nascent entrepreneurs. They found that some entrepreneurs started a business, some gave up and some are still trying. Consequently, regarding the organizational design, some researchers argue that entrepreneurship is restricted to new company creation (e.g. Gartner, 1985; 2001; Low & MacMillan, 1988), whereas others are much more relaxed on this point (e.g. Casson, 1982; Amit et al., 1993; Shane & Venkataraman, 2000; Davidsson, 2003, 2004; Johannisson, 2005). For instance, Davidsson (2003) argues that organizing is an important aspect of the exploitation process for all new activity, regardless of the formal or legal organizational context. Consequently, a few studies have emphasized the vehicle by which exploitation will occur. For example, Shane (2001a) demonstrates that it is not necessary to make the organizing decision right at the start of the process. Instead, it is possible to develop the initial idea further and establish business-related details before deciding on an appropriate mode of exploitation. It is also possible that someone else continues with exploitation. For instance, Shane (2002) examines which university inventions (i.e. opportunities) are most likely to be commercialized or licensed. The results indicate that opportunities are more likely to be licensed and inventors receive larger royalties when patents are effective.

Moreover, extant literature suggests that resource availability will influence the selection of an appropriate mode for exploiting an opportunity (Aldrich, 1999). Resources refer to all assets, abilities, processes, attributes and knowledge controlled by the individual. Most research has focused on the entrepreneur’s access to intangible resources (e.g. Johannisson, 2000; Davidsson & Honig, 2003). In that sense, both psychological and demographic characteristics as well as entrepreneurial behaviour should be regarded as individual level resources. More specifically, resources can be characterized as “all tangible and intangible assets that are committed to or available for the discovery and exploitation of a new venture idea” (Davidsson, 2004:115). For example, Johannisson (2000) divides these assets into human, social and financial capital, though there are, naturally, other ways to segregate and define assets (e.g. Penrose, 1959; Powell et al., 1996; Nahapiet & Goshal, 1998). Previous literature
normally refers to resources and various forms of capital on the organizational level. For example, Nahapiet and Goshal (1998) discuss the role of organizational, social and intellectual capital, which is similar to Powell et al. (1996) whose empirical study suggests that learning via inter-organizational collaboration can be a locus for innovation. More recently, researchers have also emphasized the individual as the source of resources. For instance, Davidsson and Honig (2003) examine individual factors leading both to opportunity identification and exploitation. The underlying assumption is that there are relations and partial substitutability between different forms of capital (Coleman, 1990). For example, human capital and social capital can be used to compensate for the need of and/or increase the access to financial capital (Johannisson, 2000). However, essential parts of human and social capital can not be acquired with financial capital, e.g. trust or experience (Coleman, 1990).

Entrepreneurship studies that focus on human capital tend to capture the education and experience of the individual, and especially the organization. For instance, Chandler and Hanks (1994) found in their study that individual level competences describe the relationships between the quality of the opportunity and firm performance. Similarly, results presented by Davidsson and Honig (2003) emphasize human capital in predicting entry into nascent entrepreneurship, but they found less support for the influence of tacit and explicit knowledge concerning carrying the start-up process towards successful completion. Chen, Greene and Crick (1998) suggest based on their study that potential entrepreneurs tend to have a stronger belief in their capability to successfully perform the various roles and tasks associated with entrepreneurship. Consequently, there may be many individuals who disregard entrepreneurship, not because they actually lack the necessary skills, but because they believe that they lack them. On the other hand, previous research on social capital suggests that such capital has many dimensions (e.g. Nahapiet & Goshal, 1998; Tötterman & Sten, 2005). In general, the assumption is that the presence of social interaction ties provides access to resources, but with a limited network individuals are forced to rely on third party interaction (e.g. Johannisson et al., 2002).

Entrepreneurs and others need to be committed to the relationship, and, thus, social capital is also characterized by a shared understanding of common goals and proper ways of acting (e.g. Yli-Renko, 1999; Puhakka, 2002). Similarly, trust and trustworthiness are important ingredients of social capital (Coleman, 1990). However, as Sanner (1997) points out, it is important to remember that trust is not unlimited or permanent and it has to be earned on a constant basis. The results presented by Davidsson and Honig (2003) suggest in relation to social capital that parents and/or close friends or neighbours in business, as well as encouragement from friends and family is strongly associated with the probability of identifying business opportunities and the decision to exploit. Baron and Markman (2000) assume that a high level of social capital builds on a favourable reputation, relevant previous experience, and direct personal contact. They in turn often assist entrepreneurs in gaining access to financing, customers and other significant stakeholders. Supporting this, Hansen (1995) found that social resources are the active ingredient in entrepreneurial networking. The results suggest that entrepreneurs should focus on the resource acquisition process itself when developing contacts and interacting with others.
Consequently, previous research suggests that resources are the foundation for strategy and that unique bundles of resources generate the competitive advantage of the venture (e.g. Barney, 1991; Collis & Montgomery, 1995; Venkataraman, 1997). Apart from previous efforts, the debate generally ignores the origins of resource strengths (i.e. entrepreneurs and others), and the influence of these on value-creating activities within the emerging venture (Brush et al., 2001). This evident lack in extant research is particularly crucial when studying pre-formation processes (Shane & Venkataraman, 2000). The limited amount of empirical research suggests that most nascent entrepreneurs begin with rather complex and instrumental human and social capital which they have developed in another professional enterprise or work setting (Brush et al., 2001; Davidsson & Honig, 2003). These resources are then utilized to assemble financial resources, and to hire and train qualified individual resources. After the initial execution of the venture, the entrepreneur attempts to transform resources, mainly through organizational learning, into more unique and valuable organizational resources. However, initially, each entrepreneur has a unique resource endowment, and thus, resource assembling is bound to take different paths. In that sense, an entrepreneur is faced with a multitude of decisions when assembling resources. The entrepreneurial decisions range from choices related to the acquisition of essential resources, to the combination and further refinement of these. These choices are bound to occur simultaneously and in short order rather than sequentially (Brush et al., 2001).

Previous research suggests that it is important to consider outcomes from entrepreneurial activity. For example, experience gained in locating and pursuing opportunities results in the development and growth of the individuals that took part in the process (Zahra & Dess, 2001). Moreover, as indicated by Venkataraman (1997), entrepreneurship is concerned with the creation of private wealth. Consequently, personal profit is assumed to be a central driver that drives entrepreneurial activity. Some researchers claim that entrepreneurs are likely to enhance society when pursuing their selfish means; however, as pointed out by Baumol (1990) and Davidsson (2004), entrepreneurship is not necessarily always beneficial to society. For example, organised crime or rent-seeking can be described as unproductive entrepreneurship (Baumol, 1990).

Moreover, previous research has focused on different types and levels of outcomes (e.g. financial and non-financial or long-term and immediate outcomes). Hitherto, most entrepreneurship literature has emphasised economic performance and success. For example, Dunne et al. (1989) focus on the performance (i.e. profit) of new ventures that enters given manufacturing industries in the US. For some reason, performance and success dominates previous entrepreneurship literature, whereas far less emphasis has been given to non-economic outcomes. Gimeno et al. (1997) develop a model which allows measurement of the minimal threshold for an entrepreneur to continue operations. Economic performance is one indicator, but in addition it measures psychic income (personal satisfaction and enjoyment from venturing) as an important predictor for business survival. Furthermore, previous literature suggests that individuals continuously enter and exit entrepreneurial processes. For example, due to resource deficits, the entrepreneur may decide to sell the original idea to others (e.g. Zahra & Dess, 2001), or at least revise the business concept (Herron & Sapienza, 1992). For
some reason, business failure is almost an unmentionable research topic in entrepreneurship literature (cf. Davidsson, 2004).

3.3. TWO PERSPECTIVES ON ENTREPRENEURSHIP PROCESS THEORY

The previous section set forth an extensive literature review on previous entrepreneurship and entrepreneurial process literature. The outcome of this exercise was that the majority of alternative ways to describe entrepreneurial processes originated from specific fields within the discipline of economics and from organizational theory, whereas subsequent conceptualizations were more multidisciplinary in their nature (e.g. psychology, sociology, and management). In that sense, it is important to introduce the reader to selected theoretical contributions which commonly govern the explanation for the progression of entrepreneurial processes. Previous entrepreneurship research has broadly strived to answer a set of four questions regarding the entrepreneur: “Who is the entrepreneur...?”, “What is an entrepreneur doing...?”, “Why is the entrepreneur doing it...?”, and “How is the entrepreneur doing it ...?” In that sense, the functional approaches (what) derive from economics, the approaches focusing on the individual (why and who) from human sciences, and the approaches on the processes (how) from management and organization sciences. However, the distinction is not that clear cut, since entrepreneurship theory is multidisciplinary of its very nature. Nevertheless, the literature review suggests that the utilization of the process approach is increasing in entrepreneurship research.

3.3.1. Entrepreneurial opportunities

According to Eckhardt and Shane (2003), entrepreneurial opportunities are situations in which new goods, services, raw materials, markets, and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships. Sarasvathy et al. (2003) suggest that there are three differing opportunity perspectives in entrepreneurship research: the allocative process view (Schumpeter, 1934), the discovery process view (Kirzner, 1973) and the creative process view (Sarasvathy, 2001). These three views are described in Table 1 below.
Table 1 Comparing the three views of entrepreneurial opportunity

<table>
<thead>
<tr>
<th>View</th>
<th>Allocative Process</th>
<th>Discovery Process</th>
<th>Creative Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is an opportunity</td>
<td>Possibility of putting resources to good use to achieve given ends</td>
<td>Possibility of correcting errors in the system and creating new ways of achieving given ends</td>
<td>Possibility of creating new means as well as new ends</td>
</tr>
<tr>
<td>Focus</td>
<td>Focus on System</td>
<td>Focus on Process</td>
<td>Focus on Decisions</td>
</tr>
<tr>
<td>Method</td>
<td>Opportunities “recognized” through deductive processes</td>
<td>Opportunities “discovered” through inductive processes</td>
<td>Opportunities “created” through abductive processes</td>
</tr>
<tr>
<td>Domain of application</td>
<td>When both supply and demand are known</td>
<td>Only one or the other (supply or demand) known</td>
<td>When both supply and demand are unknown</td>
</tr>
<tr>
<td>Distribution of opportunity vectors</td>
<td>Opportunity vectors are equally likely</td>
<td>Existent, but unknown probability of opportunity vectors</td>
<td>Probabilities for opportunity vectors are completely non-existent</td>
</tr>
<tr>
<td>Assumptions about information</td>
<td>Complete information available at both aggregate and individual levels</td>
<td>Complete information at the aggregate level, but distributed imperfectly among individual agents</td>
<td>Only partial information even at the aggregate level, and ignorance is key to opportunity creation</td>
</tr>
<tr>
<td>Assumptions about expectations</td>
<td>Homogeneous expectations at both the micro and macro levels</td>
<td>Homogeneous expectations at the macro level; heterogeneous expectations at the micro level</td>
<td>Heterogeneous expectations at both micro and macro levels</td>
</tr>
<tr>
<td>Management of uncertainty</td>
<td>Uncertainty managed through: Diversification</td>
<td>Uncertainty managed through: Experimentation</td>
<td>Uncertainty managed through: Effectuation</td>
</tr>
<tr>
<td>Definition of success</td>
<td>Success is a statistical artifact</td>
<td>Success is outliving failures</td>
<td>Success is a mutually negotiated consensus among stakeholders</td>
</tr>
<tr>
<td>Unit of competition</td>
<td>Resources compete</td>
<td>Strategies compete</td>
<td>Values compete</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Strategies for: Risk management</td>
<td>Strategies for: Failure management</td>
<td>Strategies for: Conflict management</td>
</tr>
</tbody>
</table>

Source: Sarasvathy et al. (2003:29)

The origins of the **allocative process view** lie in the philosophy of Adam Smith and the equilibrium-based calculus of Alfred Marshall and Leon Walras in the late 1800s as well as in the work of Kenneth Arrow (1984) and Gerard Debreu (1991) and others. The underlying rationale for the allocative view is that if both sources of supply and demand exist rather obviously, then the opportunity evident in bringing them together has to be “recognized”. Consequently, supply and demand are brought together and implemented either through an existing firm or a new firm. The allocative process view focuses entirely on the final effects of opportunity creation, treating the processes leading to these final effects as mere detail. Sarasvathy et al. (2003) argue that neoclassical economic theory relies on several efficiency properties of markets (e.g. allocative, productive, coordinative, and informational). They claim that it makes sense to focus on the allocative efficiency of markets and its implications for opportunity recognition. Consequently, allocative efficiency is achieved when: a) the income of consumers is optimally allocated to consumption, that is they are able to buy the goods and services that they value most; and b) resources (factors) are optimally allocated to production, in other words, they are used to produce the goods and services that consumers desire. Therefore, allocative efficiency is attained in a perfectly competitive market (i.e. large number of small-scale actors, price homogeneity, factor uniformity and mobility,
constant return to scale and perfect knowledge distribution). There is also an assumption of markets for all possible products and services, and free entry and exit for all agents to these markets. Optimal allocation of resources also requires an absence of any divergence between private and social costs, and the existence of perfect competition in all sectors of the economy. Disequilibria are a short-term phenomenon, since the balance of demand and supply (optimal price level) will eventually guide the market into equilibrium.

The allocative view focuses on the optimal utilization of scarce resources, and so an opportunity is any possibility of putting resources to better use. In that sense, the allocation of resources is at equilibrium and there is no space for entrepreneurial opportunities. Similarly, at disequilibrium, opportunities for short profits disappear quickly, since profits attract new firms that enter the market. Another explanation for the opportunity to make profits is related to changes in the cost structure (e.g. via technological innovation), which restructures the cost of bringing products or services to the market. Nevertheless, the basic assumption is a random information distribution in the system, and thus, no agent has the ability to benefit systematically from superior information. Therefore, an opportunity is not explicit to any one individual since there is no informational advantage (Sarasvathy et al., 2003). Consequently, researchers continue to debate whether there is any incentive to innovate in a perfectly competitive market, since by definition it does not allow profits in a persistent fashion.

Another interesting aspect is the assumption that without property rights, the individual who recognizes an opportunity will lose control once it is reproduced and accessible to other parties. Moreover, information asymmetry leads to uncertainty, which affects the relation between market supply and demand. High levels of uncertainty may lead to disequilibrium since supply and demand cannot reach an acceptable price level. In such a case, there is often a need for institutional support to overcome the uncertainty and to restore trade in the market (e.g. Knight, 1921). As explained by Sarasvathy et al. (2003) there are several implications stemming from viewing the market as an allocative process. *First*, the focus is on the system and not on individuals or firms, which are all homogeneous in their access to technology and in their cost structures. *Second*, ex ante, all economic agents are equally likely to detect a given opportunity. Opportunity recognition is thus a purely random process. *Third*, applying the term competition to factor markets is as appropriate as applying it to the market for goods and services. In both cases, the assumption is that markets are in a competitive equilibrium. However, the fundamental assumption of equilibrium leads to the perception of markets in static terms (Sarasvathy et al., 2003).

The origins of the discovery process view lie in the philosophical roots of evolution, which derives originally from Darwin in the 1850s. In addition, it builds on the calculus of asymmetric information put forth by Hayek (1945), Nelson and Winter (1982) and others. The underlying rationale for the discovery view is that only the demand or supply side exists, which necessitates the “discovery” of the nonexistent side before they can be brought together. A discovery process emphasizes only the origins of the opportunity for creation, treating the final effects as inevitable products of competitive markets. Previous researchers emphasize that access to information and previous knowledge (Venkataraman, 1997; Shane, 2000) influence the distribution and use of new information. This in turn implies that different individuals will have different
perceptions at given times due to their network position (Burt, 1992), for instance, or necessary information is available only to a few individuals (Von Hippel, 1994). In addition, individuals possess different beliefs about appropriate prices because the process of discovery in a market setting requires the participants to guess each other’s expectations about a wide variety of issues (Kirzner, 1997). However, the vast amounts of new information available from numerous sources create uncertainty (Knight, 1921). This uncertainty enables the discovery of novel combinations of information, which in turn can affect the value of resources. Uncertainty derives from the fact that it is impossible to know such discoveries in advance, since the future is not only unknown but also unknowable. Individuals are not able to form accurate expectations and are instead forced to use knowledge that is subjectively held, incomplete and tacit (Sarasvathy et al., 2003).

Tacit knowledge implies that individuals base their decision-making on invisible elements of experience which are difficult to put into words (e.g. intuition). In addition, individuals produce part of the situation they face by “enacting” it. If multiple actors interact, the production of a situation depends on an “inter-enactment” process (Weick, 1979). Finally, an interaction between individuals results in emergent outcomes, for example, settlement on an appropriate price level for a given good. The opportunity to discover is an outcome of the uncertainty in predicting the future outcome. In that sense, entrepreneurial opportunities are dependent upon asymmetries of information and actors’ prior knowledge. Therefore, entrepreneurs that make buy and sell decisions are not always correct, and the process may lead to “errors” that create shortages, surpluses, and misallocated resources (Sarasvathy et al., 2003).

Individual alertness to a market-related “error” may allow purchase of resources where prices are “too low” and a recombination of them and sales of outputs where prices are “too high”. The notion that individuals can make these genuine discoveries about misallocated resources has led some researchers to stress the role of “surprise” (Kirzner 1997) in the process. Among other factors, the presence of institutions (i.e. routines) may lead to stability in expectations, since expectation formation becomes possible. The underlying assumption is that certain patterns of human behaviour are reasonably predictable, based on the observation of routines. In that sense, institutional routines are important for the discovery process since they allow individuals to make sense of their environment. Routines also assist individuals to understand what a stable structure is, which in turn allows them to notice exceptions. However, as noted by Kirzner (1997), entrepreneurial alertness is limited since an individual cannot be attentive to everything at once. In that sense, alertness faces an opportunity cost of taking something for granted (Sarasvathy et al. 2003).

As with the allocative view, the duration of an opportunity is dependent on the protection of property rights. However, the slowness of information diffusion increases duration. This is particularly the case if time provides reinforcing advantages, such as the adoption of technical standards (network externalities) or learning curves (Sarasvathy et al., 2003). Eventually, entrepreneurial opportunities are cost-inefficient to pursue, because other economic actors seek to benefit from entrepreneurial profits gained from pursuing the opportunity. This is possible, since an externality is created along with opportunity exploitation: information diffuses to other members of society at no cost or low cost, and these individuals can imitate the innovator and appropriate
some of the innovator’s entrepreneurial profit. At some point in time, the entry of additional entrepreneurs reaches a rate at which the costs from new entrants exceeds the benefits, and thus, the incentive for people to pursue the opportunity is reduced (Schumpeter, 1934). However, not only competition leads to cost inefficiency when pursuing an opportunity: the exploitation of an opportunity provides information to various resource providers concerning the value of the resources that they possess. This will lead them to raise resource prices over time, in order for them to capture some of the entrepreneur’s profit for themselves (Kirzner, 1997). Consequently, the diffusion of information and learning about the accuracy of decisions over time, combined with the lure of profit, will reduce the incentive for people to pursue any given opportunity. According to Sarasvathy et al. (2003), the strength of the discovery view is in the twofold premise of a continuous supply of new information and a continuous process of realizing information about the “errors” of prior expectations, which together suggest that the market process will be a continuous one and involve human activity.

Finally, the origins of the creative process view lie in the philosophy of pragmatism professed in the early 1900s by James and Dewey, which points to the notion of human “free will” regarding their calculus of contingency (Sarasvathy et al., 2003). The underlying rationale for the creative view is that if neither supply nor demand exist in an obvious manner, one or both have to be “created”, and several economic inventions in marketing, financing etc. have to be made, for the opportunity to come into existence. Creative processes emphasize the decisions and actions of the agents, making both origins and final effects contingent upon those decisions and actions. The creative process view is more recent within entrepreneurship research, which explains why it is less developed than those presented above (cf. Sarasvathy et al., 2003). According to Buchanan and Vanberg (1991), the creative view is characterized by ends emerging endogenously within a process of interactive human action (based on heterogeneous preferences and expectations) striving to imagine and create a better world.

Similarly, Johannisson (2005) suggests that entrepreneurship is the process that brings together and organizes thoughts, resources and people. The creative process view suggests that human action is not strictly rational, and thus, human behaviour is essentially creative (Buchanan & Vanberg, 1991). For example, March (1994) has developed a decision-making model based on the fundamental proposition of the creative process view. Accordingly, in the ‘garbage can model of decision making’, March (1994) assumes that there are exogenous, time-dependent arrivals of choice opportunities, problems, solutions, and decision makers. Both problems and solutions connect with specific choices, and interlink with each other. This is not the case due to some means-ends linkage (cf. Shane, 2003), but because of the temporal proximity of the problems and solutions at hand. In line with this, the initiation of exploiting a business venture may emerge from a set of problems, solutions, and decisions that come into temporal proximity. The coming into being of particular choices does not necessarily require any particular means-end chains.

Sarasvathy (2001) has developed a creative process theory for entrepreneurship, based on empirical work in entrepreneurial decision-making. The effectuation approach relies on the assumption that values and meaning emerges simultaneously during the entrepreneurial process. This is an alternative explanation to predictive (causal) rationality explained above. According to Sarasvathy (2001), effectuation underlines
decisions made by entrepreneurs in bringing new ventures and markets into existence. In direct opposition to the predictive rational view, the starting point of the entrepreneurial process is often without any specific goals. Consequently, opportunities do not pre-exist, and there is no need to debate regarding recognition or discovery of opportunities. Instead, the creation of ventures takes place during the process, which involves intense dynamic interaction and negotiation between process participants. These parties seek to operationalize their (often vague and unformed) aspirations and values into concrete products, services and institutions that constitute the economy (Sarasvathy, 2001; Sarasvathy et al., 2003). Other attempts in this direction include the empirical work based on Weick’s theories of enactment and sense making (Weick, 1979). In a rather similar way, Johannisson (2005) assumes that the entrepreneurial process progresses through smaller observations, experiments and via learning, which may occur rather irrationally and sometimes in a highly non-linear fashion.

The entrepreneur must be alert and capable of organizing the findings into new patterns for them to have an impact (Johannisson, 2005). Entrepreneurial vision is important, but should constantly be reshaped in accordance with observations of the surrounding environment. In that sense, the entrepreneurial contribution is more about interpreting and taming circumstances than driving forwards one’s own ideas (Johannisson, 2005). This in turn, makes the entrepreneurial process less predictable and straightforward since the business environment is often volatile and the entrepreneurial action is shaping continuously along the way. Johannisson (2005) suggests that entrepreneurship is by no means restricted to innovative activity or the creation of formal business organizations. Instead, entrepreneurship and the entrepreneurial process may very well reflect daily, less formal creative activity performed by any individual regardless of their social setting (“creactivity”). Moreover, in contrast to sociologists (e.g. Hannan & Freeman, 1977), the assumption is that humans create and develop the social constitution, which gives more room for entrepreneurial influence.

It is possible to consider that the three process views (allocative, discovery and creative views) are equally valid, but they lack overlapping modes of thinking about entrepreneurial opportunities. However, in that case, we would only focus on the distinctions and ignore the potential of relationships and interactions between them. Instead, Sarasvathy et al. (2003) suggest that the creative view might be more general and prior than the other two views, since such processes may contain recognition and discovery as necessary inputs. However, the key aspects of creativity are, in fact, not necessary for recognition or discovery processes to take place. Consequently, before it is possible to “recognize” or “discover” entrepreneurial opportunities, it is likely that economic actors “create” them through their decisions and actions (conscious or unintended). For example, a creative process may form and specify particular goals, values and preferences, and then a discovery process can discover various means to achieve these goals. Eventually, when knowing both ends and means, then an allocative process can develop suitable means to achieve particular ends. On the other hand, it is possible to argue that the three process views are extremely context dependant (Sarasvathy et al. 2003). In that sense, each of them is useful under certain circumstances, problem spaces and decision parameters. For instance, the allocative view requires a clear specification of resources and goals, whereas the creative view suits situations with a high level of uncertainty and a need for making ambiguous
choices. This section introduced three views on entrepreneurial opportunities; in the next, the discussion continues with entrepreneurial behaviour.

3.3.2. Entrepreneurial behaviour

In the last decade, the literature on entrepreneurial traits has been questioned by many researchers (e.g. Gartner, 1988; Low & MacMillan, 1988; Bird & Jelinek 1988; Timmons, 1999). These researchers generally emphasize that entrepreneurship is about the creation of new organizations. For instance, Bird and Jelinek (1988) suggest that most previous entrepreneurship research has focused on two domains: the entrepreneur, and his or her strategy for venturing. However, focusing on the characteristics of the individual entrepreneur has provided little predictive power and limited insight into the functioning of the entrepreneur. Similarly, the new venture strategy approach has been based on small samples and the outcome has mostly been proscriptions and maps for new venture planning. Instead, Bird and Jelinek (1988) call for research that focuses on the process (behaviour and relationships) and organizations created by the entrepreneur, and moreover, on the relations between these variables, and the entrepreneur and his or her context (e.g. Gartner, 1985). In addition, Gartner (1988) and Katz and Gartner (1988) consider organization theory to lack treatment of organizational emergence, since organizations are assumed to exist without any further clarification of their origins.

Gartner (1985; 1988; 1990) was among the first researchers to emphasize the significance of a behavioural approach to entrepreneurship research. The underlying idea of this conception is that entrepreneurship is about the creation of new organizations. The particular research stream is as much interested in the creation of organizations (subset of organization theory) as in entrepreneurship theory. It determines what constitutes entrepreneurship based on the choice of mode to exploit opportunities (either via creating a new firm, or exploitation via an existing organization). According to Davidsson (2005), previous research often deals with genuine individual behaviour in a black box manner in between dispositions and outcomes. The behavioural approach argues that it is central for entrepreneurship research to study what entrepreneurial individuals actually do in order to initiate and successfully carry through entrepreneurial processes. This is much in line with Gartner (1988; 1990), who suggests that entrepreneurship research ought to focus on the behaviours in the process of organizational emergence.

Similar to many other research areas in entrepreneurship research, the behavioural approach is diverse in its nature, since theories derive from a broad set of disciplines and research occurs on different levels of study. Consequently, the perspective largely agrees with previous research that entrepreneurship is an interdisciplinary phenomenon which is suitable for studies using different theoretical settings (Gartner, 2001). Rather than stating a distinct delineation for the field of entrepreneurship research, Gartner (2001) presents a proposition for re-directing entrepreneurship research towards focusing on the creation of new organizations. However, Davidsson (2004) recommends that Gartner’s contributions regarding conceptualization should be considered as an attempt to delineate the field, rather than merely as definitions or descriptions of the phenomenon (cf. Gartner, 1985, 1988; 1990; 1993; 2001, see also Gartner et al., 1992;
Katz & Gartner, 1988). Consequently, in his seminal article, Gartner (1985) states that processes of organizational emergence involve individuals and various activities undertaken by those individuals. These activities occur under certain environmental conditions, and they eventually result in the creation of new organizations. The framework captures different questions related to organizational creation: who (the individual) is doing what (organization), how (process), and where (environment).

According to results from the literature review, the number of studies that explicitly focus on behaviour remains limited. Nevertheless, Gartner’s view has a clearly defined focus and a strong process orientation, which renders unique contributions and avoids over-extending the field. The re-direction of the field from a dispositional to a behavioural view also inspires further contributions. In addition, it addresses the environment, which is only limitedly treated in economics and management studies that focuses on entrepreneurship (Davidsson, 2004). Moreover, it offers a discrete definition, arguing that organization creation is one of the few situations where most researchers agree that entrepreneurship occurs (Gartner, 2001). However, the approach ignores discovery (Shane & Venkataraman, 2000), and instead values organization as an important aspect of the exploitation process (Gartner, 1988). Furthermore, the approach mainly overlooks alternative modes of exploitation (Shane & Venkataraman, 2000). According to various previous researchers, entrepreneurship research that only focuses on new firm or venture creation ignores several forms of entrepreneurial activity (Venkataraman, 1997; Shane, 2003). Therefore, this approach mostly ignores the possibility of alternative ways to conduct entrepreneurial activity. As a result, the suggested delineation is rather narrow in overall scope, but simultaneously quite broad in defining what kind of emerging organizations qualify. One could argue that a new organization is a special case of organizational change, which in turn does not constitute entrepreneurship (cf. Davidsson, 2003).

### 3.3.3. Integrating opportunities and behaviour

As Bygrave (1989a) points out, to date, entrepreneurship research has emerged by using methods and theories from other sciences, but in order to become a distinct discipline it needs to develop its own methods and theories. Otherwise, there exists an evident risk that the field will remain driven by established disciplines. Even worse, borrowed methods and theories may sometimes be unsuitable to study disjointed, discontinuous, non-linear events, which are typical for entrepreneurship. In line with this, Venkataraman (1997) argues that if entrepreneurship is to emerge as a legitimate social science field, a distinctive domain is required. Probably, one of the best known attempts to define entrepreneurship as a scholarly domain is put forth by Venkataraman (1997), Shane and Venkataraman (2000) and Shane (2003). It seems as if researchers are increasingly prepared to consider this particular process view as the base for entrepreneurship research. However, to become more widely accepted, some major changes must be made to the proposed conceptual frameworks (e.g. Zahra & Dess, 2001; Singh, 2001; Erikson, 2001; Davidsson, 2003). There are also researchers who question the need for a uniform scholarly domain of entrepreneurship (e.g. Veciana, 1999).
It is evident that the delineation originally put forth by Venkataraman (1997) is set out to create a distinctive field of entrepreneurship research (cf. Low, 2001). The underlying purpose of Venkataraman and later contributions (e.g. Shane & Venkataraman, 2000; Shane, 2003; Eckhardt & Shane, 2003) is to unify previous research efforts into to a more distinct scholarly research domain of entrepreneurship. The proposed framework takes an interdisciplinary approach to entrepreneurship, since applied theories derive originally from the disciplines of psychology, economics, and sociology. In that sense, the authors presume that an economic framework based on the opportunity discovery view (e.g. Kirzner, 1973) requires characteristics of entrepreneurs which are best described by psychology and sociology. Previous efforts to conceptualise entrepreneurship have mainly taken place within the established disciplines, and, as a result, they may not be able to explain the complex and multi-dimensional phenomenon of entrepreneurship. In contrast to the view held by Gartner (1985; 2001), entrepreneurship is not necessarily expected to involve new firm or venture formation: it may also occur in other economic settings. In general, both Venkataraman and Shane describe the economy as heterogenic, which makes entrepreneurship research considerably more challenging. More specifically, according to some authors (Venkataraman, 1997; Shane & Venkataraman, 2000, in Shane 2003:4), the field of entrepreneurship research is defined as follows:

“Entrepreneurship is an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously had not existed.”

In this sense, the field should engage in the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them. Moreover, they highlight the following three sets of research questions as essential for future research: 1) why, when and how opportunities for the creation of goods and services come into existence; 2) why, when and how some people and not others discover and exploit these opportunities; and 3) why, when and how different modes of action are used to exploit entrepreneurial opportunities. In the subsequent dialogue, outcomes from the exploitation process are assumed to represent a fourth significant set of research questions (Zahra & Dess, 2001; Shane & Venkataraman, 2001). In this sense, outcomes from the process underline primarily the characteristics of individuals and opportunities, and secondarily, the environmental attributes (Shane & Venkataraman, 2001). Moreover, the entrepreneurial process is embodied with heterogeneity and thus, it pre-assumes disequilibrium (cf. Eckhardt & Shane, 2003). More specifically, the entrepreneurial process engages the identification and evaluation of an opportunity (discovery), which is followed by a decision regarding whether or not to exploit it. Thereafter, efforts are made to obtain resources, to organize those resources into a new combination, and to develop a strategy for the new venture. Importantly, during the process, the different activities are all influenced by factors at the individual, industry, and institution level (Shane, 2003).

According to Eckhardt and Shane (2003), the conceptual framework has several implications for theory building and testing in entrepreneurship: (1) that there should be a shift away from the traits paradigm; (2) that there should be a general framework that allows both testing of new theories and linkage of existing ones; (3) it assumes that the
entrepreneurial process is strongly influenced by factors that are not controllable by individuals; (4) that there should be an important focus on emergence and existence of entrepreneurial opportunities and finally, (5) that applied methodologies must be modified. Since its publication, the delineation (Venkataraman, 1997; Shane & Venkataraman, 2000) has stimulated considerable discussion, debate and commentary among entrepreneurship researchers. For example, Davidsson (2003) embraces the authors for their efforts to outline a scholarly domain, rather than suggesting another definition of the societal phenomenon regarding entrepreneurship. Hence, the mixture of focus and openness put forth in the delineation resolves several challenges of earlier definitions and research streams in entrepreneurship (Davidsson, 2003). Moreover, the delineation brings distinctive elements to entrepreneurship research, since the focus is on entrepreneurs’ actions, future goods and services rather than on the traits of individual entrepreneurs or organizations. However, the delineation is also criticised for inspecting the entrepreneurial process as a linear and sequential process since discovery and exploitation are commonly at least partially overlapping processes (Davidsson, 2004).

In addition, Singh (2001) criticises the authors’ definition of opportunities as anticipating certainty, since profitability is often in practice regarded as more or less uncertain. Moreover, as pointed out by Zahra and Dess (2001), the original delineation lacks “outcomes” of the exploitation process. In fact, outcomes are added in the authors’ later contributions (Shane & Venkataraman, 2001; Shane, 2003; Eckhardt & Shane, 2003) to point at market orientation. On the other hand, Veciana (1999) criticises the study of discovery and exploitation as not being genuine for entrepreneurship research. However, the study of emerging opportunities is considered at least by other researchers as truly genuine (cf. Davidsson, 2003). Finally, as suggested by Busenitz et al. (2003), opportunities might become the unique domain of entrepreneurship since no academic discipline has so far developed the area of opportunities. There are researchers who believe that the suggested research focus will probably result in a more restrained and less comprehensive field of research (Low, 2001).

Moreover, many of the currently-studied phenomena in entrepreneurship research are left outside of its boundaries because it focuses precisely on entrepreneurship as a process. On the other hand, the suggested domain simultaneously enables a broad range of research topics and perspectives which are best explored with both multi-disciplinary and multi-method approaches. Still, the authors are not trying to offer yet another definition, but instead rely on previous research from different disciplines when presenting their distinction. The focus on the emergence of future (emerging) goods and services will distinguish entrepreneurship from, for instance, established theories in economics and management. The delineation is not bounded by organizations (age, size or ownership) and it does require new firm formation. Individual behaviour is central, but the focus is on the overall entrepreneurial process and the widely-criticised psychological traits are only one element in the overall framework (cf. Bruyat & Julien, 2001; Bruyat & Fayolle, 2002).

To unify the entrepreneurship research community, Davidsson (2003, 2004) makes a contribution by bringing together the two schools of entrepreneurial processes presented earlier. Consequently, Davidsson (2004) agrees with Gartner (1988) that entrepreneurship research should study behaviour in the process of emergence. In line
with Shane and Venkataraman (2000), the process is further divided into two sub-processes, namely *discovery* (including evaluation) and *exploitation*. Entrepreneurship research is, according to Davidsson (2004), not limited to study only or primarily the emergence of new (independent) organizations, which would be in line with Gartner’s delineation (2001). Hence, instead research should focus on the emergence of *new market offerings* through different *modes of exploitation* (Shane & Venkataraman, 2000). Moreover, entrepreneurship research is anticipated to study various *outcomes* on different levels (Venkataraman, 1997; Shane & Venkataraman, 2001; Zahra & Dess, 2001). Entrepreneurship research is also encouraged to adopt as a fundamental assumption that the economy is characterized by *heterogeneity* (Shane & Venkataraman, 2000). Furthermore, Davidsson (2003) suggests that entrepreneurship research should adopt the supplementary fundamental assumption that the economy is also characterized by *uncertainty*. In addition, entrepreneurship research should not only study success, but also focus on *failure* and induced processes of emergence. Following these assumptions, Davidsson (2003:37-38) put forth the following definition:

> “Starting from assumptions of uncertainty and heterogeneity, the domain of entrepreneurship research encompasses the study of processes of (real or induced, and completed as well as terminated) emergence of new business ventures, across organizational contexts. This entails the study of the origin and characteristics of venture ideas as well as their contextual fit; of behaviours in the interrelated processes of discovery and exploitation of such ideas, and of how the ideas and behaviours link to different types of direct and indirect antecedents and outcomes on different levels of analysis.”

Accordingly, *heterogeneity* refers to the assumption that economic aggregates (e.g. demand or industry) are not assumed to be the sum of identical micro-level entities (e.g. individuals or organizations). Hence, for example, individuals are assumed to differ due to experience, skills, cognitive capacity, (e.g. Cohen & Levinthal, 1990; Conner & Prahalad, 1996; Shane & Venkataraman, 2000) or their motivation (Birley & Westhead, 1994), whereas organizations differ based on the governance structure (Foss, 1993) and resources (e.g. Barney, 1991; Cohen & Levinthal, 1990; Collins & Montgomery, 1995; Foss, 1993; Galunic & Rodan, 1998; Greene, Brush & Hart, 1999; Penrose, 1959). Moreover, the heterogeneous external environment is assumed to influence the emergence of a venture idea (Zahra & Dess, 2001). Consequently, individuals and organizations are faced with different opportunities and will create diverse venture ideas and strategies for exploiting them. *Uncertainty* results largely from this heterogeneity, as individuals and organizations have different understanding of what is a successful or acceptable outcome (Gimeno et al., 1997; Venkataraman, 1997). Moreover, decision-making is assumed to be made in situations where a certain or calculable outcome is not known. Hence, genuine risk exists and cannot be calculated away (Knight, 1921). The *process of emergence* (Gartner 2001), according to Shane and Venkataraman (2000:218), “…*explains and predicts a set of empirical phenomena not explained or predicted by conceptual frameworks already in existence in other fields*”). Both *discovery* (i.e. identification) and *exploitation* are necessary for entrepreneurship to occur and, therefore, both should be studied in entrepreneurship research (Shane & Venkataraman, 2000).

Identification is a process where the venture idea is perceived and developed from an initial idea to a fully developed business concept with many specific operational aspects worked out (Bhave, 1994). Similarly, exploitation is a process which refers to the
decision to act upon a perceived venture idea and to the behaviours that are undertaken to achieve its realization (cf. Shane & Eckhardt, 2003). Exploitation is similar to the organizing of new ventures, the research agenda put forth by Gartner (1988; 2001). Identification and exploitation are often described as at least partially overlapping processes (Bhave, 1994; Sarasvathy, 2001; Davidsson, 2003, 2004). Often this process is described as following a certain direction, but empirical research suggests that venture creation processes can follow almost any sequence (Bhave, 1994; Carter et al., 1996; Gartner & Carter, 2003). Studying entrepreneurship as it happens requires that real or induced, and completed as well as terminated emergence of new business ventures are included in the research design. Moreover, in some cases, theory development and laboratory results may in fact provide more accurate results than empirical enquires involving entrepreneurs (Sarasvathy, 2001). The phrase across organizational contexts refers to the different modes of exploitation (Shane & Venkataraman, 2000), which is in apparent conflict with Gartner’s (1988; 2001) perception. On the other hand, Gartner’s (2001) view is more interested in “organizing” and not essentially the creation of formal and legally-defined organizations (Davidsson, 2004).

Moreover, entrepreneurship may occur in various organizational settings, as long as it is related to new, market-related activity. In fact, Davidsson (2004) suggests that it makes sense to study the processes of emergence and use the venture idea itself as the unit of analysis (cf. Davidsson & Wiklund, 2001). New business ventures are in this delineation interpreted broadly, namely as: independent start-ups, new internal ventures or limited new market offers that are not necessarily entire “ventures”. The term “venture idea” is used instead of “opportunity” to describe an unproven market opening, whereas uncertainty makes it impossible to know if the opening is a profitable “opportunity” or not. However, in some specific cases it makes in fact sense to study “real opportunities” (cf. Davidsson, 2004). The idea of antecedents and outcomes on different levels of analysis reflects the fact that entrepreneurship may be studied on any level of analysis as long as antecedents on that level are explicitly related to discovery and exploitation of new venture ideas.

3.4. CHARACTERISTICS OF ENTREPRENEURIAL PROCESS MODELS

The challenge with previous process-related literature is that researchers have used different terminology to describe similar issues, depending on the aim and scope of their inquiry and their discipline of origin. For example, the venture creation process is generally referred to as the temporal sequence of events or activities that occur as entrepreneurs create a new business. Other terminologies with the same connotation include firm gestation (Reynolds & Miller, 1992), organizational emergence (Gartner, et al., 1992), pre-organization (Katz & Gartner, 1988), and start-up (Vesper, 1990). It is hopefully evident that entrepreneurial processes are multifaceted and interdisciplinary to their nature. As seen here, the largest challenge is not to draw conceptual models that describe these features, but to explore them empirically. This fact is highlighted, according to Liao and Welsh (2003), by the limited number of empirical studies that explicitly focus on the process of new venture creation, with the exception of Bhave (1994), Reynolds and Miller (1992), and Carter, et al. (1996). For example, Shane (2003) and Gartner (1985) have contributed considerably to the progress of
entrepreneurship research by presenting complex and multidisciplinary models which incorporate most areas of previous research.

However, the challenge remains to conceptualize such immense and rich process models. Consequently, the following sections briefly discuss the basics of previous attempts to conceptualize entrepreneurial processes. Overall, a considerable number of process models were identified in the literature review. These models either focused on a particular discipline or on a multidisciplinary scope, some of them focused on a specific stage of process and others more on the aggregate level of the process. Nevertheless, most models contributed in one way or another to one of the major schools of process-related research. These models will now be examined in more depth. First, process models focusing on entrepreneurial opportunities are presented, and after that process models focusing on new venture creation are set out. Subsequently, two additional process models are introduced which derive from outside the field of entrepreneurship but are seen as potentially relevant for this study.

As mentioned above, the literature review underlying this theoretical framework commenced from a pre-review including some 600 articles, conference proceedings, book chapters or other academic publications. Eventually, a more detailed review included some 100 publications, which the author read and has referred to in the preceding chapter. Although the aim of the literature review was the utmost accuracy, it is unfortunately possible that the review has omitted some major contribution associated with entrepreneurial processes. Similarly, it is possible, perhaps even more than likely, that the tables in Appendix 1 and the presentation below do not include all the available process models. Nevertheless, the belief is that the most significant ones are included among the 9 opportunity-based and 12 new-venture-creation-based process models. Overall, 20 models were identified since Bhave (1994) is listed both as an opportunity-based and new-venture-creation-based model.

3.4.1. Process models focusing on entrepreneurial opportunities

As explained in the previous subsection, models that focus on the emergence of a new economic activity are not necessarily in relation to the emergence of new organizations. As can be seen in the table presented in Appendix 1, Long and McMullan (1984) were among the first to map the (1) new venture opportunity identification process. Their underlying assumption is that social, cultural and personal factors lead to the identification of the field of opportunity (initial vision). Thereafter, this initial vision is evaluated and refined until the entrepreneur has an opportunity or not (elaborated vision). Then the entrepreneur makes a decision regarding whether or not to proceed with the vision. The objective of the elaboration is to develop the idea to the point where anticipated problems are overcome and potential benefits are maximised. Different people may undertake different elaboration strategies, which involves the interplay of accessible resources and new venture possibilities. In a similar way, Campbell (1992) offers a decision theory model for entrepreneurial acts, which describes self-employment via new venture creation. Consequently, the new venture may refer to the creation of a new firm, production of a new product or use of new technology or introduction of a new organizational form. This model relies on a more
traditional allocative process view and ignores the influence of an entrepreneur’s previous education and experience.

Herron and Sapienza (1992) have set out a model focusing on the entrepreneur and the *initiation of new venture launch activities*. Accordingly, they stress that entrepreneurial aspiration is influenced by values, context and personality traits as well as skills (based on aptitude and training). These in turn influence the entrepreneurial search behaviour, both related to the discovery (industry context and strategy) and also equilibrium estimation (contributions-inducements). Good opportunities (subjective) lead eventually to launch activities directed at developing organizational structure in accordance with industry context and strategy. Moreover, in his seminal article, Bhave (1994) presents a model of opportunity recognition sequences in entrepreneurial venture creation, which is one of the few process models developed from empirical research. According to the first part of the model, as shown in Figure 5, the venture creation process contains either internally or externally stimulated opportunity recognition.

![Figure 5 Opportunity recognition sequences in entrepreneurial venture creation](source: Bhave (1994:229))

Eventually, both of these processes culminate in a commitment to physical creation, when the products or services based on it are sold to customers on the market. More precisely, the model assists in identifying conceptually significant categories and sub processes associated with opportunity recognition. Bhave (1994) was among the first to attempt to describe what entrepreneurs actually do through the process of opportunity recognition and launching a new venture. Although his study is based on a small sample, it provides a richness of ideas to test in more broadly-based studies (Davidsson & Wiklund, 2001). The second part of the model describes commitment to venture creation and is presented in section 2.4.2 below.

Fiet (1996) presents an *informational basis of entrepreneurial discovery*, which is based on the logic that the process of discovering new opportunities consists of the acquisition of specific, risk-reducing information. This is intended in the sense that uncertain returns from such investments deter some would-be entrepreneurs from
making discoveries. Consequently, Fiet (1996) argues that this approach suggests that the vision to make entrepreneurial discoveries depends on making cost-effective informational investments, not on specific talents possessed by a limited number of individuals. Fiet et al. (2005) examine how entrepreneurs can seek discoveries deliberately. They use “consideration sets” to impose constraints on how and where they search. A consideration set is a promising set of information channels which entrepreneurs can select and search through based on prior knowledge. In a similar manner, in their highly influential contribution, Shane and Venkataraman (2000) refer to entrepreneurial discovery when they argue that entrepreneurship research should engage in the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them.

Accordingly, Shane (2003) presents a conceptual model for entrepreneurship research based on the individual-opportunity nexus model, which is built on the assumption that both individual attributes (psychological and demographic factors) and the environment (industry & macro-environment) influence the flow of the entrepreneurial process. As shown in Figure 6, the process begins with opportunity discovery and subsequent development, and is followed with the decision to exploit and execution of the venture idea (resource assembly, organizational design and strategy).

![Figure 6: A model of the entrepreneurial process](image)

Source: Shane (2003:11)

According to Shane (2003), the consequent process is not necessarily expected to involve new firm formation, since entrepreneurial processes may also take place in other economic settings, even outside traditional organizational boundaries. Moreover, the entrepreneurial process is embodied with heterogeneity and thus presumes disequilibrium (cf. Eckhardt & Shane, 2003). In addition, Sarasvathy et al. (2003) have built a testable typology of entrepreneurial opportunity as an extension of Shane and Venkataraman’s (2000) conceptual definition.

In line with conclusions made by Busenitz (1996), Gaglio and Katz (2001) put forth a model based on alertness and the opportunity identification process which proposes a psychological basis for opportunity identification. They claim that opportunity
identification is a unique entrepreneurial cognitive behaviour, the processes and
dynamics of which still remain mysterious. Entrepreneurial alertness refers to a
distinctive set of perceptual and information processing skills which are the cognitive
engine that drives the opportunity identification process. The basic idea is that alert
individuates, unlike most market actors, can be asumed to be more sensitive to early
indicators of market disequilibrium, more sensitive to the profit potential of ideas and
events, and more likely to break the existing means-ends framework. Similarly,
Ardichvili et al. (2003) propose a theory for the **entrepreneurial opportunity
identification and development process**. They identify personality traits, social
networks, and prior knowledge as antecedents of entrepreneurial alertness to business
opportunities. Entrepreneurial alertness is a necessary condition for the success of
opportunity identification (recognition, development, and evaluation), which may result
either in an abortion, venture formation or subsequent business.

Furthermore, rather differently from other entrepreneurial opportunity-based process
models, Sarasvathy (2001) and Lumpkin, Hill and Shrader (2001), amongst others,
suggest that entrepreneurial processes may progress via creative activities. Sarasvathy
(2001) presents differences between causation (predicting effects) and effectuation
processes (control of given means or tools). In an effectuation process, the entrepreneur
makes decisions based on affordable losses (acceptable risks), whereas in causation
processes, decisions are fundamentally made based on expected returns. More
concretely, Lumpkin et al. (2001) present a **creativity-based model of entrepreneurial
opportunity recognition**. Their model is built on the following elements: preparation
(conscious or subconscious immersion in problem(s); incubation (subconsciously
mulling things over); insight (“aha” experiences interspersed with incubation,
evaluation, and elaboration); evaluation (consciously deciding whether insight is
valuable and worth pursuing) and elaboration (the process of actualizing the creative
insight). The assumption is that that entrepreneurial creativity may stimulate either
deliberate or unintended preparation of entrepreneurial opportunities, which in turn
might result in an insight (eureka experience, problem solved or idea shared) and
subsequent evaluation and elaboration.

**3.4.2. Process models focusing on new venture creation**

As explained previously, models that focus on **new venture creation** commonly
emphasize the emergence of new organizations. The origins of such models derive from
organization and management research (e.g. Webster, 1976; Gartner, 1985; Moore,
1986), as well as, psychology (e.g. Bird & Jelinek, 1988) and sociology (Hansen &
Allen, 1992; Gnyawali & Fogel, 1994).

As present in the table in *Appendix I*, Webster (1976) was among the first to present a
process model based on the behavioural pattern of the individual entrepreneur in new
venture construction. The model of **new venture initiation** is based on the discourse on
rapacity (greediness) and the independent entrepreneurs as well as their interplay with
venture vulnerability. The process begins with pre-venturing activities and develops via
rapacious acting (greediness and selfishness). A critical moment determines the failure
or success of certain types of ventures. This moment is defined as the period of time
from the instant that subordinate principals are caught by surprise until discovering
themselves on the brink of participating in an unfavourable change. If the outcome is favourable for the entrepreneur, the critical moment is followed by a knothole, which incorporates a network of elements that assures a favourable outcome for the venture (e.g. product introduction and product acceptance by distributors/dealers and end-users). Consequently, venture vulnerability is assumed to evolve and decrease during the process. At the initiation, vulnerability is particularly high due to the lack of tangible resources and dependency on the entrepreneur’s ability to negotiate, but throughout the progression vulnerability becomes more predictable. More recently, various literature sources refer to Gartner (1985; 1988) and Gartner et al. (1992) as seminal contributors to the development of new venture creation process models (e.g. Bruyat & Fayolle, 2002; Davidsson, 2003). Accordingly, Gartner (1985) presents a **new venture creation model**, which assumes that entrepreneurship is the creation or emergence of new organizations (Gartner, 1985; 1993). As can be seen in Figure 7, the model describes the creation of new ventures across four dimensions: **individual(s)**, the person(s) involved in starting a new organization; **organization**, the kind of firm that is started; **environment**, the situation surrounding and influencing the new organization; and **new venture process**, the actions undertaken by the individual(s) to start the venture.

![A framework for describing new venture creation](image)

**Figure 7**  A framework for describing new venture creation

Similarly, Moore (1986) presents an **entrepreneurial process model** that focuses on new venture creation. The entrepreneurial process possesses the following elements: innovation, implementation and growth, which are influenced by the characteristics of the entrepreneur, the innovation and the organization as well as the surrounding environment. Bygrave (1989a; 1993) has developed a more sophisticated model from that introduced by Moore (1986). In this, the entrepreneurial process is built on a cycle of four activities: innovation, a triggering event, implementation and growth. During the cycle, different variables interact with the environment, which influences the entrepreneurial process. During the innovation phase, personal characteristics (e.g. risk taking, experience etc.) interact with environmental forces such as opportunities. The interaction between the environment and individual, organizational or sociological variables defines the possible path or outcome of each specific entrepreneurial event. In a similar fashion, Greenberger and Sexton (1988) argue for an **interactive model of new venture creation**, which relies on interaction among a number of personal and social features. The underlying assumption is that new venture creation is an interactive process in which personal characteristics (including personality) interact with an interpretation of salient events in the environment. Eventually, this interaction influences decisions concerning new venture creation.
Moreover, in the model of organization formation, Learned (1992) argues that not all individuals have the potential to found organizations, and that, of those who do, not all try it or succeed in the attempt. Consequently, three dimensions to organization formation are proposed: propensity to found, intention to found, and sense making. The assumption is that these three dimensions lead to the decision to found the venture, or to abandon the attempt. On the other hand, Starr and Fonds (1992) propose a model of entrepreneurial socialization and organization formation in which they apply theories of organizational socialisation to characterize the aspiring entrepreneur’s journey from neophyte to firm founder and to identify factors that may influence the transition from a pre-organization to the formation of a new organization. Three factors determine the transition into the entrepreneurial role: motivation bases for adaptation, socializing agents and the structural context of the entrepreneurial setting. The outcome is organization formation, survival or discontinuance of the venture. Likewise, Hansen and Allen (1992) take the environment into consideration when referring to the creation corridor: environmental load and pre-organization information-processing ability. According to this, the likelihood of new organization creation is influenced by pre-organization information processing ability, which in turn is dependant on available information (load and diversity) and pre-organization (size, interconnectivity and frequency).

In addition, Van der Werf (1993) stresses that new industries are particularly favourable for new venture creation. In his model of venture creation in new industries, the intentionality of potential entrants is influenced by the attractiveness of the industry, the ability of individual ventures to compete and the required technical effort. The attractiveness of an industry increases with functional capabilities and positive publicity, which in turn increases potential entrants. Existing companies in the industry are influenced by competition and market expansion, which in turn affects their financial performance and also the positive publicity about the industry. On the other hand, Larson and Starr (1993) offer a network model of organization formation, which focuses on dyads (contracting, expanding, culling) and the conversion of dyadic ties into socioeconomic exchanges (exploration and engagement). More specifically, they suggest layers of exchanges through multiple exchange processes, which include multiple functions, integration activities, and organizational and individual levels of exchanges. Consequently, the crystallization of networks determines new organizational formation.

Furthermore, Gnyawali and Fogel (1994) highlight the environments for entrepreneurship development and suggest that, apart from the entrepreneur, various environmental factors influence firm formation and organization. In this sense, governmental institutions influence the market conditions and make them function effectively by removing conditions that create market imperfections and administrative stiffness. According to this argument, opportunity refers to the possibilities for new ventures to exist, and the existence of opportunities is influenced by government policies and procedures. The ability to enterprise (entrepreneurial & business skills) and propensity to enterprise (socio-economic factors) both influence the likelihood to enterprise and new venture creation, as do financial and non-financial assistance, too. Finally, Busenitz and Lau (1996) created a cross-cultural cognitive model of new venture creation. Their model relies on the social context (social mobility, ecological
niche and market conditions), cultural values (individualism, uncertainty avoidance, power distance, masculinity and time orientation) and personal variables (risk-taking, locus of control & achievement motivation) as influencing factors of cognition. The cognitive structure (schema: risk, control, start-up opportunity & benefits) and cognitive process (heuristics: availability, representation, overconfidence & anchoring) influence in turn the entrepreneurial start-up intention and venture creation decision.

As indicated in the previous section, Bhave’s (1994) process model of entrepreneurial venture creation is one of the few process models developed from empirical research. According to the second part of the model, as shown in Figure 8, the process continues from internally or externally stimulated opportunity recognition to identification of a business concept and commitment to venture creation. Thereafter, the process continues with setting up production, organization creation, product creation, linking with markets, and customer feedback. Moreover, to increase analytical convenience, the process is divided into the opportunity stage (business concept), technology setup and organization creation stage (production technology), and the exchange stage (product). The basic idea of the model is that entrepreneurs introduce differing amounts of novelty at each core variable during venture creation, and the varying amounts of novelty qualitatively distinguish one kind of entrepreneurship from the other.

Finally, rather differently to the previous models, Bird and Jelinek (1988) and Bird (1988) stress that entrepreneurial intentions are conceived of as a link between the entrepreneur as an individual and the context within which a venture is created. Consequently, they present a model of intentional action, which includes decisions that structures resources. The five aspects are: time, flexibility of focus, flexible behaviour, temporal agility, and interpersonal influence. More precisely, Bird (1988:442) defines entrepreneurial intentions as “entrepreneurs’ states of mind that direct attention, experience, and action toward a business concept, and set the form and direction of organizations at their inception”. According to Bird (1992), entrepreneurs’
timeframes for the birth and early development of new ventures offers a new lens for understanding the psychology and social construction of new organizations.

3.5. Summary of theoretical discussion

As presented in Chapter 1, the purpose of this study is to increase our understanding of design entrepreneurs as enactors of their own entrepreneurial careers and amplifiers of others new product development processes. Consequently, the preceding chapter introduced the elements and activities of entrepreneurial processes. In addition, the challenges with previous conceptual research were presented, along with the limited amount of previous empirical research. The following discussion assesses some of the relevant findings and positions from this study in accordance with previous research findings.

The identification or creation of venture ideas, assembly of resources and organizing are regarded as the fundamental elements of entrepreneurial processes. Rather than assuming that venture ideas are constant in time, this study examines how emerging ideas are adjusted to enable exploitation in dynamic market settings. This study builds on the insights from previous entrepreneurship process research: identified elements and activities originate from the disciplines of economics, psychology, sociology, and management. Therefore, the preceding theoretical discussion drew from multiple disciplinary sources, and introduced two major schools of entrepreneurial process theory. These schools are regarded as complimentary rather than mutually exclusive (cf. Davidsson, 2003). The preliminary conceptual framework is set out in Figure 9, and this will now be discussed more thoroughly. The interpretations from the theoretical discussion build on the assumption that activities and agents interact and that they are closely entwined with each other (e.g. McKelvie & Wiklund, 2004, Davidsson, 2005). This explanation challenges the common assumption that entrepreneurs first identify venture ideas and then exploit them. In the figure, the interaction is drawn as a cycle which encompasses business venture development. For instance, Bhave (1994) suggests that business concept identification and commitment to venture creation interact with each other.

In a similar manner to the conceptual model in Figure 9, it is possible to identify a certain pattern of progression in previous efforts to conceptualize entrepreneurial processes. Opportunity-based models focus more on the sources, identification or creation of venture ideas and the decision to exploit them, whereas behaviour-based models are more interested in the organizing of entrepreneurial processes, strategies and resource assembly. Analysing existing entrepreneurial opportunity and entrepreneurial behavioural models suggests that they generally address a number of activities during the process. As a result, it seems feasible to sort these entrepreneurial process models according to these activities as this will make the forthcoming empirical interpretation more straightforward. Nevertheless, it is important to recall that these categories are primarily conceptual.
Sources of Venture Ideas: Environment and Individuals

Identification and Creation

Development of a Business Venture

Exploitation

Outcomes

Market entry

Decision to exploit

Organizing, Strategies, and Resource Assembly

Figure 9  Preliminary conceptual process model

To begin with, opportunity-based process models capture underlying factors that influence identification of opportunities, for instance, personal characteristics and experience, entrepreneurial behaviour, and environmental factors. This first activity is similar to the feedback loops from outcomes to identification and creation, and exploitation in Figure 9 and is labelled “venture idea search”. The second activity captures development of initial opportunities into viable business opportunities. It is similar to the identification and creation, and the development of a business venture in the figure and is labelled “venture idea identification and development”. The third and final activity captures the decision to exploit and the subsequent exploitation towards creating, for instance, a firm, production of a product, or use of a new technology or a new organizational form. This is similar to the decision to exploit, exploitation and market entry in the figure and is labelled “venture idea exploitation”.

Similarly, it is feasible to sort previous behavioural process models into three different phases. Generally, such models emphasize new venture creation. The first identified activity, at least to some extent, the characteristics of the individual(s) and everything that takes place before a new venture is created, for instance, education, gathering of experience, or changes in the environment. It is somewhat similar to the feedback loops from outcomes to identification and creation, and exploitation in Figure 9 and is labelled “pre-venture”. The second activity captures the implementation or creation of a new venture. It is similar to exploitation and it is labelled “venture creation”. The third and final activity captures all activities taking place after the new venture is created, for instance, initial market success and growth. This section is similar to market entry and the outcomes in Figure 9 and is labelled “post-creation”. As a result, these kinds of categories enable sense making and identification of certain patterns in previous entrepreneurial process models, and, moreover, they allow me as the researcher to conduct a thorough and systematic analysis of complex and rich data. Although such a categorization is feasible for analysis purposes, it is important to recall that categories are bound to be entwined, since elements and activities interact. Therefore, these loosely-drawn conceptual boundaries overlap at least to some extent.

As pointed out, in this study the primary unit of analysis is the entrepreneurial process, which is influenced by the individual’s (or individuals’) behaviour and the surrounding
environment. Rather differently, existing *models of entrepreneurial opportunity identification* commonly focus on the individual entrepreneur as the unit of analysis. The only exception is the individual-opportunity model (Shane & Venkataraman, 2000; Shane, 2003), which addresses multiple units on different levels of analysis (i.e. individual, process, opportunity and environment). Nevertheless, this particular process model aims at stating a domain, and is not originally conceptualized for empirical investigation. On the other hand, such attempts have been presented by Eckhardt and Shane (2003) and Sarasvathy et al. (2003).

The *models of new venture creation* commonly focus both on the individual entrepreneur and the organization as the unit of analysis. The exemptions are the models presented by Greenberger and Sexton (1988) with only the individual as unit of analysis, and the model from Hansen and Allen (1992) with the organization as unit of analysis. Apart from these, Bird and Jelinek (1988) and Starr and Fondas (1992) focus primarily on the organization, but also on the individual, and Van der Werf’s (1993) model focus on the organizations and the industry. Then again, in Larson and Starr’s (1993) model, the network and the organization are units of analysis. In addition, the models from Gnyawali and Fogel (1994) and Busenitz and Lau (1996) have the environment, individuals and organizations as the units of analysis. Consequently, few models focus on the entrepreneurial process as the unit of analysis, as is the case here. The reason for focusing on the process is connected to the purpose of this study.

In this study, the assumption is that personal features and competence influence individual behaviour, which in turn is regarded as one of the major drivers of entrepreneurial processes. In addition, the assumption is that the environmental context influences, among other things, the emergence and existence of venture ideas, and decision-making as well as modes of exploitation, resource assembly and outcomes. Existing *models of entrepreneurial opportunity identification* have a diverse scope concerning the cycles and motors of change. Three of the models focus on entrepreneurial acts and some form of decision-making towards new venture creation (Herron & Sapienza, 1992; Campbell, 1992; Bhave, 1994), two on entrepreneurial alertness based on personality traits and prior knowledge (Gaglio & Katz, 2001), and one on social networks (Ardichvili, Cardozo & Ray, 2003). In addition, two of the models focus on entrepreneurial opportunity discovery and acquisition of information (Fiet, 1996; Shane & Venkataraman, 2000), and two on entrepreneurial creativity (Sarasvathy, 2001, Lumpkin, Hill & Shrader, 2001).

The models of *new venture creation* show significant differences regarding the cycles and motors of change. Nevertheless, entrepreneurial behaviour in new venture creation seems to be the dominating cycle and motor of change (Gartner, 1985; Bird & Jelinek, 1988; Learned, 1992; Hansen & Allen, 1992, Van der Werf, 1993) as well as personal and organizational characteristics (Webster, 1976; Moore, 1986; Greenberger & Sexton, 1988; Bygrave, 1989a, Starr & Fondas, 1992; Busenitz & Lau, 1996; Gnyawali & Fogel, 1994). In addition, the models introduced by Hansen and Allen (1992) and Gnyawali and Fogel (1994) emphasize the environment as the driving cycle and motor of change. Consequently, the drivers in this study broadly resemble those introduced in previous research. More precisely, these drivers are the individual behaviour and the influence of the environment on the entrepreneurial process. This study adopts as its fundamental assumption that the economy is characterized by both heterogeneity and
uncertainty, which suggest that the **modes of change** along the process are primarily constructive (cf. Van de Ven & Poole, 1995). In line with this, individuals and organizations are faced with different venture ideas and have different understandings of what is a successful or acceptable outcome. In practice, the modes of change are associated with the progression of the entrepreneurial process, from identification or creation of venture ideas, through decision-making and selection of modes to exploit to resource assembly and initial outcomes.

The *entrepreneurial opportunity models* show a great variance in the mode of change. For instance, Herron and Sapienza (1992) suggest that an individual’s dissatisfaction is influenced by their aspiration. Consequently, good opportunities eventually lead to launch activities, which are directed at developing organizational structure in accordance with industry context and strategy. Further, Campbell (1992) relies on the creation of a firm, production of a new product or use of new technology or new organizational form. Fiet (1996) builds on investments in information, signal of venture opportunity, information channel, security arrangements, roles of the individual and discovery. In line with this, Shane and Venkataraman (2000) focus on opportunity discovery, decision to exploit and execution, whereas Gaglio and Katz (2001) refer to alertness, ignorance, and discount.

In a similar fashion, Ardichvili, Cardozo and Ray (2003) also refer to entrepreneurial alertness, which influences the core process and leads to abortion, venture formation or subsequent business. Sarasvathy (2001) takes a set of means as given and focuses on selecting between possible effects that can be created with that set of means. Lumpkin, Hill and Shrader (2001) build on the idea of preparation, incubation, insight, evaluation and elaboration. On the other hand, Bhave (1994) builds on the assumption of an iterative, nonlinear, feedback-driven, conceptual and physical process, which is in line with the assumptions of this study concerning the nature of the entrepreneurial process. Opportunity recognition is either internally or externally stimulated, and it is followed by a commitment to physical creation, set-up of production technology, and subsequently organization creation, product creation, linking with markets, and customer feedback (Bhave, 1994).

There is also great variance in the mode of change among the *new-venture-creation-based models*. To begin with, Webster (1976) introduces different stages of the process, and Gartner (1985) refers to the characteristics of the individual(s) starting the new venture, the organization which they create, the environment surrounding the new venture, and the process by which the new venture is started. Moore (1986) refers to the innovation and implementation that is influenced by the individual and environment. Greenberger and Sexton’s (1988) model refers to vision, personality and desire for control, and Bird and Jelinek’s (1988) builds on a flexible focus, structuring resources, temporal agility, influencing others and behavioural flexibility, which is assumed to influence the process of venture creation. Somewhat similarly, Learned (1992) builds on the propensity to found new ventures, the intention, sense making of the situation and decision to either found or abandon the new venture. According to Starr and Fondas (1992), organization formation is shaped by two stages: anticipatory socialization, and new entrepreneur socialization.
In addition, Hansen and Allen (1992) refer to information-possessing ability, pre-organizing and environmental load, which together form an interaction effect that influences the likelihood of new organization creation. On the other hand, Van der Werf (1993) suggests that the modes of change are characterized by a pool of potential entrants. Their intentionality is influenced by the attractiveness of industry, the ability of individual ventures to compete and technical effort. Larson and Starr (1993) focus on essential dyads (contracting, expanding, and culling) and the conversion of dyadic ties into socioeconomic exchanges (exploration and engagement). Gnyawali and Fogel (1994) refer somewhat differently from the others to opportunities. They claim that opportunities are possibilities for new ventures to exist, and their existence in turn is influenced by government policies and procedures. Finally, Busenitz and Lau (1996) build on the social context, cultural values, and personal variables, which they claim all influence cognition and the venture creation decision.

In conclusion, the theoretical discussion in the preceding chapter, and particularly the conceptual assessment set out here, suggest that a substantial amount of research focuses on relevant fields of inquiry for entrepreneurial process research. However, considerably few studies focus on the aggregate entrepreneurial process by incorporating concepts from multidisciplinary sources. Therefore, it is necessary to refer to a range of research contributions, which sometimes focus on different units of analysis, and addresses combinations of elements and phases of entrepreneurial processes. This kind of bundling of previous literature from multiple sources involves some evident research-related risks. For instance, theoretical models designed to explain some specific phenomena may be less suitable to explain similar phenomena under different circumstances, for instance, on another level or phase of an entrepreneurial process. The application of a multidisciplinary approach is validated by building on recent conceptual contributions from within the field of entrepreneurship process research (e.g. Busenitz et al., 2003; Van der Veen & Wakkee, 2002; Shane, 2003; Sciascia & De Vita, 2004; Johannisson, 2005). Due to the current state of the specific research field, the framework presented here captures some of the essential findings. However, the field still lacks an overarching durability, where the interplay between different concepts is properly validated in empirical research. Nevertheless, previous theoretical contributions and the limited number of empirical studies suggest that future process-related research needs to consider and build more aggregately on the theoretical constructs presented in this chapter. Until recently, empirical research on opportunities and entrepreneurial processes has been almost non-existent.

The challenge of the following chapters will be to explain the applicability of these theoretical concepts when explaining the interaction between activities and agents in emerging venture ideas. More precisely, the following Chapter 4 introduces the reader to the research methods, the following Chapters 5 and 6 analyse the empirical material, and the final Chapters 7 and 8 bring together research findings and put forth both theoretical and empirical conclusions.
4 RESEARCH METHODS

The purpose of this chapter is to describe the research methodology applied in this study. The preceding part of the dissertation aimed at introducing the reader to the research subject, by outlining the specific research problem in Chapter 1, by putting forth a short outline of design entrepreneurship literature in Chapter 2, and a more thorough theoretical discussion concerning entrepreneurial process related research in Chapter 3. This chapter commences by introducing the selected research approach that underlies this study (4.1). Next, it is important to position the researcher (4.2), since this will influence the flow and results that derive from process-related research. This is followed by a more thorough presentation of the research process, including descriptions of respondent selection and data interpretation (4.3). The chapter ends with a reflection of the interpretations made by the researcher (4.4).

4.1. AN INTERPRETIVE RESEARCH APPROACH

In this study, I examined entrepreneurship as an observable social reality. Previous research describes entrepreneurial processes as context dependant, complex and multifaceted phenomena. The aim was not to explain entrepreneurial processes based on definite research outcomes but to increase the understanding of such processes in the given research context (cf. Arbnor & Bjerke, 1997). This study applied an interpretive view as its overall research philosophy. This led to an explorative study being carried out, which aimed at theory building. The selected research approach presented some considerable limitations for wide-ranging generalisation based on the research findings.

Regarding the philosophical standpoint applied in this study, Burrell and Morgan (1979) emphasize that social theory could be usefully analyzed in terms of four broad ‘world views’. As shown in Figure 10, each of these paradigms (functional socialism, interpretive socialism, radical humanism, and radical structuralism) represents their own school of thought and is different in their approaches and perspectives. However, they share some common fundamental assumptions regarding the nature of the social reality that they address. For this study the relevant dimension is the sociology of regulation, which refers to theorists who are primarily concerned with providing explanations of society in terms that emphasize its underlying unity and cohesiveness.

In this study, the future outcome of entrepreneurial processes was not regarded only as unknown, but also as unknowable (e.g. Sarasvathy, 2001). Uncertainty derived from the fact that it is impossible to know in advance the outcomes from identified venture ideas (Knight, 1921). In addition, heterogeneity derived from the surrounding environment in addition to the multitude of relationships between elements and activities in entrepreneurial processes. Due to these factors and the associated complexity, it was not possible to make a wide-ranging future prognosis for definite process outcomes. The assumption was that entrepreneurial processes are at least to some extent steered by the vision and creativity of the involved entrepreneurial individuals. In that sense, I saw entrepreneurial processes as emergent and created by the individuals, but the progression was also influenced by the surrounding environment.
Consequently, as a researcher, I regarded the interpretive sociology approach as the most convenient when examining entrepreneurial processes in the context of industrial design. The selection of this approach was based on my view of the social world as having an uncertain ontological status. As a result, I assumed that it could potentially be dangerous to generalise research findings from studying entrepreneurial processes in specific contexts, or at best I found that it would have been challenging to stipulate the reasoning behind any abstractions or generalizations. The interpretive approach belongs to the hermeneutic tradition, which suggests that it is more essential to understand a phenomenon than to explain it.

Moreover, Alvesson and Sköldberg (2004) suggest that reflective research is characterised by careful interpretation and reflection. Accordingly, careful interpretation implied that all references to empirical data resulted from my interpretations of material that derived from interviews or observations. Consequently, the interpretations that I made had no unproblematic relation to anything outside the specific data. Instead, interpretation called for awareness of theoretical assumptions, the importance of language and pre-understanding, which all constituted major determinants for interpretation and for the creation of knowledge and further understanding. On the other hand, reflection turned attention inwards towards the personality of me as the researcher, as well as the relevant research community, society as a whole, intellectual and cultural traditions, and the central importance and problematic nature of language and narrative (the form of presentation) in the research context. According to Alvesson and Sköldberg (2004), systematic reflection on several levels can provide the interpretation with a quality that makes empirical research of value. Reflection is the interpretation of interpretation, and the launch of critical self-exploration of one’s own interpretations of empirical material (including construction). Reflection can mean that we consistently consider various basic dimensions behind and in the work of interpretation, by means of which this can be qualified. Alvesson and Sköldberg (2004) encourage the researcher to think about what the empirical material means, and why we make precisely these interpretations before forming any opinions of the reality as such.

A qualitative study was conducted for a number of reasons: First, the relations and potential interaction between some of the process elements and activities were not well understood in previous entrepreneurship research, or in association with design entrepreneurship. Entrepreneurship among industrial designers was a new and an unexplored field of research. Secondly, the assumption was that the present
understanding of entrepreneurial processes did not necessarily explain to the full extent the dynamics of market settings in this specific context, or the advancement of venture ideas over time. Thirdly, this study was aimed at developing the present understanding by examining and comparing the explanatory power of previous entrepreneurial process research in the given empirical context. Moreover, the interpretation and analysis of material related to the elements and activities were assumed to provide a good understanding of how entrepreneurial processes progress. This approach permitted control of potential interaction between contextual elements, and it also alerted one about unexpected disparities between the conceptual and examined context. Consequently, the analysis was set out to find answers in relation to the theoretical and empirical perception of the interaction between activities and agents related to the emergence of venture ideas. Entrepreneurial processes were examined from two major viewpoints of design entrepreneurship: (1) provision of industrial design services; and (2) design of own products. In addition, some design entrepreneurs combined both services and their own product design, or were planning to do so in the future.

4.2. THE ROLE OF THE RESEARCHER

In line with a reflective research approach it is important to clarify the pre-understanding and also the role of the researcher in the research process. As stated by Alvesson and Sköldberg (2004), the pre-understanding determines interpretations and representations of the object of the study. A researcher should be aware of this pre-understanding when developing an understanding of a particular phenomenon that is being examined.

Consequently, as a researcher, it was assumed that I would establish an interpretation of the obtained insights, based on my pre-understanding and beliefs in an underlying pattern of order. In the previous sub-section, my aim was to clarify the latter, and in Section 1.5 I unwrapped some of my pre-understanding relevant for this study. However, it is important to realize that it is challenging to recall pre-understanding (Alvesson & Sköldberg, 2004). In 1.5, I claimed to have had only a limited previous knowledge of entrepreneurship in association with industrial design before starting this research process. In fact, my understanding of entrepreneurship in the given research context grew during the research process via the processes of constructing and interpreting data. Although the learning process enabled me to increase my knowledge and understanding, it also involved evident risks for a drift in the research focus due to the lack of a solid pre-understanding of design entrepreneurship.

Following this, Alvesson and Sköldberg (2004) suggest that there is a need for a systematic reflection in social science contexts. In order to create knowledge, serious attention should be paid to the way different kinds of linguistic, social, political and theoretical elements are woven together in the process of knowledge development, during which empirical material is constructed, interpreted and written. Accordingly, as a researcher, I engaged myself in setting up and eventually implementing methodologies and techniques that I found suitable for this research procedure. Moreover, by following the guidelines of Alvesson and Sköldberg (2004), I believed that studying suitable experts from this field would provide an important basis for knowledge generation. Following this logic, I decided to conduct an industrial analysis and to collect data from
a number of design entrepreneurs and external actors. My aim was not to achieve complete truths regarding the examined phenomenon, but rather to increase my understanding of the specific context and procedures. I did not assume that the elements and activities associated with the investigated entrepreneurial processes existed in any concrete sense. Instead, they were seen as products of the subjective and inter-subjective experiences of the respondents, as well as mine, as the researcher who interpreted these experiences (Morgan, 1980:608). My role was not only to be a mere observer since I needed to make reflections from the position of a participant in action. More precisely, I attempted to understand the processes through which shared multiple realities arose, were sustained, and changed (Morgan, 1980). As a result, the selected research approach supported the belief in an underlying pattern of order in the examined social world, but did not support the struggle for a general, objective social science (Morgan, 1980). In practice, this implied that knowledge that derives from this and other scientific studies should be seen as being as problematic as the common-sense knowledge in everyday life. It was possible to identify certain patterns, but as suggested above, the related uncertainty and heterogeneity made generalization challenging.

I found it particularly important to become aware of the political-ideological character of the examined field of empirical research, since it would increase my context specific understanding and ability to make proper interpretations. As stated by Alvesson and Sköldberg (2004), social science is a social phenomenon embedded in a political and ethical context. In that sense, I realized that what was explored would to some extent support (reproduce) or challenge present social conditions. Consequently, my choices regarding how the reality was represented and interpreted had an immediate influence on how the phenomenon was represented in the study. As stated in Section 1.3, this study is primarily limited to examining the economic and business-related conditions of entrepreneurial processes associated with industrial design. In that sense, my particular social interest and rationalistic assumption steered the selection of respondents, what was asked and what was not asked from them, as well as how their response was interpreted. Similarly, the respondents’ own social interests, assumptions and notions steered their reactions and ways of responding to the questions that I asked them. They may have intentionally or unintentionally answered questions based on how they expected that they were supposed to answer. It was my responsibility as the interpreter to strive for truthfulness and to capture underlying meanings associated with the data.

Consequently, I realized from the very beginning of the research process that my interpretations and theoretical assumptions were by no means neutral, but they were a part of the underlying political and ideological conditions of this study. In that sense, as a researcher, I tried constantly to be aware of the primacy of interpretation, my role as an interpreter, and remember that all research includes and is driven by an interpreter. In my role as an interpreter, I interacted and contemplated issues continuously with other interpreters (the people studied). Therefore, my underlying assumption was that I was not the only one who made interpretations. The interviewed respondents also made their own interpretations of the surrounding world order based on their own assumptions and notions. As shown in Figure 11, I constructed the data and was responsible for interpreting the implication of each respondent’s interpretation of their respective reality in the studied context. It was naturally challenging, and to some extent risky, to make wide-ranging interpretations based on underlying meanings of interpretations made in
the first place by others. In order to minimize misinterpretations, I let the respondents proofread and comment upon the constructed data before drawing any final conclusions.

Interpreting and combining insights from different actors allowed a certain kind of triangulation of individual interpretations and also the contrasting of these with the theoretical framework. However, I realized that I had a particularly great responsibility as the interpreter when establishing a joint understanding of the examined social reality. Hence, the respondents were not always referring to the exact same social phenomenon. Instead, they referred to certain assumptions and notions that were related to situations that were regarded by me as similar and comparable across respondents. This freedom taken by me as the interpreter was necessary due the practical limitations of this study. In addition, this kind of comparison across respondents enabled sense-making out of the rich set of data. Simultaneously, it potentially made the interpretations less consistent, since I was sometimes forced to construct, interpret and reflect upon data by bringing together insights from similar, but to some extent different, social contexts. Therefore, it is important to realize the important and crucial role of me as the interpreter, and that the research outcome is just one interpretation made by me at a specific point in time.

My aim was to build and refine extant theory through interpreting the interpretations of others. Consequently, I was responsible throughout the research process for ensuring that the respondents’ interpretations and my own interpretations reflected the examined reality as well as possible. I had a deeper and broader insight into the data and the research outcome than the reader or the respondents (e.g. Abnor & Bjerke, 1997). Therefore, I found it particularly important to report as truthfully as possible on the flow and major decisions (put forth below in 4.3) which were made during the process (Alvesson & Sköldberg, 2004). It was naturally impossible to fully control the influence of my assumptions and notions concerning the research objects. My pre-understanding was also influenced by insights from experts in the field, who also helped to select and contact suitable participants and to some extent interpret research findings.
4.3. DATA CONSTRUCTION AND INTERPRETATION

As explained above, this study built on several decisions that I made in the role of the interpreter during the research process. The major decisions indicated a change in the research direction, from theory building to construction and interpretation of empirical data. In addition, the research process in itself involved a myriad of smaller decisions that I made either consciously or unconsciously. This section aims at elaborating in a reflective manner on different choices that were made or were left undone during the research process. According to Langley (1999), the task of analysing process data is messy and making sense of them is a constant challenge. Consequently, I needed some means to interpret the collected data and to transform these into a more specific theoretical understanding which did not betray the richness, dynamism, and complexity of the data. In that sense, my aim was to make the data understandable and potentially usable to others (Langley, 1999). Encouraged by Alvesson and Sköldberg (2004), I decided to implement their initiative concerning a more systematic reflection in social science contexts. In line with this decision, the research process contained the interaction between the following three levels of interpretation: construction of data, interpretation of findings including a critical interpretation, and reflection.

More precisely, data construction refers to the collection of data primarily by interviewing design entrepreneurs and external actors. The construction of data implied a multiplicity in interpretation and consideration of pluralism when looking at different aspects within the data. My aim was to look for unpredicted elements in the empirical material associated with individual respondents. Then I favoured certain preliminary interpretations over others, which were in line with the aim and scope of this study (Alvesson & Sköldberg, 2004). Interpretation of findings refers to the negation of data-confirming interpretations (radically different view of reality) made in association with data construction. The aim was to develop and reshape theoretical ideas. In other words it became important to consider why certain interpretations dominated and what other interpretations could have been made based on the data. A specific critical interpretation ensured that ideologies, power, and social reproduction associated with the examined social phenomenon were considered. Reflection refers to the self-critical and linguistic reflection on elements of dominance in my line line(s) of interpretation. It was essential for me to identify and critically reflect on potentially problematic forms of authority, as well as to be open to other representations, interpretations and conclusions than those I favoured initially. In addition, I tried to manage text production and language usage to avoid the decoupling of data from the original authors.

4.3.1. Initiating the research process

In selecting an appropriate research approach, I was guided by the extent to which entrepreneurial process theory was clear at the beginning of the research endeavour. The general assumption is that researchers select between two distinct techniques, namely inductive and deductive approaches, to observe the relation between theory and data (e.g. Langley, 1999). Following this, I could have started from developing theory based on previous research and designing a research strategy to test hypotheses (deduction), or collect data and develop theory based on data analysis (induction). However, both approaches may have their limitations as techniques in the process of generating ideas
(e.g. Kirkeby, 1994). In that sense, testing the somewhat limited findings from previous research would potentially have provided some insights on the (in)applicability of their explanatory power in this social context. However, such an approach would not have assisted extensively in developing my understanding of the special features of entrepreneurial processes in this particular social context. The assumption was that it would not have made sense to solely test findings that derive from existing theories, based on some of the criticism towards the present conceptualizations (Described in chapter 3).

On the other hand, applying a strictly inductive strategy would have enabled me to draw together a fresh understanding of the examined phenomena without the restrictions of findings from previous research. Such an approach could have been fruitful for developing entirely new theories in order to explain the special features of design entrepreneurship. Then, I could have compared the findings in retrospect with those captured in previous research. However, I considered that it would not have made sense to ignore previous attempts to describe entrepreneurial processes, nor would it have been easy to completely forget my own pre-understanding. Instead, I found it valuable to build broadly on previous research attempts and allow them to guide the research process to some extent. I tried to read as widely and liberally as possible before entering the field.

As presented in Chapter 3, there are a myriad of entrepreneurial process models, but few of them have been assessed or validated empirically. Previous researchers tend to generate their own descriptions of the phenomena, rather than to build on previous attempts to conceptualize entrepreneurial processes. Here, I wanted to contribute to and make sense of previous attempts, but simultaneously I realized the potential limitations of previous research and the special conditions of this particular research context. As a result, it was not possible to clearly distinguish this study as either deductive or inductive. Instead, I chose to combine these two approaches within the same study, since it was assumed to enhance the understanding of entrepreneurial processes associated with design entrepreneurs (i.e. the abductive approach). Some researchers refer to an “abductive” research approach, an approach which implies that theory and data are worked with side by side (e.g. Lundberg, 2000). For instance, case studies that aim at theory building commonly repeatedly use both empirical data and existing theory. The research approach allows a more central role for empirical research because ideas are generated from a dynamic relationship between theory and data. In that sense, the application of an abductive interpretation directed me from design-entrepreneur-specific findings toward a more conceptual movement within, and to some extent outside, the investigated empirical context. Consequently, the decision was made to allow the research process to move in a logical pattern between theory development, data collection and interpretation of empirical findings (cf. Davidsson, 2004:xi). Therefore, I planned ahead and took several measures before initiating the collecting and analysing of field-related data. For instance, in order to avoid drifting, I felt it safer to preset the broad frame of reference discussed above, and to conduct an industry-specific literature analysis before entering the field.

The decision was made to examine entrepreneurship within the industrial design sector, since entrepreneurial processes were considered to be particularly observable in this specific field (Eisenhardt, 1989; Yin, 1989). Amongst other points, industrial designers
could be characterized as creative individuals, who commonly operate as self-employed workers, at least at some time during their working careers. In addition, design entrepreneurship was a new and unexplored research venue in extant entrepreneurship research.

4.3.2. Entering the field and collecting the data

Due to some challenges in locating nascent and recently self-employed industrial designers, I eventually decided in spring 2005 to contact the board of the Finnish Association of Designers (hereinafter: Ornamo). I asked the board to help me in selecting suitable candidates by providing contact details for industrial designers who were just about to, or had recently, become self-employed or had founded a new business. Although the chairman of the board, Mr. Kristian Keinänen, was highly cooperative, it became clear that Ornamo’s membership information was not detailed enough to point out intentions or recent decisions regarding self-employment. Instead, I turned to the management of the Institute for Art, Development and Education (IADE) in Helsinki. In 2005-2006, IADE offered an educational programme called Design Business Network (DBN), which aimed at enhancing the business skills of nascent and progressing industrial design entrepreneurs. After discussion with the programme director, Mrs. Eeva Mäkinen, and the course lecturer, Mr. Niku Oravainen, I made the decision to select respondents from among their programme participants. I realized that selecting design entrepreneurs from outside of the scope of the programme could have influenced the research outcome, but I decided to limit the selection due to the previous challenges in finding suitable candidates for the study.

Consequently, I asked the programme director to provide a list of all participants in the two different programme tracks (Design Entrepreneurship and The Development Programme for Design Entrepreneurship). In addition, I asked the director to point out potential respondents, after explaining in detail my research requirements. Overall, the two programmes had 38 participants, of which the director suggested nine as being the most suitable for this study. In addition, the director sent an e-mail to all programme participants, which included a recommendation to accept research participation if they were personally contacted by me. As a conclusion, I made my own selection after carefully examining available data on each of the 38 participants. My selection contained six of the nine recommended participants, and seven additional ones selected from the total of 38. The reason for omitting three of those suggested was that their businesses were past the start-up phase in two of the cases, and in one of the cases the created venture was a new sister company. Instead of trying to identify representative design entrepreneurs, my aim was to locate respondents that were versatile and interesting as research objects in the light of the phenomenon being studied (Abnor & Bjerke, 1997). This decision was intended to generate richer data with relation to the research problem. For instance, the selected design entrepreneurs’ represented slightly different lines of business and business development, and they were of different age and had somewhat different backgrounds. The advantage was that they did not make their interpretations based on conventional understanding of how the reality was constructed. On the contrary, the disadvantage was that they described the reality in a certain way, based perhaps partially on their assumptions of how the reality was constructed.
Nevertheless, they all were carefully selected based on their association with design entrepreneurship.

Eventually, each of the 13 potential candidates received a formal invitation by e-mail to participate in the research. The invitation was re-sent by me to six persons after one week because they had not replied. Overall, nine persons responded, indicating their willingness to participate, which was one more than originally anticipated. I asked these persons to answer a short open-ended e-mail survey, regarding their entrepreneurial status and future career expectations (Appendix 2). After receiving answers from all of them, I decided to exclude one, due to his recent graduation and ongoing search for a future career direction. An overview of all interviews is set forth in Appendix 5. In addition, the respondents’ entrepreneurial processes are set forth in table format in Appendix 6. This is done to increase the insight and overall comparability, and to support the analysis work in the Section 7.1.

Table 2  Design entrepreneurs previous education, professional experiences and line of business

<table>
<thead>
<tr>
<th></th>
<th>Education</th>
<th>Work Experience</th>
<th>Line of Business</th>
<th>Business Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Artisan woodcrafter and Industrial Designer (B.Sc.)</td>
<td>Various mainly not related to design. Work practice in design tasks.</td>
<td>Industrial Design</td>
<td>Self-employed since autumn 2005. Currently, setting up the business from a home office. Has informed the taxman of self-employment.</td>
</tr>
<tr>
<td>B</td>
<td>Artisan (B.Sc.) and Industrial Designer (B.Sc.)</td>
<td>Has twice initiated business ventures, one related to design. Worked mainly via practice within the field.</td>
<td>Industrial Design</td>
<td>Graduated in spring 2006 and is about to set up an own business.</td>
</tr>
<tr>
<td>C</td>
<td>Designer and Industrial Designer (M.Sc.)</td>
<td>Worked previously as a design assistant, freelancer and design manager in an international design company.</td>
<td>Industrial Design</td>
<td>Freelancer with a trade name.</td>
</tr>
<tr>
<td>D</td>
<td>Textile technician and Industrial Designer</td>
<td>35 years of experience as employer and self-employed within textile and fur industry.</td>
<td>Clothing and Textile Design</td>
<td>Started the first business in 1986 and the second in 2000 (Ltd.). Currently focus on international business growth.</td>
</tr>
<tr>
<td>E</td>
<td>Sports Massager, Physiotherapist and Industrial Designer (B.Sc.)</td>
<td>A few years as a massager and physiotherapist .</td>
<td>Industrial and Furniture Design</td>
<td>Has a business name, which is not reg. trade name yet. Currently, many projects going on, which will eventually become the foundation for business.</td>
</tr>
<tr>
<td>F</td>
<td>International Trade and Marketing (B.Sc.) and Industrial Designer (B.Sc.)</td>
<td>Various from work practice during studies and previous Interior design shop owner (one year experience).</td>
<td>Interior and Furniture Design</td>
<td>Recently quit the shop and is currently reframing the business idea.</td>
</tr>
<tr>
<td>G</td>
<td>Construction Drawer, Marketing studies institute level, Lahti and Industrial Designer (M.Sc.)</td>
<td>Construction drawer (1 year), Advertising (10 years).</td>
<td>Industrial, Interior and Furniture Design</td>
<td>Operates his business with a trade name. Both volume sales (externalized process) and artefacts.</td>
</tr>
<tr>
<td>H</td>
<td>University studies in Philosophy and Aeroplane Pilot</td>
<td>Started recently as a pilot.</td>
<td>Industrial Design</td>
<td>Does not have a registered trade name. Currently, focus on making model drawings and eventually finding financing for the first prototype.</td>
</tr>
</tbody>
</table>

Due to the sensitive status of the design entrepreneurs’ state of affairs, and confidential nature of the collected data, some of the design entrepreneurs wanted to preserve their
anonymity. Therefore, I referred to each design entrepreneur with a letter reaching from A to H. As can be seen in Table 2, the respondents represent slightly different lines of business and development phases. The age of the respondents varied between 26 and 55 years (my estimation). All but one of the design entrepreneurs had a formal education in design (e.g. B.Sc. and/or M.Sc.), and one had also a business degree (B.Sc.). Four of them aimed primarily at selling design as a service and four at developing their own product or concept design. Six of them were focused on product design, one on clothing and textile design, and one on interior and product design.

By including a small variation, I hoped to find potential differences in behaviour and practices among the respondents. For instance, I reasoned that it made sense to include Design entrepreneur H in the study, even if he lacked industrial-design-specific education. His comments brought a slightly different view of design entrepreneurship. In a sense, he was regarded as an outsider with an insider’s perception, or at least a much better perception than I had at the start of the research process. I saw this as important, since it allowed me to build a broader understanding of entrepreneurial processes among design entrepreneurs. It would also have been possible to collect data from either service or product-orientated design entrepreneurs. Another option would have been to select established design entrepreneurs with a proven track record. This choice could possibly have offered clearer process patterns, due to existing routines and established contacts. However, I considered that professional industrial designers with newly captured business insight would be capable to assist me in gathering knowledge of what entrepreneurship implies in the examined context. I presumed that due to small differences in the lines of business and level of experience, they would be able to point out specific themes of importance. This choice might have resulted in different research findings than would have been reached with another set of respondents.

Data were primarily collected via theme interviews, but also via observation and from various documents. Each respondent was interviewed based on a general interview guide (Appendix 3), which included rather broad themes concerning industrial design and design entrepreneurship. The respondents received a copy of the questionnaire before the interview took place. I discussed and developed the themes both with research colleagues and with the DBN programme director before conducting the interviews. The themes were related to significant factors which influence the process of creating and bringing design-related venture ideas to the market. More specifically, the guide included some general questions which requested the industrial designer to talk about their profession in relation to entrepreneurship. These general questions were followed by more comprehensive questions, which aimed at specifying the content of the given responses. At the end, the respondents were addressed with check-up questions, which focused particularly on the design process, as well as the influence of, for instance, various resources and motivation. In practice, the questions were adjusted according to the interview situations, by posing additional questions on subjects that were brought up by the respondents. These additional questions helped me to clarify and extend answers which I found valuable for the study.

Instead of collecting data via theme interviews, it would have been possible to conduct, for instance, narrative research. In that case, the respondents would have been able to tell their stories without the course of specific questions or themes. It would also have been possible to conduct longitudinal research by combining respondent specific
diaries, interviews, observation and even e-mail-based questionnaires. Nevertheless, due to practical limitations and feasibility issues, I decided to conduct theme interviews instead. In some ways the selected method of collecting material was a compromise between narratives and more structured interviews. The selected technique allowed respondents a certain freedom but did not limit responses to any given theoretical framework. Naturally, the selected technique had many limitations, but at the same time it enabled feasible means to construct a broad and rich set of data. My idea was that theme interviews would provide richer data and a broader scope of understanding than semi-structured or open-ended interviews could have accomplished.

All interviews took place in spring 2006. They lasted on average 2-3 hours, often with a short break in between. Four interviews were conducted in the meeting room of the business school and the other four in various places chosen by the interviewees (their office, home, or university meeting room). The interviews always started by discussing broadly about almost anything in relation to industrial design and entrepreneurship. I started to ask theme-related questions first only after I was confident that the respondent was relaxed and comfortable enough with the interview situation. Peculiarly, in the interviews taking place at the business school, the respondents appeared at the beginning of the interviews to be more organized than the respondents interviewed in their own environments. The respondents who came to the business school were probably forced to leave their routines, while the others were more or less interrupted in their daily working tasks. Nevertheless, I made an effort to neutralize the situation before each interview. As a result, I did not notice any significant differences in the way the respondents acted during the interviews.

All interviews were conducted in Finnish, since that was the mother tongue of all interviewees. Likewise, I am bilingual and Finnish is one of the languages spoken at my home. In that sense, it was fairly natural for me to conduct the interviews in Finnish. I recorded all interviews and used all my senses to listen to and observe the respondents. This allowed me to interpret their way of behaving and responding to various themes, which in turn enabled me to pose additional questions during the interviews. After each interview, I listened to the recordings several times before they were transcribed word-for-word. This lessen the risk of misinterpretations and made me more familiar with the interview content and situation. In addition, it ensured to some degree that my understanding did not change during the subsequent reading and analysis process. After transcribing the interviews, I gave the respondents an opportunity to read and comment upon the transcriptions. Overall, a few respondents replied with additional comments and suggestions for smaller changes.

In addition, I collected information by observing the respondents in a number of seminars within the DBN programme. These seminars focused on themes relevant for design entrepreneurs and were based to a large extent on discussions around participant reflections of their own entrepreneurial endeavours. I strived always to discuss with as many of the respondents as possible, trying to find out the development status of their business and their future intentions. In that sense, the seminars were fertile ground for making additional observations to strengthen the interpretations made from the interview data. During and immediately after these seminars, I also wrote short field notes while making observations. I compared these notes later on with the interview data and my overall interpretations concerning each respondent. Moreover, I also
received additional information from documentation, homepages, word-of-mouth, observation, previous work references etc. For instance, the programme director of DBN provided full access to all course and participant-related material.

4.3.3. Interpretation of research findings

The aim of interpreting data from design entrepreneur interviews was to develop and reshape theoretical ideas. The interpretation was conducted on the following levels: preliminary interpretation (Chapter 5), further interpretation (Section 7.1), and reflection on my interpretations (Section 4.4). Overall, the interpretation directed the continuance of the empirical research. As mentioned earlier, I made my interpretations mainly based on economic and business-related assumptions, thus, I decided to partly ignore creative or artistic reasoning that could otherwise be characteristic for industrial design. This may explain why business-related interpretations dominated, although it would have been possible to make other kinds of interpretations as well.

At the beginning of the interpretation, I focused on opening the data that were captured from individual respondents, so that they would make sense and eventually be comparable with each other on the aggregate level. It was important for me to understand what the empirical material meant in the case of each respondent before forming any opinions of the reality as such. For instance, I investigated text material from one of the cases (design entrepreneur D) in much greater detail, and presented how her entrepreneurial process had unfolded in a seminar paper (Tötterman, unpublished). I also continued reading and interpreting the transcripts from each interview, since I believed it would further increase my understanding of the examined reality. First, I tried to translate and sort data from each transcript without having any specific categories or a proper coding scheme to follow. However, I quickly realised that it would be an overwhelming task to work with the data in an unstructured way, and there was an evident risk that I would lose the sight of the original research purpose. Therefore, I decided to translate all the transcripts before continuing with interpretation of their content. It is arguable that it could have been wiser to first interpret in Finnish and then translate the interpretations into English, but I felt that it was easier to interpret and relate to previous research using the same language. The translation made me familiar with the data and eased interpretation and comparison with previous research. I continued to use the original written and recorded sources when checking the interpretations. Direct citations were translated first after writing the initial interpretations from the data.

As explained above, I found it challenging to begin by analysing the multifaceted, complex and time dependent aggregate level entrepreneurial process. I assumed that the largest challenges were associated with the very nature of the data. The data collected via theme interviews were so broad and rich in content that it was difficult to devise a way to make sense of them. I was somewhat surprised at these challenges, and soon I became exhausted in trying to increase my understanding of their underlying meaning. Compared with my previous experiences of interpreting data from semi-structured interviews, it transpired to be a lot harder to make sense of theme-related interviews. As a result, I consulted other scholars and methodology literature to find a means to overcome this confrontation. Consequently, in line with Steyaert (1997), the data were
partially interpreted by preserving the process approach (process descriptions and citations). In addition, the reflective interpretations were transferred into conceptual models which derived from the literature review and interpretations during the research process. The argument was that processes can and should be examined by using many different analysis strategies (cf. Langley, 1999). As Eisenhardt (1989, 544) emphasizes: “An essential feature of theory building is comparison of the emergent concepts, theory, or hypothesis with the extant literature.”

The coding scheme presented in Table 3 built on the logic that entrepreneurship is not primarily about who the entrepreneur is, but rather about what goes on during the entrepreneurial process. In that sense, I was interested in identifying various activities and their chronological order from the respondent-specific data. I tried to be as liberal as possible in accepting any kind of activity that occurred in the transcript data which I assumed that could be of even smallest interest for this study.

Table 3  Applied variables in the design entrepreneurs’ process descriptions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coding Scheme</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity description</td>
<td>Identification and description of the specific process activity, including the number where the activity can be found in the transcribed text (e.g. A1-A20)</td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>The initiator of a certain activity</td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>The initial outcome from the activity</td>
<td></td>
</tr>
<tr>
<td>Events</td>
<td>Events take place in time, when actions are executed and certain critical events occur, e.g. decision to exploit a new business venture</td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>Personality, Competence &amp; Experience, Industry &amp; Institution, Opportunities &amp; Identification, Decision-Making, Mode of Organizing and Outcomes</td>
<td>General conceptual description of specific activity</td>
</tr>
<tr>
<td>Opportunity</td>
<td>Sources, Identification &amp; Development, and Exploitation</td>
<td>Activity description based on the entrepreneurial opportunity view</td>
</tr>
<tr>
<td>Behaviour</td>
<td>Pre-Venture, Venture Creation, and Post-Creation</td>
<td>Activity description based on the entrepreneurial behavioural view</td>
</tr>
</tbody>
</table>

I addition, I also strived to identify carefully the igniters and inputs that caused a certain activity to occur, as well as the outcomes and outputs from a specific activity. In addition, I saw it as important to understand what actually happened during a specific activity by interpreting the specific events. The first part of the coding scheme was more based on a common-sense categorization of process activities. The second part described more findings related to the theoretical framework presented in Chapter 3. In that sense, I was influenced by the theoretical framework when setting up the coding scheme. As a result, I decided to establish three categories for analysing the relevance of
the theoretical framework. Within each of these categories the identified activities were interpreted and addressed as part of a certain sub-category. The first category focused on the typical elements of entrepreneurial processes, as identified in the literature review. The second category focused more precisely on the opportunity-based view of entrepreneurial processes and the third category focused on the behavioural-based view. It would have been possible to build an additional category based on the industrial analysis set forth in Chapter 3, but I decided against this due to the extensiveness of data and focus of research on the entrepreneurial process. Instead, I interpreted the relationship between previous design-related research and my findings and presented the insights in Section 7.3.

As can be seen in Chapter 5, I made the decision to present and interpret each interview under four broad topics. The topics have been edited since the beginning of the interpretation process, but they have always been focused on the following: underlying reasons for self-employment, the emergence of venture ideas, resource availability, and execution and modes of exploitation. It proved out to be quite effective to report findings from each interview by using these four topics. Another decision made was to leave as many citations as possible in the descriptions; since I believed that it made sense to let the respondents speak for themselves. Potentially, this adds to transparency, as others are thus able to assess the grounds for my interpretations. Nevertheless, I was of course responsible for selecting the citations. Thereafter, I decided to establish the coding scheme in table 3, to plough deeper into the meanings of the underlying entrepreneurial processes. This coding scheme was used while interpreting findings in Section 7.1. As presented in Appendix 6, using a coding scheme enabled a chronological presentation of each design entrepreneur’s entrepreneurial process (Tables 19-26).

4.3.4. Direction for continued data construction

The design entrepreneur interviews focused on interpreting the respondents’ own interpretations of elements and activities associated with their entrepreneurial processes. Based on the interviews, I learned that design entrepreneurs became self-employed primarily due to their desire for freedom and creativity. The entrepreneurs enjoyed idea creation but had limited interest in becoming involved in commercial activities. As a result, they often had to give in on their desires and needed to interact with other actors to bring their design-related ideas to the market. These findings indicated that previous research did not explain particularly well a situation where the entrepreneur focuses on idea creation processes, but expects to find someone else to take care of at least parts of the production and commercialization processes. In addition, previous process-related literature focused essentially on the decision to transform idea generation into market-orientated activities, but failed to explain in greater extent the ongoing decisions and choices that were made by different actors throughout the process. Several scholars had questioned the legitimacy of previous entrepreneurial process research, but few had actually made the effort to explore their validity in practice. Therefore, it did not make sense for me to create totally new insights by ignoring previous research contributions. Instead, I saw the opportunity to build and extend these, as well as assess their explanatory power in the given social context. On the down side, it is evident that data construction and my interpretations were at least to some extent influenced by these pre-insights. This in turn most likely limited the research findings.
Comparing the findings to previous entrepreneurial process-related research, suggested to me that none of the identified models emphasized ongoing decision-making during the process, or interaction between different involved actors during the entrepreneurial process. Therefore, after interpreting the findings I found it necessary to extend the original theoretical framework by introducing additional insights. These new theoretical insights were helpful in increasing my understanding of entrepreneurial processes that involved both design entrepreneurs and external actors in relation to production and marketing. Consequently, I was able to modify and extend the preliminary conceptual model (presented in the end of Chapter 3), by combining findings from the previous theoretical discussion, my interpretations, and the new theoretical insights. The new model identified the need for ongoing decision-making and the influence of various external actors during the unfolding of the entrepreneurial process. By taking these measures, I believed I was better able to explain how self-employed designers actually functioned as amplifiers of their own, and others’, entrepreneurial processes.

This decision required a broader scope than continuing to interview only design entrepreneurs. It would also have been possible to continue, as indicated earlier, by longitudinally studying the unfolding of a number of design-related entrepreneurial endeavours, by making observations and interviewing all the actors involved. This would have allowed me to follow the design process all the way from the beginning until the products were successfully launched onto the market. However, the results from interpreting the data from design entrepreneurs suggested that longitudinal data collection could last for a long time, without any certain outcome. As mentioned by the respondents, some of their entrepreneurial processes may last or had lasted for many years (sometimes even tens of years). Therefore, it would have been too risky to select and follow the unfolding of specific entrepreneurial processes. Instead, after interpreting findings from design entrepreneur interviews I decided to continue with interviewing external actors, who were accustomed to working with design projects together with design entrepreneurs. This made sense for me, since the design entrepreneurs had identified them as important actors for the advancement of their entrepreneurial processes.

I regarded it as an important theoretical and empirical contribution to highlight the fact that entrepreneurs may, and often are, forced to interact with other actors when bringing venture ideas to the market. Therefore, I made the choice to continue data construction by interviewing external actors who were experienced and had been involved in design-product-related production and marketing processes. This choice made sense as throughout the study my interpretations indicated that design entrepreneurs seldom carried out their entrepreneurial processes alone. The critical question remained of whether it was an optimal choice to shift from interviewing design entrepreneurs to interviewing external actors. I made this decision because it enabled me to gain more understanding and uncover more insights concerning the design entrepreneurs as amplifiers of their entrepreneurial processes, and others product development processes.

As pointed out above, there were other options, too, and these may have offered more insight to individual entrepreneurial processes. However, I was certain that the benefits from making this selection outnumbered the disadvantages when taking into account some of the uncertainties related to the other means of constructing data. I had limited resources as regards conducting more extensive field studies. In addition, I felt a need to
increase my understanding of the influence of ongoing decision-making and external actors in as much depth as possible. I also believe that my decision to continue with external actor interviews was supported by the nature of the research approach, which aimed at going beyond the evident data.

4.3.5. Re-entering the field

The external actor interviews aimed at identifying means for collaboration to advance entrepreneurial processes in association with design entrepreneurship.

The selection of external actors was carried out based on how interesting each respondent was for the development of the research in the specified direction. I selected some external actors with direct relations with some of the design entrepreneurs interviewed, based on their potential contributions for constructing an increased understanding of the phenomena. In addition, I found suitable respondents during the process by listening to recommendations from various external actors, combined with my interpretations in relation to the research problem at hand (cf. Abnor & Bjerke, 1997:224). I followed the argumentation that the design entrepreneurs encountered challenges in forming business relationships with production and marketing-related external actors. I did not strive to find a perfect match, but rather to increase my understanding of why it was challenging for design entrepreneurs to form joint efforts with these kinds of external actors. Regardless of my choices, it is also possible that it may have been wise to examine only a few entrepreneurial processes by continuing to interview only external actors who had been working with some of the previously-interviewed design entrepreneurs.

I contacted nine potential producers and marketers who I considered to be representative for this study. Four of these had already established contacts with some of the design entrepreneurs, and the preceding five represented the potential for interaction in at least one of the previously examined entrepreneurial processes. I also decided to interview two industrial-design-related advisers and three design-related experts since I believed that they would provide a detailed and overarching perspective of the research context and the dynamics of the market. Eventually, I sent an e-mail-based invitation to the 14 selected persons, and they all agreed to participate in the study. They represented the upper management and often were the owners of their businesses. Simultaneously, it was ensured that they were operatively in daily contact with industrial-design-related matters. They were assumed to have a good understanding of their organisation’s particular operational processes and the dynamics of the market. Consequently, four of the respondents represented production companies that focused on subcontracting and/or their own production; five of them represented sales and marketing companies; two represented advisors for design entrepreneurs; and three represented experts in the field of industrial design. The size of their organizations varied considerably: the smallest were the advising and marketing organizations with only a couple of employees, and the largest represented production companies with a little fewer than 100 employees. A complete list of all respondents can be found in Appendix 5, and the selected respondents are described briefly in Section 6.1.
Another issue particularly related to external actor selection was that they represented the top management and were the only respondents from their organizations. I realized that this kind of selection could involve issues of representation and authority. On the other hand, their organizations were all relatively small, which should increase the possibility of transparency. I also ensured before making any final selections that each of the respondents was operatively involved with the examined phenomenon. In addition, I precisely wanted to hear the top managements and the owners’ views, since they were the ones making most of the decisions that would influence the organizations’ association with design entrepreneurship. In the given resource space, I would not have been able to conduct more interviews within one organization. The only option would have been to focus on a smaller number of organizations, but this was something that I was not prepared to do.

Before starting with the actual collection of data, I carried out a pilot study to validate and fine-tune the research instrument (i.e. the semi-structured interview guide in Appendix 4). The pilot study involved discussions and a brainstorming session with experienced research colleagues, who helped me to ensure that the right questions were asked in a proper manner. After that, I tested the instrument by interviewing a professional from the field of industrial design (one of the design experts). The interviewee was, among other things, a partner of an industrial design agency, and also a former project manager of a domestic policy programme that enhanced industrial design. After the pilot interview, the respondent was asked to comment on the flow of the interview and the questions more specifically. Thereafter, the collected data were transcribed and interpreted, which resulted in some minor changes to the research instrument.

Before each interview, the respondents discussed in general about design entrepreneurship and product development processes. Intentionally, I did not interrupt them to start the official interviews, nor did I feed them with questions, but instead I allowed them to talk and decide when they were ready to start answering the questions. Many interesting interpretations emerged from letting the respondents air their thoughts before turning to the actual questions. I decided to conduct a semi-structured interview, due to the problems I had previously encountered in analysing the rich and extensive data from the theme interviews. I believed that by using a semi-structured technique the respondents would focus more on relevant topics for the research, but simultaneously a degree of openness was still permitted. The questions were divided into three main categories, and I also frequently asked clarifying questions throughout the interviews. Some of the questions were more related to service providers or designers with their own product, whereas others were more general. In each case, I sought to ensure that the respondents would focus on both service and product providers. The first set of questions focused on setting the stage, by asking the respondents to describe their reflections and experiences concerning design entrepreneurship. These questions provided me with important background information on the respondent’s values and attitudes towards design entrepreneurship. Before asking the second set of questions, I asked the respondents to think of design entrepreneurs who either offered industrial design services or were seeking external actors to develop and commercialize product-related ideas. I made a mental note on what they decided initially to focus on and made sure that I returned to their views on the other form of design entrepreneurship. The
second set of questions focused on the means of collaboration, in addition to the interests and resources of involved parties. The focus was also on the flow of the product development processes, from the moment of commencement until the finalized products reached the market. I then asked various specifying questions, focusing, for instance, on decision-making, the novelty of products, the basis for business relations and commercial risks. At the end of the second set, I asked the respondents to state their message to starting design entrepreneurs. This question resulted in many interesting interpretations which enlightened the respondent’s relationship to design entrepreneurship. In the third set of questions, I asked the respondents to state potential names of parties that would be important for design entrepreneurs. This question aimed at ensuring that I had not missed some important actor, and in that sense also pointed out interesting respondents for the continuation of the study.

All interviews were conducted in spring 2007 and they lasted on average 1-3 hours. The interviews were conducted in Finnish, and only one of them did not take place at the premises of the respondents’ organization. In this particular case, the interview was carried out at my business school. I recorded all interviews, and they were then transcribed word-for-word, as well as translated into English. During and after the interviews, additional material was collected, for example from the media, company presentations and documentation of internal product development processes. For instance, some of the producers provided me with all the detailed descriptions of their standardized product development processes, and some marketers gave the details related to product-specific figures and logistics. These kinds of insights offered an excellent opportunity to further increase my understanding of their business-related reasoning.

4.3.6. Interpretation of findings from continued research

The aim of interpreting data from external actor interviews was to continue to develop and reshape theoretical ideas. The interpretation was conducted on the following levels: preliminary interpretation (Chapter 6), further interpretation (Section 7.2), and reflection on interpretations (Section 4.4). Overall, the semi-structured interviews with external actors were valuable from the data triangulation perspective and the interpretation of them brought the empirical research to a close.

Thereafter, I created a coding scheme which derived from the interpretations of findings from design entrepreneur interviews and literature referred to. Consequently, as shown in Table 4, data were primarily coded according to the elements and progression of entrepreneurial processes, with a special focus on associated decision-making and activities. The coding scheme built on the logic that entrepreneurship is about the elements and activities that constitute entrepreneurial processes. More specifically, as also shown in the table, the coding scheme was divided into five different areas of interpretation. Each of these areas focused on important factors that explain the respondents’ experiences and attitudes towards design entrepreneurship and associated entrepreneurial processes. They served to increase my understanding of the dynamics between design entrepreneurs and selected external actors, as well as my understanding of the entrepreneurial processes more generally.
### Table 4  Applied variables in interpreting external actor interviews

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Coding Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiences from working with design entrepreneurs</td>
<td><strong>Personality characteristics</strong>&lt;br&gt;Personality and motivation, core-self evaluation, and cognitive characteristics</td>
</tr>
<tr>
<td>Underlying reasons for establishing business relationships</td>
<td><strong>Industrial factors</strong>&lt;br&gt;Knowledge and demand conditions, life-cycles, investment requirements and structure</td>
</tr>
<tr>
<td>Decision-making related to product development and promotion</td>
<td><strong>Decision-making and product development</strong>&lt;br&gt;Decision related to identification and development</td>
</tr>
<tr>
<td>Identification and design entrepreneurship</td>
<td><strong>Pre-production</strong>&lt;br&gt;Sources, forms and development of venture ideas</td>
</tr>
<tr>
<td>Modes of organizing</td>
<td><strong>Modes of organizing</strong>&lt;br&gt;Strategy, organizing process</td>
</tr>
</tbody>
</table>

Applying a coding scheme made the interpretation clearer, but somehow it did not reach the same depth of analysis as the previous interpretation. Perhaps this was the case, as I had been forced to work intensely with the first set of data to make sense out of it. Another explanation could be my, to some extent unavoidable, learning process, which might have made the interpretations more foreseeable. Nevertheless, according to Langley (1999), a coding scheme helps to structure the material, but works equally to determine those elements that will receive less attention. All decisions, process elements and activities were coded and data were sorted according to the coding scheme. The decision was made not to write out process descriptions or create tables to depict the process descriptions of external actors, since the focus of the study was on the entrepreneurial process seen from the design entrepreneurs’ perspective. Respondents were given the opportunity to read and comment on my interpretations, the presentation of research findings and direct citations (Section 4.3).

As with interpreting the findings from design entrepreneur interviews, I continued to check original data sources and transcripts. This helped me to make accurate interpretations concerning significant findings and to make citations that were as correct as the translation allowed. Data from each interview were opened independently to build an understanding of the way each external actor described the examined social reality. As before, it was important for me to understand what the empirical material meant in the case of each respondent before forming any opinions of the reality as such.
Due to the semi-structured method of collecting data, it became easier to structure the interpretation of each interview based on the interview questions. As a result, I interpreted each external actor interview in relation to the following: the differing needs of involved actors in entrepreneurial processes; fundaments for building relationships with design entrepreneurs; and the product development process, as well as decision-making associated with production and marketing. Next, I decided to bring the preliminary interpretations together (Chapter 6) and to continue interpretations on the aggregate level (Section 7.2).

### 4.3.7. Synthesizing interpretations

After interpreting the data from interviews with external actors, I had a clearer picture of how they interpreted the market-related dynamics and their relationship with design entrepreneurs. The findings strengthened my understanding of a potential mismatch between the expectations and behaviours of design entrepreneurs and external actors in advancing entrepreneurial processes jointly. The external actors described product development processes as following a certain pattern of order. The major exception from this clearness appeared to be processes that involved substantial novelty, since the flow related to them appeared to be more challenging to predict. Perhaps as a result, many of the external actors appeared to be cautious and almost unenthusiastic regarding true novelty in their product development processes. Some of the process patterns identified from external actor interpretations were at least to some extent in conflict with the desires of the design entrepreneurs interviewed. For instance, external actors saw limited need for appointing or collaborating with design entrepreneurs in initial idea generation, since they saw challenges in incorporating the outcomes into their processes. Instead, the external actors appeared more willing to appoint design entrepreneurs in product development processes that were initiated and orchestrated by themselves. In that sense, external actors were likely to see venture ideas generated by them as feasible, since they believed such ideas would be less risky and better suited for their own processes.

On the general level, my first impression was that external actors described entrepreneurial processes somewhat in line with the conceptual model that resulted from interpreting findings from design entrepreneur interviews. Nevertheless, by continuing to interpret findings from external actor interviews, I realized that their descriptions resembled more some of the industrial design and new-product-development-related process models presented in Chapter 2. Consequently, the findings from external actor interviews further increased my understanding of the dynamics that underlie design related entrepreneurial processes. Simultaneously, the findings suggested complicated cycles and modes of change; thus, it made sense for me to compare these findings with those that had been made from interpreting design entrepreneurs.

The selected interpretation strategy is something that Langley (1999) calls a synthesis strategy. In line with this, the research process was set out to validate and adapt existing conceptual insights with the examined social context, first by interpreting design entrepreneurs and then by interpreting associated external actors. Thereafter, I brought together these interpretations, based on the basic assumption that entrepreneurial processes are entwined and that the actors involved interact in various ways. On the one
hand, design entrepreneurs wished to be, and often were, accompanied by several actors throughout the duration of the entrepreneurial processes, and on the other, external actors needed to adopt design entrepreneurs into their entrepreneurial processes due to the demand for expertise associated with industrial design. Design entrepreneurs typically described complex process patterns that could be asserted from previous entrepreneurial process models, whereas external actors also showed complexity but were more in line with the conceptualizations in previous research.

My interpretation from this interpretive mismatch was that different actors made their interpretations from the perspective of their specific entrepreneurial processes. Perhaps some of the inexperienced design entrepreneurs had not yet fully identified their role in the process, whereas external actors relied more on their track records for carrying out product development processes. This assumption would imply that design entrepreneurs saw the process to some extent as unpredictable due to their inexperience, and the external actors saw it as more predictable due to their greater experience. This interpretation would imply that another set of respondents would most likely have resulted in another set of synthesized interpretations. Nonetheless, based on this set of data, my synthesized interpretation was that throughout the processes decision-making was continuous and activities were carried out in interaction with various parties.

4.4. REFLECTIONS ON INTERPRETATIONS

As the researcher, I constructed the interpretations underlying this study through a hermeneutical process. Typically in interpretive research, parts of the interpretations made on behalf of the respondents and the researcher will remain unclear for an external reader. In that sense, the reflection here was regarded as the interpretation of interpretations, which offers the reader my critical self-exploration on constructing and making interpretations of empirical material. Consequently, it is up to the reader to make his or her own interpretations based on those that I have made in this study. In that way, I hope that the reader is able to increase his or her understanding of design-related entrepreneurial processes. I decided to report my reflections collectively, although I made reflections on the work of interpretation consistently throughout the research process. Alvesson and Sköldberg (2004) encourage the researcher to think about what the empirical material mean and why we make these specific interpretations before forming any opinions of the reality as such. The following reflection of the underlying meanings implies a focus on me as the researcher, the way I have been working and the selected sources of data.

Firstly, I find the influence of my pre-understanding to be particularly important when making a self-reflection related to the line of my interpretation. The pre-understanding influenced my approach to setting up the research scene, the selection of suitable respondents, data construction, and eventually interpretation and reflection of research findings. As I have mentioned previously, at the beginning of the research process my understanding of entrepreneurship was considerably developed in comparison with my limited perception of industrial design. I realized from the beginning that explanation building in particular contains an obvious danger related to the lack of experience and intelligence of the explanation-builder (e.g. Abnor & Bjerke, 1997; Charmaz, 2006). In this study, I tried to reduce this evident risk by constantly referring to the original
purpose, and also by continuing to compare findings with both theoretical and empirical sources throughout the research process. In addition, I used various data interpretation strategies to ensure that data were used to increase both internal and external control of the research process (e.g. Langley, 1999). I also believe that the research process was assisted by my previous experience from conducting multiple-case studies within the field of entrepreneurship. It can be assumed that these factors assisted in collecting and making sense of the data. Nevertheless, I first decided to build my explanations primarily based on entrepreneurship research, yet I realized the need to relate findings also to relevant industrial design literature. Otherwise, the research outcomes would have appeared imprecise, and they would not have addressed the uniqueness of industrial designers as entrepreneurs.

Concerning text production and language usage, I realized while constructing and interpreting data that there was a risk that the text would become decoupled from the author. As in most qualitative research, I was faced to some extent with challenges associated with representation and authority. For instance, I was forced to process the original transcripts, interpret what respondents had meant, as well as select parts from these previously edited interviews to be exposed in the final manuscript. Nevertheless, these measures were necessary to create an accessible and interesting text. On the other hand, the medium for interpretation was words in this study, which implied as mentioned that it was possible to include several quotations from the original data. This ensured that it was relatively unproblematic to reproduce and allow the respondents to speak for themselves. I felt that showing as much empirical data as possible would allow the reader to evaluate the way I had been working (Silverman, 2005). This is a method that is relatively rarely used in qualitative research, but I became inspired by it when reading the dissertation written by Sten (2006) on transfers of family businesses. I believed back then, and I still believe, in opening empirical material by using many quotations from interviews. However, this choice resulted in a relatively wordy thesis despite my efforts to minimize the number of pages.

Secondly, as a researcher, I strived to respect the respondents’ claims concerning their realities. At times, it was challenging to interpret the underlying meaning and not to set myself above them when making my own interpretations (Alvesson & Sköldberg, 2004). For instance, I tried to ignore the fact that in the wider society industrial designers are typically characterized as a relatively bohemian group of professionals. People tend to assume that industrial designers have skills and interests related to creativity, but somehow lack these related to business and entrepreneurship. Similarly, it is more than likely that the respondents were somehow influenced by the cultural and economic ambience associated with the field of industrial design. Creativity and design-related talent is commonly seen as highly intangible, which also makes it difficult to grasp how much creativity an individual or product actual possesses (cf. Valtonen & Ryynänen, 2007). Therefore, all in all the interview material was interpreted by taking into account the special conditions of the industry. In practice, the interpretations expressed both authority on my behalf especially related to entrepreneurship, and moreover, on behalf of the respondents related to industry-specific conditions. I found it important to reflect upon potentially problematic forms of authority which might have influenced data construction and interpretations in this study. For instance, the respondent transcripts could be seen as including variations concerning their way of
reasoning regarding specific themes or questions. Further, it was likely that the respondents represented a multiplicity of identities, which may have influenced their way of responding to questions during the interviews. Following this reasoning, I saw it as probable that the respondents’ interpretations included some form of pluralism and the potential of different sorts of identities would be invoked in the constructed data. Thus, I tried to identify and be conscious of any underlying identities when making interpretations. For instance, design entrepreneurs often focused on describing the design and development of new products when discussing entrepreneurial processes. Only when asked specifically would they explain that they did not focus on developing their companies since they saw design entrepreneurship as limited to project-based work opportunities. I kindly refer to Sections 5.9 and 6.7 for discussions on respondent identities.

Thirdly, my choices related to data construction and interpretations were based on my theoretical assumptions and pre-understanding of the examined social reality. I created my understanding concerning what the entrepreneurial material meant based on these underlying factors. The outcome would have been different if another theoretical starting point had been chosen. As I presented earlier, entrepreneurial process-related research is a relatively young and undeveloped field of inquiry. The field is still seeking for appropriate conceptualizations and means for collecting empirical data. As a result, the conceptual and methodological choices that I made in this study might not be the most valid way of capturing entrepreneurial processes in the future. For instance, Steyaert (1997) was already arguing in the late nineties that taking a process view on entrepreneurship implies a need to rewrite previous research practices. Accordingly, researchers should look for methods that preserve the process approach from converting abstract concepts into conceptual models. Thus, entrepreneurial processes should be concretized with the use of process language, dilemmas, and events (Steyaert, 1997). Similarly, Pettigrew (1997) stated that in a process analysis the language used must be grounded in action as the actions drive the processes. Actions are still embedded in contexts, which limit their information, insight and influence. Consequently, in this sense I agreed to Steyaert’s (1997) and Pettigrew’s (1997) arguments and illustrated the data in a process format, but I portrayed also the outcomes in table format (Appendix 6). In addition, data were interpreted by comparing them to previous research findings. However in opposition to Steyaert’s suggestions, the interpretations were also compared and converted to some extent into process models put forth by previous researchers. This was done to allow comparison with previous research findings, by taking into account the context delimitations and challenges of making generalizations. In Subsection 7.3.5, I show openness to other representations, interpretations and conclusions than those I favoured at the moment of conducting this study.
5 INTERVIEWS WITH DESIGN ENTREPRENEURS

This chapter presents my preliminary interpretations of data from interviewing eight design entrepreneurs. Consequently, this chapter aims at introducing various processes of design entrepreneurship in the Finnish context (5.1-5.8). Each design entrepreneur is presented by first focusing on their underlying reasons for self-employment, the emergence of venture ideas, resource availability, and finally, execution and modes of exploitation. The chapter ends with a summary and discussion concerning the respondent identities (5.9). My further interpretations of design entrepreneur interviews are set forth in Section 7.1.

5.1. DESIGN ENTREPRENEUR A

Design entrepreneur A (DEA) offers industrial design services mainly to production companies, with a particular focus on early phase product development. In addition, he himself has some product designs on the prototype level. He is also interested in furniture design and has a comprehensive education in that area. More precisely, he has an industrial design education (BA) and is a wood-processing artisan. He uses both traditional hand-tools and software in his design work. DEA became self-employed after graduating (BA) in the autumn of 2005, and currently he is setting up a business from an office at home.

5.1.1. Reasons for self-employment

DEA assumes that working as a designer requires constant justification of their work, because business life is in a sense pessimistic towards creative thought. Thus, it requires extra effort to pass on the message to potential clients. He has noticed that many young colleagues have the right direction from the very beginning, but then there are also older colleagues who are still seeking their own direction. He assumes that a designer should be driven by his or her own choices and has the courage to invest in enhancing their own career as a learning process. DEA seems to agree that self-employment is a choice of lifestyle for him. He wants to be personally satisfied and earn a living from his work without any further ambitions for large-scale business development. DEA has no intention of establishing and creating the kind of company which he could one day sell for a substantial sum. Instead, he wants to earn enough to be able to put bread on the table. In ten years time, he visions himself having one or perhaps even a few business associates, offering design services to some specific business sector.

The important thing is to work with something that feels close to his heart – to work with something he enjoys and to be paid for this. DEA claims that he is a typical design entrepreneur who mostly aims at selling design as a service and receiving an hourly payment for his input. He distinguishes his work input as being a leisure pursuit, as which it sounds more positive than work as such. He wants to create a life and living environment where it is good to live. His creativity disappears when it is forced or he is surrounded by irate people:
“For me, it is something that kills creativity. Then nothing else goes on in my head apart from, for example, some confrontation. It is particularly important for me to be in a good mood, and work with a good mood: money can flow in when you have fun. According to my view, when it becomes too pressured or stressful, then it does not work out in this profession, not at least for me.” (A)

A typical day starts with making breakfast and taking his son to kindergarten at 8.30 am. After that, he comes home and puts on the computer and some music. Music is something that he claims is particularly important, and he always plays music when he is alone. Back at the computer, he checks his e-mail and Internet for daily matters, which requires his attention. Sometimes he has already done this work the evening before. Overall, he does a large amount of work at the computer and also with a traditional writing block. However, he realizes the desperate need to make “cold calls” to potential clients. To make such phone calls appear to be hard for him something that DEA claims is also common among his colleagues.

“I realize the desperate need to devote myself to promoting my services, but I just have not been capable of doing it. This need derives mainly from my desire to have references visible on my homepage, since my own ability to communicate is not sufficient. Cold calls, more cold calls and cold calls; it is the self-promotion that is so difficult for me.” (A)

5.1.2. Creation of venture ideas

DEA believes that artists merely “empty” themselves when they create ideas, whereas industrial designers must have a specific filter and purpose for their upcoming ideas. He describes the moment as being in a trance-like state when most ideas are born and the work flow is strong. In such moments, he becomes almost over-excited when the ideas start to form. In contrast, ideas do not emerge if he is tired or in a bad mood. Therefore, the right mood is important, as it also allows the combining and reorganizing thoughts into more realizable ideas:

“When I am most productive and the work is flowing, then I am in some form of a trance. A form of overwhelming excitement about something; the content around that something emerges afterwards. If I am tired or especially if I am in a bad mood, which I strive not to be, then my head does not work at all. Eventually, when I am relaxed and in a good mood, and when the attitude is in place... it always comes somehow via intuition, 'this is how I feel and let's put it on paper.'” (A)

At times, he allows himself to play around with ideas artistically, but admits that too few of them are ever put to paper. Occasionally he writes down early phase ideas, hoping to continue working with some of them sometime in the future. Many of these ideas are rather silly and he would not dare to show them to anyone, whereas they are really the visual outcome of letting his imagination fly. Normally, he seeks to develop products or services as he has a specific counter-reaction against the arts, since it is ‘only about me, me, and me’. Overall, DEA admits that he should write up more things, and too often he notices that he does not have his notebook with him. He returns to his notes quite often and continues developing an idea until he reaches a standstill once more and moves over to some other task. None of his own product-related ideas have so far been commercially manufactured. On the other hand, he believes he will have an idea bank at some point which contains a large number of developed ideas. Hence, taking notes is purposeful and aims at creating this resource. He says:
"I have often returned [to an idea] and then continued it a bit further, until I reach a halt again and my interest passes on to some other object. So far, I have not taken any of my ideas to a conclusion and produced them or anything like that. I believe strongly that at some stage in life I will have a kind of idea bank which will include many developed ideas. (A)

According to DEA, there is a difference between designing products from customer and product perspectives; the latter aims primarily at pleasing the designer, whereas the former focuses on pleasing the customer. Consequently, production-related matters and the target customer segment become important. Designing a desirable product is then influenced by the values that the product should represent, who will produce it (the customer or their subcontractor), and the customer’s product-specific budget. Nevertheless, in DEA’s experience, it has been important to also allow thinking outside the boundaries of materialism and productivity, as otherwise he is afraid of feeling distressed as a designer. Often, he experiences a contradiction between his thoughts and his profession, since designing is about producing new things. This in turn leads to an increasing consumption in the society, which feels bad for him.

Moreover, the first business idea emerged after DEA graduated as an artisan and wanted to become an employed woodcrafter. Probably his professional pride was against him working at the production line in a nearby factory. Consequently, the idea of self-employment was created but was not possible financially due to the necessary highly-expensive machine investments. Later on, as he continued studying design, he realized that employment opportunities would be limited after graduating. Along the road, he has had several business ideas, but eventually during his studies he decided that one day he will have his own design bureau. Currently, DEA has several business ideas related to craftwork and production, but he would also be interested in establishing his own small farm for ecological growing. However, these two professions cannot be combined, since there would not be enough time for both. Instead, he sees the need to have something specific to focus on, invest in and constantly learn from in order to increase personal professionalism and receive an increasing number of clients. For the moment, he continues to promote his services.

5.1.3. Resource availability

DEA has grown up in a family and atmosphere where handicraft and visual arts have always been present. In that sense, he is satisfied to be focused professionally on something that has always been natural for him. Hence, to develop new things and working with various projects. DEA has since early school age enjoyed classes in arts and technical subjects. DEA sees artistic abilities mainly as a creative way to work, combining information and skills with each other. Working in the design sector requires an aesthetic eye and knowledge regarding the surrounding culture. He considers that many admire artistic ability, but the admiration often derives from an unawareness of what creativity actually is. Hence, arts and creativity are basically pretty common issues and everyone can learn at least parts of them. For example, creativity and drawing skills can be learned. Education provides confidence and a routine structure which assist in taking actions on your own or together with others in various situations. Drawing skills are particularly important since, in a product development meeting, the designer is commonly expected to visualize group thinking and their own thinking. According to DEA, his educational background provided only limited education in entrepreneurship,
and, thus, he calls for much more education regarding self-employment and business operations.

“Entrepreneurship was taught at the Artisan school for about two study weeks, anyway very little on business activities. Similarly, in the polytechnic, they taught us about five study weeks of business-related studies. Company collaboration was mainly via collaborative work projects, which we also had only a very small amount of.” (A)

Now he has realized that self-employment involves a multitude of administrative duties as well as working with the design related tasks. DEA believes that his previous life experience has coached him well in the creative way of working, but he still needs more experience from working as a self-employed designer. In addition, DEA has found it rather difficult to locate appropriate networking companions. All the same, he agrees that a business network is tremendously important, whereas staying only inside the walls of his home will result in an inadequate learning process and, eventually, depression. He admits that occasionally it feels quite time-consuming to turn around ideas all alone. Consequently, a proper network would be important for enhancing business as well as for providing a good feeling to its members. He experiences establishing business contacts as challenging, since his communication skills are weak, and he suffers from not having an updated reference portfolio that could be shown to others. Thus, he has avoided talking about his business to others, since it is not quite clear for himself either. Nevertheless, DEA claims that collaborative partners are needed to stimulate his own self-employment:

“It is really important. If there is nothing else around than my own small world, then my learning transforms into a decline. Occasionally I feel that after graduating from school, I am now alone here at home fighting with these things. Turning these ideas around in my head seems frustrating and futile sometimes. Of course a collaboration network is largely the source from which people receive something.” (A)

During the first six months of self-employment, DEA received a government provided “start-up salary” that has enabled business planning and development. For the moment, there are no plans to develop the business with borrowed money since there are insufficient identified customers. Some years ago, the lack of financial capital hindered him from investing in own production machinery, but now as a service provider the capital requirements are significantly smaller:

“Then in marks it would have cost about 500,000 FIM for me to have had a functioning workshop. Then I did not have the courage to enter. Now, years after when..., well, everyone has computers, and during my studies I have purchased tools that allow me to work. In that sense, I do not have such large investments, even if those software investments are what they are.” (A)

5.1.4. Execution and modes of exploitation

DEA has informed the tax authorities that he works with industrial design as a self-employed person, but has not yet registered a business name in the trade registry. The main reason why he believes it could be wise to found a limited liability company is the reduced responsibility, e.g. related to a disastrous client project. After almost six months in business DEA realizes the urge to finalize a business plan so that he can start to earn a living on his business. Having a clear business idea would also make it easier to
establish contact with clients and collaborative parties. He would like to work on an hourly basis with early planning, concept design, visionary design and specifying concept design. However, he feels forced to accept all work opportunities, especially now at the beginning. In the longer term, he aims at conceptualization and later also on researching conceptualization, which involves dealing with values etc. This is an important skills area as he believes that design is about information creation, which in turn requires understanding of design fundamentals. Hence, how humans experience information internally and communicate information between each other:

“I am pretty much prepared to work with all kinds of tasks, but early phase product design and concept design are the ones I have confidence in. If I start to consider other tasks, then it involves more exploration and takes more time because my expertise in them is not as developed. I believe that I really have to be in the task of selling from day to day, even if I were to be in the development team improving existing products or creating new ones.” (A)

Soon, he will launch his first homepage on the Internet; it has been revised several times and is yet to be fully satisfactory. He also needs to produce material (a reference portfolio), which he can rely on when making contacts. DEA strives to be careful to promote his services so that potential clients do not become offended. Hence, most industrialists are practical, and that is also shown in their way of thinking and in all things they do. Hence, there is a gap between industrialists’ way of thinking and the emotional world. This is something that he would like to work on. Overall, the shallow way of thinking is rather typical for an industry based-community.

“To be honest, now I have my first client, after being self-employed for half a year. This surely is a result of my minimal sales work. That is something I know that I should have invested more in, and I must do it from now on. So far, I have also not invested enough in it because I first wanted to have my references visible in text format since my verbal output is often sticky and disjointed. At least, I have such an image of my own verbal output. Often I am not able to spit it out. Instead, I circle many times around pointless issues and not around the core.” (A)

The future for DEA is still wide open, and that is the way he strives to have it for as long as possible. Before drawing the line and sticking to it, he really wants to experience more and learn to know what he wants. Perhaps in ten years time he will know his core competence, and then he will be able to avoid offering a little bit of something to everyone but with poor quality. Before that, he must establish contacts with collaborative companies and learn practical and work routines, along with deciding upon his personal focus. He wants to satisfy himself and bring food to the family’s table. Hence, he sees himself as a lifestyle entrepreneur, without a great ambition to develop a business with several employees and fancy company cars. He wants to get by, and that is all. Overall, he has learned that without a good time schedule nothing becomes finalized. It is too easy for him to stretch schedules, which is perhaps acceptable regarding hobbies. However, precision is required to receive an income from a profession. In addition, collaboration with others requires living up to agreed agendas, which is also something that he has continuously learned step by step. Nevertheless, there remains to learn on this issue. Occasionally, he must command himself to focus on the specific matter at hand, and to stop working on all open tasks at once. He agrees that it is too easy to start doing something else, regardless of time schedules, if the task at hand is going poorly. So, hopping from project to project is something that comes fairly naturally to him:
“For me it has always been easy to depart from a project, since I have done it all of my life. It is also easy to return to a project that I have left unfinished. I have always liked to work with everything simultaneously, but when doing it randomly and without a proper plan to follow on a daily basis, hour by the hour, and then it takes, for example, five years to graduate. Eventually, I will reach a stop. Then I need to become more focused, and direct my resources and interests towards something specific, but I am not stressed by this.” (A)

In the future, DEA would like to work in a similar way to one of his role models, who focuses on own product design and product development and has someone to assist with production. He agrees that it takes a certain kind of creativity, willingness to test, braveness and understanding of the future to operate one’s own production company with more than a few employees. On the other hand, DEA does not see a huge need to design his own series carrying his own name. Instead, he is currently seeking for confidence as a designer by aiming to sell himself on a service basis. Having his own product design and production would require that products are actually sold, but he is not yet ready to take the financial risk. Naturally, if designing for others on a service basis, the products must also sell then, too, but the monetary stakes are then different and often carried primarily by clients.

5.2. DESIGN ENTREPRENEUR B

Design entrepreneur B (DEB) offers industrial design services to production and marketing companies, and will bring his own product related ideas to the market. He graduated with an industrial design degree (BA) in the spring of 2006. He has previously founded and operated two different businesses, one related to sports and another to handicraft. Currently, he is planning to formalise his self-employment and set up his own business.

5.2.1. Reasons for self-employment

DEB would like to become self-employed and earn a living from something that does perhaps not even feel like work (something to enjoy). He has previously worked in several work places where it has been depressing to go in the mornings. The worst is when you are given substantial responsibility, but no decision-making power to influence the working methods. Subsequently, it does not matter for him in the short run if the work is creative or not, as long as there is balance between responsibility and autonomy. However, in the long run the tasks should be creative in order to be enjoyable. DEB does not like it when work becomes too hectic, as half-done work does not give proper mental rewards. For example, he does not see himself working for an industrial design bureau, selling design services for a low price, with a low salary and no time to do things properly. Instead, if not operating his own business, then he would rather work as a designer in a medium-sized industrial firm. An employer like that would allow him to work with a broader spectrum, with a proper commitment to projects and time to ensure that the work is done properly.

Currently, DEB has a picture of what his future work tasks could be. In addition, he already knows fairly well the potential products for which there is an expected demand. Moreover, he would also be interested in offering design services, but claims that the
market is competitive and the pay rates low. Consequently, he assumes that it is demanding to find enough customers at the start, especially for design-related services. Therefore, he would like to see himself offering services more as a side business, whereas promoting his own design products would be the main business:

“...The problem remains when thinking of selling design services to the industry. First, there is a large supply, and on the other hand, what is the market situation when there is an oversupply? In general, the competence has not been properly marketed. Sales have been based on the hour, instead of selling own competence from a benefit perspective, which would allow billing based on the entity and created impact. Oversupply has led to low hourly compensation levels.” (B)

Consequently, DEB will not be ready to join the rather common rat race of pushing down prices just to get customers who are not willing to pay a proper price for design services. He believes in the business idea of combining his own product design with offering design services, since both business tracks will support the other. Hence, getting his own products on the market in a credible fashion will eventually generate references demonstrating him to be a convincing designer. Consequently, he can benefit from this situation when offering his services to potential client companies. However, he admits that offering services may necessitate his entering new areas of design, which requires learning by doing. Moreover, he does not believe he will be satisfied with primarily offering services, especially if he cannot become a peak performer within a small niche.

5.2.2. Creation of venture ideas

New perspectives continually arise as DEB sees and notices emerging aspects of interest. They are aspirations and visions of the future, but he does not believe that they will fully occur due to production and market-related reasons. Therefore, the starting point from a production perspective is ease of production and cost effectiveness, since these, among other things, enables production by subcontractors. Another starting point is the creation of products with a feasible market price, since it allows impulse purchases by end-customers. He has some prototypes already, but most products are still in the idea phase, waiting for him to find collaborative parties to help out in the production and distribution process. DEB sees it as challenging to separate entrepreneurial ideas from creative ideas. Overall, he generates fairly many ideas. Especially previously, he rather easily decided to exploit almost any idea that derived from his ongoing activities. After some time, he often noticed that the idea was not so good after all. Although creating many ideas, he admits that most of them are somehow bad, or more precisely unrealistic from a business perspective. Nowadays, he considers an idea from a business perspective before devoting more energy to enhance it. He reflects over how much the product could and should cost in the shop, and whether it has some value-adding aspects that the customer may distinguish. In addition, he considers whether the price is appropriate for the value-adding aspect, and whether customer demand can be stimulated by adding a product image. When reflecting over a specific product, he always starts by setting an appropriate price for it, before speculating over how much it would cost to manufacture and what kind of margin it would leave for him:
“Normally, before I devote more time to them, I consider if an idea has any commercial potential ahead. I consider how much such a product could cost on the shelf in the store and whether it has some profit perspective that the client sees in it. Is the price in line with this benefit aspect or with some added product image that increases desirability? Would the product and price be such, or I may think first on a suitable price for the product, and then I start thinking how much it would cost to produce. Following this, I would estimate if something would be left for me, if it would be even worthwhile to exploit.” (B)

This is the process through which he thinks over ideas, explaining also how he sees the relationship between business and design. Many of his ideas are commercially unrealistic, and some of them would require additional resources to reach profitability. The product development process can take years, but quite often he reflects for a short while over ideas in his head. Some ideas are forgotten for some time, but he always writes up ideas to ensure that he can return to them once or twice a month. These ideas can either be related to certain products or the planning of his business.

5.2.3. Resource availability

According to DEB, he recognizes his resource capabilities fairly well. Nowadays, when he has a family, the largest challenge is avoiding stealing time from his children. Hence, the available time is limited, and entrepreneurship may easily require time away from the family. Earlier, when he was single and self-employed, he sometimes used to work around the clock. First, he studied during the day, and then in the night he hired production time in a workshop. Consequently, now he wants to plan his entrepreneurship so that it is profitable and yet also that his family does not suffer. DEB was raised in a traditional Finnish industry town lacking all entrepreneurial stimuli. Nevertheless, he has since childhood spelled out his future vision and the desire to move towards self-employment. He wants to try entrepreneurship, and only if he is unsuccessful return to the factory gates. According to him, he could never forgive himself for not even trying his wings as an entrepreneur.

My aim is, as I mentioned, that I would be able to work with something that it is enjoyable to do. Work in itself should be a reward, via that you can reach commercial success, or actually, I see commercial success as a measurement of achievement.” (B)

DEB values creative capabilities as the core of industrial design, since they enable the understanding of target group needs and the creation of relevant information to satisfy them. It can be a severe deficit if a designer lacks a creative eye. In addition, ongoing education is relevant, since a pure gut feeling is no longer enough for design entrepreneurs to survive and succeed. He has always had a desire to learn new things and claims to have worked considerably more than needed while studying. However, he has realized that the normal study plan does not provide enough knowledge to become an entrepreneur in the field of industrial design. Therefore, he plans to continue to study in other fields. He wants to learn more concerning the aesthetic information that must be produced, so that products are appreciated within the specific target group. Hence, it is not enough to be a handicraft worker: you must be able to ensure that people also purchase your goods. He says:

“The motivation for creativity derives from inside, as does the need for self-satisfaction. In fact, I believe that I have already filled my needs for self-satisfaction at some earlier stage of my life.
If creation does not at some stage transfer into money, then the joy of making will also fade away in the end. In any case, it is something that cannot be put on one’s bread when hungry.”

(B)

Moreover, experience is important as it will assist in framing more precisely where and what he will start to do when self-employed. Previously, when DEB was a part-time entrepreneur, he planned to make larger investments in production facilities and rely fully on the income they generated when self-employed. Now, afterwards, he claims he is happy that he decided against it, since back then the excitement of youth may have led to wrong or unintentional decisions. After ten years of experience, he claims he has a broader perspective of the trade encircling industrial design. Although there are still areas he probably does not see, he believes he is now much more critical towards high-flying ideas than earlier:

“Especially when I was younger, I recognized or felt that I had unlimited amounts of energy. I was able to conduct all kinds of things. Now, when looking back on those things, they were the over-dimensional dreams of a young man. However, then I never experienced them like that because I knew that I could take care of these matters. Now, when I think of what my work could be, and needs to be in the future, they are, in a sense, larger dreams, and their accomplishment takes time. I still acknowledge pretty well the limits of my competence and energy, but the current dreams demand more time, and sometimes it feels it is taking too long. In that sense, I would like to see myself as more energetic in my daily activities.” (B)

DEB feels that the social network can probably never be broad enough. It is simply much easier to take care of matters with people you know. In addition, he has many times considered the benefits of obtaining a prominent and experienced colleague as a design and business mentor. That person would assist in developing his career, even if their artistic views did not always match. An age gap between the mentor and himself would ensure that they would most likely not become competitors, at least for a long time. He really wants to find such a person, someone who has plenty of knowledge and contacts and is willing to pass them on to the next generation. Such a colleague would be immensely valuable, and he himself could promise to one day transfer likewise his experience and knowledge to a novice:

“The contact network can never be too broad. It is a fact, and networks are in many senses necessary. It is easier to take care of things with familiar individuals. I have often felt that it would be good to get an experienced designer as a mentor, a little bit like in the USA. In a sense, this person would assist me, even if our artistic visions did not always match. It is a fact that such a person has an immense contact network.” (B)

DEB trusts that he has the competence to create contacts, at least to some extent. However, his current social network is not strong enough that he could just call someone to get a specific matter settled. Hence, he must work fairly hard to find the appropriate people, which is rather time consuming. Consequently, he sees the need to enhance his social network on many different levels. In line with this, DEB has many friends who are entrepreneurs and he has thought of ways to collaborate with some of them, since it is not possible to be an expert in all areas of industrial design. He has also participated in some entrepreneurship programmes to find like-minded people to collaborate with. However, he stresses the importance of being careful in selecting collaborative parties: they need at least to be people who it feels good and fruitful to work with. Intense collaboration requires often similar goals, but its importance depends varies if it takes place between entrepreneurs via networking or if it occurs within one
single company on partnership basis. Networking requires that parties receive similar benefits, or otherwise the relationship does not last for long. Currently, he is mapping potential people who possess experience and competence in areas where he does not. He really hopes to find a few such people, which would benefit everyone and also provide support for each other. At least for now, he considers that his personal resources are insufficient to establish a company alone. One person cannot alone take care of production, marketing, designing and take care of all the other duties. If he does still try it, then he finds it most natural to take care of design and marketing himself and outsource production.

“It would also be good if I find a suitable person who I can start operating a joint business with. I have to consider entrepreneurship so that I will not do it alone. One person’s resources cannot be enough for everything, like marketing, design and taking care of everything else. Perhaps if I try to market my own products, then I assume that I should design and market myself. It would be easiest to conduct production somewhere else, even if I do not know if that would be easy either.” (B)

For DEB, the optimal situation would be to gather a core group of people (design collaboration), which would have visions of what products are sellable on the market (producing aesthetic information). Consequently, he could provide the group with his knowledge and experience regarding industrial production and production processes. On the other hand, he would need the group to help him to find business contacts and create such relations. In addition, he does not have experience of marketing, especially outside the borders of Finland. However, he is confident of his potential talent in sales and marketing tasks. Hitherto, he has sought after collaborative parties only in Finland and has found it rather difficult to locate appropriate ones. There are some discussions going on, but nothing very specific at this time. He does not want to force the creation of tighter networks as he has seen how unplanned collaboration has ruined projects due to interest conflicts and lack of mutuality. In addition, he wants the collaboration to also involve some people with experience and skills from other fields, especially probably related to marketing. That said, the most important common feature between parties should be a joint vision.

DEB is striving to settle on a business idea which would not require immense amounts of financial capital when initiated. Eventually, when the company has resources, he would be ready to add more capital-intensive ideas. Realistically, he points out that he must start from somewhere and it is probably impossible to do everything at once. In line with this, he is not planning to invest from the start in his own production equipment. Instead, he is seeking to produce the prototypes and models in his own studio, but will outsource the actual production. Consequently, DEB values a good income as one important motivator for becoming an entrepreneur. However to operate a business which is of the size that creates a good income requires collaboration with others. Currently, he is working towards a business idea which will not be capital intensive to initiate.

5.2.4. Execution and modes of exploitation

Based on his previous experiences from home (his mother works in handicrafts) and from working in a business incubator, he suggests that the process of bringing products
to market may involve some artistic features, but the overall process is strictly about entrepreneurship. He has asked people, “Is this really profitable what you are planning to do?” and, especially among handicraft workers, the response is commonly: “This is a lifestyle, and the outcome cannot be measured monetarily”. To this, his response is: “Is it a lifestyle when you get hungry?” Consequently, creativity should be envisioned as part of the entrepreneurial process, which at least aims at monetary profitability or considers the commercial aspects. He claims that as long as he is enforced to work for a living, he will never accept the thought of working with something merely for the joy of it and regardless of the compensation. Hence, work for him as a designer does not start from a kind of artistic cloud which only might end up in some kind of a commercial breakthrough.

Although, he enjoys working with his hands, he assumes that there is not money to be made in producing own products as handcrafted items. Then, he would not have time to market his own products. Instead, he aims at targeting a specific client group and creating products that should be designed and marketed to them. In that light, design and information production are regarded by him merely as means for carrying out business activities. The set goals should be regarded as commercial and not creative, the latter is just the instrument:

“I like to work a lot with my hands, but I do not believe that a profitable business would derive from it if I start to produce myself. My interests are in certain target segments and what products are designed and marketed to them; then, my main interest should be in designing and also in creating marketing information for them.” (B)

DEB believes that both dreams and visions are related to certain paradoxes in life, but they are important ingredients in individuals’ endeavours to progress. His previous work experience has taught him that giving up these ingredients makes people slowly pass away. Consequently, he wants to ensure that he has new goals the moment he reaches the previous ones. Goals keep the individual alive and somehow displeased with the current situation. The goals as such are not particularly important; they could be entrepreneurship, buying a car or something else. Goal orientation and desires are an endless chain throughout life, and this is something that needs to be accepted. On the other hand, one must be ready to accept working with something less interesting in the endeavour of fulfilling dreams.

Nowadays, DEB has a family to support and he feels that it would be easier to become self-employed while working for someone else. This is because it would take some time to gain positive cash flows if he jumps straight into entrepreneurship. Accordingly, the ideal situation would be to become employed and to work with tasks that enhance his personal competences both as a designer and as a business operator. DEB believes that at least partly he will be able to work with tasks that he enjoys. However, impulsiveness is not part of his personality. Instead, he would like to build the business concept for as long as possible as a part-time employee before relying on it financially. Thus he can consider the products and services, distribution and marketing channels and target groups, etc. At that stage, he must be able to receive a living from it:

“I have to do something that brings the money home, and my work picture must result in something that I can obtain a living from for myself and my family.”(B)
He realizes and accepts the risks attached to entrepreneurship but wants to be able to keep the level of risk at a sensible level. Consequently, his critical nature has slowed down his current entrepreneurial process, but on the other hand he has not played himself out due to hazardous risk-taking. Formerly, being an entrepreneur on part-time did not involve too much responsibility, but instead enabled him to express himself and conduct things that brought the pleasure of accomplishment. On the other hand, back then he was never forced to seriously consider the customer perspective.

“Self-employment always is associated with risks and I realize and accept that. However, I would not like to see myself in a situation where I take a large loan. If the business fails, I would be paying for it for the rest of my life.” (B)

DEB believes he has a good starting point for an entrepreneurial career related to industrial design due to his education and experience from working with specific materials, production techniques and industrial processes. In addition, he claims he knows fairly well how product-related costs are formed and how to produce commercially profitable products. He plans to set up a business which does not only offer design services. Instead, he would combine it with seeking to get his own products to markets. For him, it seems particularly important to gain a stable cash-flow and a constant basic income. Thus, a combination of services and his own products would support each other and hopefully ensure stability.

5.3. DESIGN ENTREPRENEUR C

Design entrepreneur C (DEC) offers product and furniture design on a freelancer basis. In addition, he develops his own product-related ideas. He has an international industrial design degree (MA) and a design degree (BA) from Finland. Previously, he has worked in a few companies around Europe, for instance as a design manager. He returned to self-employment in the autumn of 2004 since he was unsatisfied of being an employee.

5.3.1. Reasons for self-employment

After graduating, DEC stayed abroad and started to work as an assistant for a foreign industrial designer. It was much easier to find employment abroad than it would have been in Finland, since most of his contacts were in foreign countries. He simply did not know what was going on within the field of industrial design in Finland. Working for a year as an assistant taught him the practices of trade and enabled him to become a freelance designer for a large international interior design chain. After a while, the client company decided to hire DEC, even if he at first felt it to be risky to stop working for other companies. It was probably the financial aspects that eventually made him agree to become an employed industrial designer and later on a design manager for the same company.

As a freelancer, he designed various smaller products, but as an employee he became responsible for a certain product category. Initially, he had little experience of designing such products, but it was not a serious matter since the products were mainly designed in close collaboration with subcontractors. Consequently, market-related knowledge and marketing became much more central, and the producers took care of production logics
and assisted in improving design-related features. In that sense, he was able to focus on various product-related details, such as features, materials, price and the products’ overall appearance on the markets. According to DEC, he quickly learnt the secrets of the design process and was soon an expert on the chain of designing and manufacturing within the specific product category. However, he started to realize that he was losing track of what was going on in other product categories and on the market more generally. Suddenly, he decided that he had enough and resigned. After being employed for almost five years, he was suddenly without employment. Then, he applied some competitors and realized that there are actually rather few companies that he wanted to work for. Consequently, it became clear that it would make sense to start designing products as a freelancer instead, with the particular aim of working solely with carefully selected companies. His previous employer wanted to continue collaboration on a freelance basis, and he also had a large number of contacts in various field-specific companies and people:

“First the idea was that self-employment would not be permanent, just a sabbatical year or so from corporate life, but after a year it feels more and more lasting. I am afraid that there are really no alternatives to self-employment. I am no longer able to return to work for someone else. I would be bored immediately, or the problem is my company experience: during the first years, there was a great team, and then I saw what employment could be at its best. However, then it unfortunately changed, the business and people started to split into different new work tasks. If money were the only thing that mattered, then I could stay in full-time employment; now I have realized that it is boredom that I do not want.” (C)

DEC became fascinated with entrepreneurship because, while being employed full-time, he had no time to work on his own design projects. He had collected various product-related ideas in his drawer and was eager to develop them further. Now he realizes that it takes a lot of time and effort to develop one’s own ideas into sellable products. He sees it as most enjoyable to work as an innovator: to map and idealize new products, product ideas and concepts. Nevertheless, DEC describes the process of becoming self-employed as unconscious. Even if he feels self-employment is rewarding, it also involves some challenges. For instance, the current workload from two large clients leaves no time to develop the overall business. He appears to be satisfied with his current situation and has high hopes for the future. If earning a good salary would be the object, then he would stay externally employed. He believes that it is rather common in the field not to be very purposeful or systematic, which is associated with the creative orientation and perhaps with a fear of commitment. For him, change seems to be central, since otherwise he becomes easily bored. He does not particularly like this personal feature, but finds that the present variation in work assignments and working with new clients keeps him motivated. He dislikes boredom and strives constantly to fight against it by finding interesting things to work with. Consequently, there are smaller risks of disappointment, or of acknowledging having made a wrong decision or similar. Another reason is that, at least when he was studying, there was really no such thing as a business education for industrial designers. DEC finds this to be rather peculiar, taking into account how many designers become self-employed.
5.3.2. Creation of venture ideas

According to DEC, in his daily activities he has his antennas somewhat constantly out, so to speak. Thus, he constantly reflects when reading, following the surrounding world and his own activities how these things relate to his own entrepreneurship. Similarly, he also looks for ways to either develop his own activity, or understanding of how others accomplish things in contrast to him. Compared to his previous employment experiences, he claims not to have compared his own activities with the surrounding world as much, or thought of how to develop it. Now, business ideas seem to emerge much more regularly, and even a little bit disturbingly “What if I would start to do this?!”. He describes this as if he is a “garage entrepreneur” who is flying from one idea to the other. Regardless of that he seems to find it important to scan his surroundings for “What is in it for me, what could I get from it and how does this affect my current projects?” Hence, there is a need to constantly reflect upon the environment for business-related things that are happening, which is in a sense associated with design work. Industrial designers must also look for potential new market areas, new products and other such matters. Such issues seem to be strongly present. In addition, he regularly follows what is happening to businesses, as some are launching new products and others sack people, etc. Moreover, he claims he is constantly searching for good companies or people to start collaboration with. He describes this as constant creativity, a search for his own path or direction which is unconsciousness and not written in his notebook. Instead, everything is floating in his head and washed away after the next phone call. Consequently, his entrepreneurial thinking is not very purposeful or systematic.

DEC observes his surroundings to find product-related ideas. He regards it as important to read news from all kind of fields and to broaden the understanding and knowledge. In addition, he finds it central to know what other industrial designers are working on, although this contradicts with the traditional thought of keeping a clear mind as an industrial designer. Pieces of ideas derive from the strangest connections, but they need to be brought together into complete entities. His idea generation is assisted by his experience from working with a broad material range. Consequently, he can effortlessly recycle or look outside his own industry for ideas. In addition, he has his personal preferences which direct what kind of projects and ideas he is willing to work with. He claims he has his own design language. He likes simple, functional and straight-lined design as well as more decorative design. In addition, he also reflects over the space in which other articles and the specific product will be placed. Pretty soon, he realizes which objects go together with which, and this insight begins to direct his idea generation. Evolution plays a central role: one should look at what has been done earlier or in other industries and then reflect it into your own sphere.

“It is easy to start asking for whom the product should be, and for what price. I have determined that in the idea development phase a good question is: ‘Would I buy it myself?’ By asking that of myself in the idea phase, I do not consider at all the price that I would be prepared to pay, only if I would like to have it”. (C)

Sometimes, he has thought that the initial phase of product development is the most pleasurable. For example, after seeing some good product concepts an exhibition, he is able to develop them further and improve the original idea. After that, he would gladly
hand over the project to an assistant who would be able to read his mind and vision. He admits that the excitement disappears surprisingly quickly, and the implementation phase is already mind-numbing. While being externally employed, he found it somewhat frustrating to update certain products after 3-4 successful years of sales, just because the sales were slightly dropping. Consequently, instead of just updating he decided to attempt to improve one or more aspects of the product related to client usability, retailing or production. Due to the potential benefits, he could justify the need to redesign these products. At first, he was confident that improvements should always be client-focused, but then he realized that they might as well be focused on improving retail or production features:

“Design has always been a schizophrenic field regarding ethical issues. It is said that designers have a responsibility. At some stage, I opposed this: we are just small ants as anyone else in the wheels. We have no power, and we cannot decide on these issues. Purchasers have a greater power, and in the end, their management decides upon company policies.” (C)

5.3.3. Resource availability

DEC does not know how creative he actually is, but for some reason he has a strong trust in his creativity. He trusts himself to have the necessary capabilities to find a good answer and produce quality in given design projects. However, he is not sure if this is simply a delusion, but finds it nonetheless exciting to compare his creativity with others. His belief is that his creativity is in fact better than many of his colleagues, which he supports with his broad experience and results achieved. Confidence in his creativity is related to his experience of using it:

“Artistic talent, or let’s say creativity, I do not know if I am really all that creative, but for some reason I have a strong belief in it, I trust in my own creativity. The confidence is based on my experience of using creativity and from receiving professional and customer feed-back on it.” (C)

In contrast, he has limited experience of entrepreneurship and of promoting his services. For instance, he has discovered that in order to be convincing, the presentations must be of high quality and updated constantly, something that he did not need to consider as an employee. On the other hand, back then the employer forced him to become skilled in time management, which has proved valuable now he is self-employed. In addition, for DEC, education is central. He has graduated from one of the best industrial design schools in the world (gaining a Master in Science). His education gave him considerable confidence in his capabilities as an industrial designer and opened many doors internationally. Before studying for the master’s degree, he graduated from a Finnish bachelors programme in industrial design. The practical skills from that programme have turned out to be really important for his career.

“At the Finnish polytechnic, I learnt basic skills in operating machines and computers, as well as constructing prototypes by hand and so on. They taught theory poorly, but I learnt these basic handicraft skills. Afterwards, this was actually good, since it enabled me to become an assistant more easily when I had these skills. (C)

Currently, DEC has his studio in Helsinki, but his family lives in the countryside some 100km away. According to him, creativity suffers from being in isolation on the
countryside. In the city, there are exhibitions, book stores and other people. In addition, at home he has an office for weekend usage, but working there does not feel the least bit enjoyable. One reason is that he would like to have someone to have small talk with, the more noise in the surrounding the better for efficient working. The problem is that most Finnish industrial designers are located in Helsinki, which enables spontaneous business discussions and social activities with other likeminded. During his studies abroad, DEC was able to build an international network with industrial designers. In addition, working as design manager provided him with personal contacts with additional designers, producers, retailers and so forth. As a result, he has a broad international network which he strives to maintain contacts with. Some of these contacts are strictly professional, whilst perhaps one day even some of the less formal contacts, too, will result in joint projects.

“It is most important in that sense, since at the foreign design school, where I created my network, it became highly international. People left from there in different directions. With my former employer, I learned to know company internal and external designers, so I have a broad international network which I maintain contacts with. Some I keep in contact with professionally, and with others just for the sake of it; perhaps one day we will do something together. Overall, it helps in staying alert when I know where the industry is going and what is happening; small pieces of information give a complete picture of where the world is going regarding design. One never knows how old connections may feed you in the future.” (C)

In general, he stresses that contact-keeping truly helps in staying alert to changes on the global scale, where and what is currently going on. Having a broad network has helped him immensely, even in finding work opportunities. Similarly, he assisted other designers that he knew while working as a design manager. For example, he tried to find work opportunities for them. In like manner, people he knows have given him work opportunities. He admits in fact that most of his work tasks have derived from friends, or friends of his friends. In addition, his name has started to become familiar among certain potential customers, so in addition to third party trust relations, the personal reference list is starting to promote itself. Peculiarly, DEC has well-established contacts on the international level, but lacks to a certain extent contacts in the Finnish context. He sees the need to really start establishing contacts here and to build a network, but his own social activity seems to have suffered from his business. He sees the need to book time in the calendar, for calling around and inviting himself to drink coffee with domestic colleagues. Overall, DEC believes he has an easy-going, social personality. However, he assumes he is really bad at telling anyone bad news, or talking about money. For example, while working as a design manager, he found it hard to negotiate prices and reject products that especially external freelancers suggested. Hence, his heart was often more on their than the company’s side due to his own background as a freelancer.

DEC has recognized entrepreneurship in his daily routines as it has suddenly become necessary to guard cash-flows in a totally different way than before. Some of his colleagues recommended a bookkeeper who assists in financial matters, but he is still forced to look after his personal expenses. This is something that he never needed to consider while being employed and earning a stable salary. He underlines that money was never the reason for becoming an industrial designer in the first place. Instead, he claims he is happy with enough money to live a decent life. Nevertheless, financial capital will become rapidly necessary if he decides to start his own production or to
employ people. Working as a freelancer does not require money as clients pay upon delivery, and he has no other expenses than the rent of the studio and his PC. He could continue to work like this until retiring, but if he wants something more business-wise, then he must have the courage to apply for a loan in order to finance the change. DEC admits that he would have the means, but so far he has perhaps not had the courage to invest more in his business. It is just so much easier to work alone on various projects than run a business with employees. Being responsible only to himself and keeping the costs of living low ensures that a small income is enough to survive.

5.3.4. Execution and modes of exploitation

DEC looks positively into the future and seems happy with all the projects at hand. He claims to have many things to develop and his business operations have true possibilities to improve. However, he admits that there are things to work on and that he gave himself three years to discover where entrepreneurship will take him. Hence, he will not accept his career choice as a hobby, but demands a reasonable monetary compensation from it. This year is already much better than the previous one, but currently he lacks an economic target which he could aim to reach next year. Hence, so far he is more concerned with working with nice projects than looking at financial issues or business development as such. In that sense, he has been drifting more than keeping a clear direction and purposefulness in mind. In contrast, he has started to deliberately work towards a transformation of his business focus towards a more long-term perspective. According to him, it would perhaps be good to stand back from his work, and see how to develop the business and in which direction. It is far too easy to just continue as before, so in that sense self-employment involves similar risks to being employed. Hence, there is a risk that DEC after a few years will still work for the same clients with similar projects. Therefore, he recognizes the need to really look over aspirations and in what fashion these may be reached. For example, he suggests that designers should look broadly, and into entirely different sectors, as that may enhance their own creative and entrepreneurial thinking.

“To work here and now is easy and to think in short term, but so far I have not been able talk about three-year-long assignments. During the past three months, I have not had time to develop this at all. How could I systematically develop the exploitation? What if I were to stand back a little bit from my position and consider how my business should be developed and in what direction? That kind of thinking is difficult. It is very easy to become trapped doing the same assignments. Here are the same dangers as the ones I cursed about in full-time employment. There is a risk that after two years I still be continuing to work with similar tasks for my two client companies. I should really consider what my goals are and what I need to develop in order to reach them.” (C)

Hitherto, DEC has not systematically promoted the business, and most work tasks have more or less fallen into his lap. On the other hand, he has actively discussed with people in the trade at exhibitions, which has opened up work opportunities. More systematic business promotion does not demand overwhelming skills, but for some reason it appears hard for him to imagine this. All the same, he believes he could do so much more, for example, by making a list of ten companies he would like the most to work with. After that, he would do everything in his capacity to capture them. In addition, he needs to consider how broadly he wants to work, both regarding design and
geographical location. Moreover, he could work in different ways with various companies, for instance, as a representative, a consultant or a pure designer. It might also be wise for him to visit Asia four times a year and conduct projects over there. Another option would be to close his Helsinki office and work only from the countryside, which would free money to travel every second week to London. On his future, he says:

“Currently, I lack a long term strategy for building my competence into a sellable service which could be explained in two phrases to a stranger. In addition, it seems as if many people don't have a clue what a designer works with, especially in Finland.” (C)

So far, the most challenging issue has been to ensure continuity, which in turn would provide a stable income. Consequently, it seems relatively easy to work on a permanent basis, but long-term planning is much harder. There are various business options, but he should just consider what he wants to do in the future. On the other hand, he is now a family man, which restricts his ability to travel freely. Nevertheless, he has no plans to stop travelling as much as possible, both as a personal pleasure and professional necessity.

DEC enjoys being a freelancer and working based on hourly pay. The work gives him satisfaction when he sees that a product is good looking and it is nice if it reaches the markets. However, he feels that involvement in production would be even more satisfying, since then he could take the development process even further. Perhaps his dream would be to have a firm with around five employees, and he would be the creator. The atmosphere would be good, the telephones ringing all over the world and things would be happening. That is perhaps his dream, but when he met a famous colleague who has it, he got second thoughts. That company is extremely busy and they constantly work against tight deadlines and are stressed. Thus, the dream could also be to continue designing alone, lecture and participate in exhibitions. Somehow, he has a desire to keep things not stressful, without too much rush. Overall, he seems to find it challenging to state where he would like to be after five years, but he certainly wants to continue to travel all over the world, something that freelancing does not supporting very well as no one pays for travelling expenses.

He claims that expanding the business by increasing assignments with the existing clients is probably not possible, since then he would be competing with the clients’ internal design departments. As long as he works alone, he is regarded as an extension of the internal design department, but creating a design agency would transform him into a competitor. Another option would be to start collaboration with some of the international subcontractors that his clients are already using and he knows from before. These subcontractors could produce and distribute products designed by him on a global scale, and the present clients would have sales rights in their own regions. This would be beneficial for all parties and would not compete directly with his present clients. If DEC were to work closer with subcontractors, his present clients could save time and resources in their own product development processes and split development costs and risks with operators in other market regions. Hence, the initial cost of design and production are supported by scale effects, which are not easy to obtain in the furniture industry (except for the like of IKEA). This kind of scheme would increase his royalties, since it would be based on total sales volumes regardless of product destiny.
Consequently, it would be much more profitable for him as a designer to operate directly with international producers than with regional purchasers. Currently, such business activity from designers is not very common, but it is constantly increasing:

“I feel that I should have a certain amount of royalty based products on the market. These royalties would constantly yield a certain amount of money, in addition to the projects at hand. There would be a balance between how much is received based at an hourly rate and how much on a royalty basis.” (C)

DEC will be pleased when he has a certain number of royalty-based products on the markets. Then, the royalties will bring a stable amount of money in addition to current projects. He needs to start suggesting his own product designs to potential client companies in order to generate more royalty-based contracts. Such contracts require that the product derives from the designer and is not created based on a customer assignment. Thus, it would be important for him to set enough time aside to develop product designs that are entirely his own, which he should then market to companies with large production and sales volumes. In that sense, with a decent set of royalties it would be financially bearable to work with a few selected projects. However, he admits that it is challenging to agree on feasible royalty based contracts.

5.4. DESIGN ENTREPRENEUR D

Design entrepreneur D (DED) brings her own products to the market, involving clothing and textile design. She is an industrial designer, and has been educated as a product technician. She became a self-employed artisan as early as 1986 due to the risk of unemployment and for family reasons. From the mid-1990s until early 2000, she developed her own product-related idea, primarily as a small side business. Eventually, she decided to quit artisanship and put all her available resources into bringing her own products to the market. In 2000, she started a new company to support the new business focus and has started international sales.

5.4.1. Reasons for self-employment

In the mid 1980s, DED was faced with a tough and provoking truth. The previously flourishing industry she was working for in the surrounding metropolitan area of Helsinki was about to dry out. She had worked for almost twenty years as a material specialist associated with production, and now self-employment was the only alternative to continue working with her profession. Her previous education had supported her career development thus far, but she had no knowledge or experience of starting a business. Therefore, she decided to attend a special business course for design entrepreneurs before she founded her first company later on that year. She explains as follows. The initial idea to become self-employed started to develop after listening to the same needs from several different people in the local community. The business exploited her craftsmanship and was operated during the first years from their family home. In that way, she could work and look after her three small children at the same time. Consequently, the step to becoming self-employed was made easier due to the increased time she was able to spend with her children. In addition, the decision involved some immediate cost reductions from previous work-related travel expenses
and childcare costs. Life became more manageable. Becoming an entrepreneur was not straightforward, but more a conscious and sliding process. DED claims that, at the beginning, she cut down on her artistic desires in order to earn a living as a self-employed craftsman. Work was not always that much fun, but it brought the finances that enabled development of other design-related projects. Back then this was something that she had to accept if she wanted to continue working within her profession:

“Designers should be in a sense humble in their process of creating a livelihood, and do things that perhaps are not always felt to be rewarding. This will allow a basic income so that you can develop other things. One must be humble and do things that are not always so rewarding.” (D)

Over the years, she has been forced to teach herself to limit her own personal desires when conducting professional design. For example, she is personally a fan of clear and clean colours, but their share of her sales is just a few percent. So, to enhance sales, she has forced herself to learn professional colour design and sought for skills related to that. It is essential that professional designers distinguish those of their artistic leanings which may not necessarily function commercially. In that sense, teach themselves to see the difference, but there is not necessarily a need to desert one’s principles entirely. When working professionally you simply agree with yourself that you do not like a certain colour, etc., but because it sells so well it must be incorporated. According to her, this can be really challenging and requires that she really shuts out her artistic thinking. Instead, she must learn to think: “This is the colour range which is needed and that is the starting point”, which then is pure work and not art at that stage anymore. Furthermore, DED claims to have a love for searching for information. For example, she was so fascinated with a particular material that she went through all sources for field-specific knowledge. After long discussion with professors and reading everything written about the topic, she eventually knew the chemical basis for the raw material exactly. Consequently she started to test it and eventually invented a new way of treating the raw material. The process towards an international patent was by no means intentional, but driven by her enormous desire to learn more about the material she loved. She says:

“I would do, in quotation marks, “the same thing to some extent, even without a salary”. For sure, it is like that and I get pleasure from it. I cannot say it better than that everyone has their own path, but one’s own place is not found in an instant, nor is the obsession that you take as your own. One must seek for it for a long time, seek years for it.” (D)

During a normal working day, DED has time to do a lot of production, but then there are days when she is occupied with taking care of operative business-related tasks (customer, supplier and subcontractor contacts, etc.). Consequently, she strives to organize peaceful production time for herself, for example, by checking e-mails only in the morning, lunch and in the evening. Recently she has been able to give up service provision as a craftsman, and, instead, focus all her efforts on her own product range in association with selected supportive companies. These companies assist in preparing raw-materials and in series production. She claims to be most interested of working with fabrics and product development, and, more specifically, not only with product design but more broadly with creating products out of specific fabrics.

“I have my hands on the material, this is product development in a broad sense, not only design but also production of the raw-material. I like it in here, I could shut the door, not answer the phone, and I would enjoy it perfectly well alone. I would not need to see anyone. I have the
spell of the material world so to say. That would be it. Someone else could be in charge of sales and everything else.” (D)

5.4.2. Creation of venture ideas

According to DED, ideas normally start to develop after listening for a long time to similar needs from several different clients. Nevertheless, her major product-related innovation emerged after she decided to take design courses at the University of Arts and Design. During her studies, she was encouraged to reflect on her previous experience and education, and, particularly, how these could be turned into a new product idea. Consequently, DED realized that her competence mix was also rather uncommon internationally. Hence, her personal strength was in a blend of two entirely different product worlds. From that starting point, she started to seek for more information to gain ideas about what specifically could and should be merged together into a new product:

“The product related idea was not finished then, but I received professional assistance in identifying the business concept. So the business idea developed back then.” (D)

At that point, she asked her existing clients what they were missing in relation to combining these materials. She made a thorough strength-weakness analysis based on the understanding that it would be impossible to work with a wide range of raw-materials. The aim was to introduce a new product which would be possible to produce into stock and trade via retailers. Hence, it would then balance with her season-orientated craftsmanship that focused on servicing local consumers.

Although the initial product based idea has developed since the start, the basic innovation has lasted all these years. DED continues to update the product range, introducing new fabrics, new colours and other essential factors, but the basic idea has remained the same. It has proved to be a good product innovation with a certain market demand. After the first prototypes were completed, she started to think about, develop and create ideas concerning how she could improve the product’s features and increase customer satisfaction. The process started with her interest in finding ways to develop her own product, but it transferred slowly into a deliberate patenting process, after she began to realize the innovative nature of her discoveries. Consequently, the innovation was born partly by mistake, because of her enthusiasm to explore and her educational background. In 2000, the patenting process began officially, and in 2001 she received the first draft of it. However, she was forced to patent it again on the EU level there were so many change requests on behalf of the bureaucrats. During the patenting process, DED found support for developing her patent from various patent agencies and from all kinds of talented people who she came across.

After working for some ten years with selling products to various cultures, she claims she already knows fairly well what should be considered in, for instance, Scandinavia, Europe, Russia, China or Japan. Then, there are elements of her products which suit any culture well. Timelessness is important for the life-cycle of the product, as clients seem to be ready to pay if products preserve time and stay fashionable.
5.4.3. Resource availability

According to DED, a solid professional background has been a central resource in creating the business, in addition to an adequate and broad basic-field-specific education. Additionally, she admits to having been lucky as she was employed immediately after finishing her studies. Today, it is more challenging to find work in the field, and people are more or less forced to start off as self-employed without any practical experience.

DED is focused more on the technical side of industrial design than being a pure artist or designer as such. Perhaps, therefore, she has always had the goal of collecting knowledge and information. She has studied before and throughout her entrepreneurial career in order to constantly improve her competence and skills related to the business and the product line. One concrete proof of her interest in increasing her knowledge is the international patent she received in 2001. She felt a desire to collect information and was extremely motivated to absorb information from the surroundings. DED found it important to consider how she could become specialized in working with specific materials and develop her own skills around that. According to her, it is important to consciously develop and collect competence resources, which are in line with bringing maximal value-added effect to the expensive raw-materials which are used in the production process. Hence, in order to receive a price that covers the high production related costs, it was particularly important for her to develop an exclusive product. According to DED, she has benefited considerably from her basic education when it comes to product pricing. From the beginning, she was aware that, in order to earn a living, the price and costs must be at the right level. However, she is disappointed that the design education today disregards pricing questions, perhaps because it is not “acceptable” to talk about money. Price information is not generally shared openly at exhibitions either, something that she has had to learn via trial and error herself. Experience teaches one how to behave at fairs, and one thing is that prices are not general information.

Consequently, DED argues that the process of becoming self-employed within the design industries requires that one has an interest in the line of business, and importantly, realizes what the specific line of business is. It is also desirable that the individual has a relatively solid and broad basic skills base that is suitable for that line of business. This in turn allows testing and trialling of various ideas. Since the first moment that DED worked in her occupation with her raw material, she was immediately carried away, knowing that this was her “own material world”. The movement from being a designer to becoming a design entrepreneur follows a certain growth process, which no one else can provide. In order to stimulate her progress, DED has constantly educated herself ever since she decided to become an entrepreneur. All these years, she has been involved in various education programmes, either related to business or professional knowledge. Joining these programmes has enabled networking with other people that have similar situations. This in turn naturally gives her strength to carry on with her own business.

The slide into entrepreneurship made it easier for DED’s family to accept her long entrepreneurial hours. Her husband became an entrepreneur himself at the same time as she did. He has been able to assist her work from an entrepreneurial viewpoint, and they
share the same set of values. Naturally, in addition to family she also has friends, but the
development of her personal social network has been somewhat limited due to her
average 65-hour working weeks. The contact networking in relation to her business is
also of importance for her personal wellbeing. For example, years ago on some
entrepreneurship course she met a business colleague who she is constantly in touch
with. In addition, she deliberately strives to build and maintain her networks by working
intensely with specific associates. Naturally, her business involves considerable
logistics between activity points (e.g. suppliers and subcontractors), but all the same, the
relationships are largely built on personal collaboration and mutual trust. In order to
build team spirit, she has actively worked on contacting, selecting and assessing
potential collaborators:

“Now, when my business operates in a network and many work tasks are outsourced, I become
occasionally stressed by time schedules. It takes a lot of time to ‘herd’ such a business model, to
ensure that everything is in place. Finally, I have been able to build a structure that functions.
These networks and logistic chains are not built in an instant.” (D)

For example, she has over the years got to know a specific person who works for one of
her suppliers who has the same life values, willingness to develop the relationship and
collaborative desire as she does. Although most relations are strictly about business,
some are more collaborative and a few are based on friendship and mutual appreciation.
In the deepest relationships, she feels no need to hold back with information, and shares
mutual respect with regard to competence and confidentiality. However, at times she
has not been able take care of subcontractor unresponsiveness. On the other hand,
experience has made her consider various worst case scenarios and ways to overcome
them. Nevertheless, long-term planning of deliveries still seems to cause last-minute
stress due to the involvement of many parties in the network structure:

“In principle, I have been in that situation several times. For example, last summer production
by one subcontractor stopped because their employee quit. I heard that she had quit, after I
came home from an exhibition in Milan. There was nothing else to do than produce the entire
summer myself and teach a new employee of that subcontractor. In practice, it meant that no
sales work was done, instead the focus was on serving the existing customers.” (D)

DED admits that, from a business perspective, her choice of raw material was partly
based on false assumptions. The specific material is not as easily available in Finland as
she had first thought. Finland is one of the leading producers of such raw material, but
most of it is sold to foreign purchasers. This considerably lessens the benefits of being
close to the raw materials source. Consequently, it took much more effort to build an
appropriate supplier network and organise the logistics than she had previously
anticipated. Today, she seems to be pleased with her trustful relationship with her
suppliers. On the other hand, the main supplier of another raw material has occasionally
missed deadlines badly on deliveries, but in general she describes the situation as good.
DED finds it somewhat challenging to operate with considerably larger raw material
suppliers, for whom her company’s demand is tiny. The long business relation with one
of the suppliers has resulted in a deal where they produce and store 2-3 orders, and she
pays just for the amount requested at the time.

In the beginning, when DED became self-employed, she had almost no financial capital
to invest in the business. On the other hand, the trade back then constituted of service
provision, which did not require any significant amounts of financial means. Instead, resource needs were mainly based on her competence, since customers paid at the same time as they picked up their goods. Many years later, she was forced to start considering financial structures in order to fund the growing business around the product innovation. Over the years, there have been occasions of balancing and the business has grown step by step. In the beginning, when launching the product innovation, it was more a question of living from hand to mouth, especially regarding the purchasing of raw material.

Along the way, she has used various smaller external loans, but the lack of capital has truly been the limiting factor of business expansion. Therefore, the capital for growth has been collected from her various sources of income. On the other hand, DED admits that it might have been in a sense a good way to proceed. Major mistakes have been avoided, since there has simply not been the money to make them. Hitherto, the shortage of financial capital has been most visible in production and the back office, but not so much in the marketing. Hence, the demand has covered the supply well so far. Financing is not easy to come by:

“The limiting factor for market efforts has very often been a following demand peak, which has resulted in suffocation in the production. I see that I could have built at a faster pace, but who would be interested in my business among the risk financiers?” (D)

In general, she claims that most financiers are not interested in investing in her business because it operates in a ‘non-trendy’ field and is operated by a single entrepreneur. Due to the lack of capital, she believes that it has been harder to make the business international, and she has been forced to abandon some product ideas. Just recently, she has registered her business brand as an international trademark. The process went smoothly, except in Russia where her local contact had registered the name earlier. Now, after a court decision, she has lost a good trader, but won the battle for the trademark in Russia. The registration costs as well as the patenting process per country are of course an investment. DED feels that it is still challenging to operate internationally due to currency fluctuations. Hence, she has lost both margins and customers due to rapidly changing currency rates:

“I experienced the Dollar crash two years ago, when the exchange rate was at its worst over 30% against the Euro. I had sold to Russia orders, during the previous spring exhibition in Milan, for an exchange rate of one-to-one. Therefore, the 30% loss was the entire sales margin. Nowadays, I strive to sell only in Euros, which generally works for the Far East, Japan and China. It works with small resistance also to Russia, but for the USA, it is useless to give price information in Euros.” (D)

5.4.4. Execution and modes of exploitation

In 1992, Finland was in the midst of a deep depression, which strongly affected the demand for DED’s craftsmanship. At this point, she was faced with a hard decision: whether to close down the business or to find some means to ensure its survival. As a result, she decided to test her new product innovation on the market. This turned out to be a significant step towards a slow change in the business focus. Consequently, she participated for the first time in a national exhibition, but surprisingly it was only foreign customers who placed orders. This was the beginning for small time sales that
peculiarly turned out as an export business. However, this was a rather big issue for DED, since she lacked all experience of foreign trade and, even more crucially, still today speaks no other languages than Finnish.

After the initial market launch, DED continued primarily as a local craftsman for many years. The livelihood brought a basic salary, which in turn enabled a small scale development of product related ideas. However, her own product sales remained a minor side business, although it was evident that there was motivation on DED’s behalf to develop the business further. Slowly but steadily she increased her capacity and eventually started to consider how to reach her customers more efficiently, both product and business-wise. After talking with her domestic retailers, she realized that it was mostly Japanese and Russian tourists who purchased her products. Consequently, in 1995 the product was introduced for the first time at an international fashion exhibition in Japan, which ignited the sales and started to provide a small but steady stream of orders. Although the idea to change business focus was first shaped in the late nineties, it was only a few years ago that it was able to actually take place. An important and conscious step towards this change had already been taken in 2000, when a new company was established:

“It was only very recently that I have been able to clean away this consumer-based furrier business and focus completely on my own products” (D)

The original business idea, to focus on a combination of the specific materials, proved to be good. It remains today the product that generates the major share of the turnover for the company. Nonetheless, a lot of work is invested into updating and maintaining the product line. Accordingly, to survive on the international markets, the quality must be cutting-edge from all perspectives. DED claims that one must be the peak performer in the small item that is produced, it must be the best. Then, it is possible to receive such a price that production becomes sensible. So the product quality must be excellent, but quality also includes much more. It is not only the physical material and work quality, but more specifically delivery assurance, time schedules, contracts and keeping the operation together. Personally, DED has recognized the importance of living up to agreed delivery schedules, as a good client relationship is easily destroyed by late deliveries. Long-term customers forgive more, but generally it is important to live up to promises:

You are responsible for your own actions. From all the comments I have heard, sticking to schedules in deliveries is one of the most essential things, and that is where customer relations can be spoiled. If it is a long-term customer, much is forgiven and this adds flexibility, but commonly keeping delivery promises is crucial. If there are late deliveries of ordered goods, then it is basically an ex-customer.” (D)

Currently, DED is striving to develop her business so that its number one product is known as a brand internationally. The product range consists of a certain palette, which allows tailoring according to customer demand, but she avoids this as much as possible due to increased costs and customers’ unwillingness to pay extra. So far, she has experienced some copying and one trademark fraud, but not to any greater extent. She is concerned about the risk related to copying, and explains that the only possibility to fight it is to ensure constant development and product superiority. In addition, she is working hard on making the logistics and the production network function more
effectively. Many times, she has been forced to focus on solving production-related problems, which has in practice implied no sales promotion, merely caretaking of existing clients. So far, the business has constantly been balancing between marketing and sales work versus concerns regarding the logistics and production capacity. Instead of pushing sales, she has slowed down business growth. Otherwise, she sees the risk that the business model will fall apart, since it is so dependent upon expensive raw materials and subcontractors’ production capacity. A growth of around 20-30% is an absolute maximum for this type of business, as beyond that it starts to suffocate without external financing.

Although, DED is still enthusiastic about business development, she has also actively started to seek a suitable successor to enable part-time retirement. When the company has a qualified successor who is able to manage the business, she would like to work with product design and development of production techniques. However, until now, the potential candidates have mainly lacked the entrepreneurial way of thinking. Additionally, DED admits that she still needs a certain spiritual growth to let go of her company. She knows that it will require effort to create the continuation. The risk is that when she walks out of the door, the customer contacts and all other forms of company competence disappears. The machinery and the raw material have no value without the information and competences that she possesses. Thus, she sees it as mandatory to embed them in the company. In addition, she sees it as necessary to enlarge the production volume in the future. She has thought about these issues for a long time. Overall, she wants to find someone who has an entrepreneurial way of thinking and is willing to become committed:

“My aim is to rapidly start to look for a potential person with whom I could start to consider continuity. Then at least a five year long transformation period, so that all the salient information can be transferred. Of course, each generation must build something that looks like their own thing, that is evident, but everything that is essential for the brand activities must be transferred and that does not happen instantly.” (D)

5.5. DESIGN ENTREPRENEUR E

Design entrepreneur E (DEE) brings her own product, furniture and concept design to the market. Currently, she has many projects on-going, which will eventually become the foundation for her business. Functionality is a particularly important feature of her design. She has a design education (BA) and is a physiotherapist. She decided to become self-employed after graduating in 2005 due to her desire to develop her own products and concepts.

5.5.1. Reasons for self-employment

DEE decided to become self-employed directly after finalizing her studies since she wanted to ensure that she can work with her own product innovations. She sees herself as entrepreneurial, despite her limited understanding of business-related matters. She definitely does not like to be commanded or led at work, which might derive from the strict discipline she encountered during her earlier sports career or previous work
experience. Instead, she likes the thought of a free life and that is perhaps why she wanted to become an entrepreneur.

DEE sees financial aspects as restricting factors for taking the process further. She is constantly forced to consider if she should continue and if she can make a living via self-employment. As an entrepreneur, one is expected to be constantly interested and involved in the money side, which considerably narrows the creative scope. DEE claims to be a little afraid that after establishing a business, it will slowly carry her away from being a designer and transform her into a business person. To avoid that, she hopes that someone else will operate the business at some point. This is, however, a somewhat contradictory thought, since she also wants be self-employed and successful enough to live on her income. However, she is not looking for any form of luxury or fame which is not fully in line with her view of an entrepreneur. Consequently, she would like stay behind the curtains and work with designing new products:

“It is a restricting factor, I am constantly considering here whether I should exploit this opportunity, and will I make a living from it? I am not expecting to become rich, I am not interested in money as such at all, and thus, the financial side is so hard in this matter. One should be so very interested in it; it limits me when I feel I must constantly consider whether it is worthwhile.” (E)

For DEE, a typical day starts at seven in the morning when she puts on the computer and checks her e-mail. If she has received mail, she replies before conducting her morning routines. After that, she continues to work with papers, pictures and other issues in relation to her products. In addition, she has various business meetings concerning the products. Every morning, she claims she is really excited, thinking that today anything can happen regarding the products. However, at some stage of the day this enthusiasm declines and she starts to feel locked at home, surrounded by the piles of product-related papers. As a result, she quits working and goes out to do some sports. When she returns, she is full of good spirits again, knowing that in the evening she will coach youth athletes. Currently, most of her salary comes from coaching and from developing sports equipment along with working for a furniture store. In a sense, she can freely plan her day and what she will do, but she misses having a social network. For example, she could imagine sharing workspace with other like-minded people, which would allow her to ask for others’ opinions in, for instance, design-related matters. Sometimes, working without a social group becomes almost unbearable—a true challenge, which is one of the reasons why she is not ready to give up yet.

5.5.2. Creation of venture ideas

As an example of how creative ideas emerge, DEE gives preparation for school assignments as an example, claiming that it shows how inexperienced a designer she still is. After reading the assignment, she normally gets the initial idea almost immediately. First after that, she strives to use fancy design techniques to satisfy the general assumption that one should not settle on the initial thought. She disagrees with the general argument that initial ideas are not the best. Subsequently, she tries to develop the idea further, while she is drawing:
“The products are somehow born by themselves. I am somehow not a designer, because I feel that everything must be so sensible, functional and practical. I probably abandon many ideas just because they look nice, but there is no function to them. There must always be some function, functionality. Many times the ideas come in the middle of the night “Bang, now it came, quickly start drawing.” I am sleeping at that stage, and then I wake up to it: my mind processes these ideas constantly.” (E)

According to her, it is the unconscious that constantly processes these thoughts, and she sees a lot of ideas in her dreams. Therefore, it makes sense for her to have a notebook beside the bed. For some reason, the night seems to be the best creative moment for her. Occasionally, she finds it quite tough and wishes at times that she could turn off her creativity. The creative flow feeling is particularly strong, and she normally enjoys it. Especially, if she knows that she has no reason to leave the apartment for the next three days, then she can have her hair as she wants and just draw and explore ideas, which is a great experience. The initial ideas may change more or less after DEE starts to think of production related issues. For her, it remains important that the product idea and her original vision of the product remain intact, instead of changing them to suit the production scheme better. However, she realizes that production-related issues, such as cost saving and material selection, forcefully change initial aspects. Although these aspects eventually have an impact, she strives to create ideas without thinking of them too much. At some stage, money always becomes the object anyway:

“It is constantly important to return to the basics and ask is this sellable? Will it sell? And what is the cost of getting it onto the market?” (E)

During her design studies, DEE was on a student exchange programme abroad. While abroad, she came up with the idea of creating a product family. Originally, the idea was to develop all product categories at once, but soon she realized that this was much too big task and fairly unrealistic to exploit them all. Instead, she selected the most promising innovation and started to develop that one further. At one point during the development, she showed the product concept to a large international producer. They liked the concept and were interested in buying it, but they wanted to tailor its design in accordance with their own brand image. As a result, DEE was not willing to sell just the concept, without the design-related aspects. The company signed a non-disclosure agreement, but that of course does not stop them from creating something similar of their own. Currently, the idea exists on paper and the aim now is to locate collaborative partners who could develop the underlying electronics. The technological features or economic realities were not important for DEE when she started to think of the product. Instead, she saw a need within a certain customer segment and wanted to find means to ease their way of life. Various business experts have asked her how she is planning eventually to make money with the product. She admits that next the project definitely requires additional financial and technological skills to be taken further:

“When I am processing an idea, I do not stop to consider. At that point, I strive to keep it “just the same”. Financial realities emerge when you realize that it is too expensive or difficult to produce. It emerged when we considered how to produce it, but it was not possible, or it would be with sufficient financial means. It is really money that matters, but on the other hand, it is good, since it would not become anything if everything were possible.” (E)
5.5.3. Resource availability

DEE seems somewhat frustrated regarding the assembly of necessary resources. For example, the development and eventual launch of one of her product ideas would require multidimensional expertise. On the other hand, she has received government-financed expertise in discovering the potential of commercializing and organizing around the business idea. In addition, she has encountered problems in finding an appropriate producer for another of her products. The challenges are partly caused by the newness of the product innovation, but also by her lack of experience in negotiating with producers.

Since her early childhood, DEE has enjoyed creating things with her hands. In addition, she was an enthusiastic athlete in her childhood. In 1994, she was suddenly forced to finish her sports career, which brought her life to a complete halt. It took over half a year for her to consider what life was all about and how to continue. Consequently, she wrote her matriculation exam in 1995, a year later than originally predicted. Initially, she planned to become a doctor, but instead, in 1996, she attended a course on sports massage which lasted for six months. After that, she continued to study physiotherapy (2001-2002), and simultaneously she completed a Cum Laude in physiotherapy. Thereafter, she worked for some time in Finland, before she moved to Sweden (2002-03).

“After graduating, I worked in Finland for some time, over a six-month period; I worked in three different places. Then, I decided to move to Sweden, where the salary was somewhat better”. (E)

DEE’s interest in design-related issues arose from a practical work-related problem. She had to redesign a product in order to meet a customer request. During the tailoring process, she started to think that it would actually be great to start designing such products in the future. Consequently, she decided to apply for a design programme (B.Sc.), and soon after she realized the potential in combining her previous competences with industrial design. The previous work did not completely fulfil her creative needs, but as a professional designer she was suddenly able to work with both handicrafts and creativity. DEE graduated in the spring of 2006, so she believes it is too early to regard herself as an experienced professional designer, and similarly she avoids defining herself as an artist. Instead, she stresses her previous work-related experience and her desire to create functional and social products. She sees education as an important individual resource and is thus applying to continue her studies at the masters level. Consequently, she feels a need to attain basic knowledge to develop her own product ideas:

“Education is really important, and that is why I have applied for the master programme at the University of Art and Design Helsinki. I feel that I need more competence in order to take my product ideas further; otherwise, I would not have applied. I am not after the title, but I need to learn more, especially because I have been in the field for such a short time.” (E)

DEE has practised her profession in a Finnish design company. She discovered that business culture simply did not allow any ‘creative craziness’. Instead, designers were encouraged to constantly have business in focus and to develop sellable products with
maximal profit. Positively, to work in the company made her understand that it was not entirely impossible to produce and run a similar business on smaller scale.

Moreover, artistic creativity is, according to DEE, the most important aspect of creativity: to be able to create simple goods of high quality at low production costs. It is a true skill to create goods that appeal to large crowds. Artistic creativity is definitely needed and design immediately suffers if she is tired or her head filled with problems. However, she admits that professional skills and experience may allow less emphasis on artistic creativity. Due to her previous work experience, it was clear from the beginning what DEE wanted to accomplish when she started to study design. Consequently, she was not capable of or willing to let go of the functional dimension in favour of something more artistic. Physiotherapy has a strong foothold in her life philosophy, which can also be seen in one way or the other in products designed by her. These products are artefacts, but they are also transformable and somehow things of movement. This is resource strength, as her products differ from what people are used to. During the first years of her studies in industrial design, she was constantly mirroring herself to the creative colleagues. The colleagues helped her to become more artistically aware and she was able to bring more functional awareness to their way of working.

DEE regards the social network as important for her entrepreneurial activities. For example, if she needs some material, she will consider who could help in finding it. To have a good network is very important since it speeds up processes. Her network has developed by achieving experience, by creating space and seeking for appropriate contacts. She explains that at some stage she starts to trust in certain persons and feel that with them co-operation really works. DEE does not like it when things are standing still, especially if she has agreed to something with someone, but nothing seems to happen. For example, one of her subcontractors was slow and it seemed so difficult to progress and get her product manufactured. Consequently, she decided to find another producer. According to her, there are potential suppliers, but it is harder to find such that are really collaborative. Therefore, DEE has started to compare her experiences with her friends and colleagues. Mostly, DEE has built her design-related network during her studies, and via her dad she has also made valuable contacts in the business world. In that sense, she has also contacted people her dad knows from before. Recently she has become more systematic in creating good relations, and even in the simplest of business transactions (e.g. purchase of product-related commodities) she strives for personal contact. She tries always to deal with the same person, so that the clerk knows that she will be returning regularly, and, thus, wants to serve her extra well.

However, at least until now, she has not been able to find an appropriate business associate. Although, DEE sees it at as a big risk, she is nonetheless constantly thinking about and seeking an associate. However, most of her friends or colleagues would not qualify, since they are mostly designers like her. She feels that the missing link is precisely that package of business-related skills which artists and designers often do not possess. DEE believes that two heads and four eyes would see much more and broader. Each would focus a little bit on a different trail and when combining these, they would see a little bit wider. She has two friends who assist her in business-related matters, but neither of them is interested in becoming her business associate. She says:
“Working without a social group sometimes becomes almost unbearable. With one, it could function with a workroom mentality, which would allow me to ask others, ‘Should I move this a millimetre in this direction, or that direction?’” (E)

In addition, DEE has some friends that want to establish a joint business and work together with her, but she is too concerned that it might end up in an argument and destroy their friendship. More so, she does not have anyone among her friends who would be a perfect match and would possess the necessary experience and skills for running a design venture. Consequently, she believes that the best solution would be to find an outside person who would be passionately involved and have equal stakes in the business. However, she is mainly doubtful because she is herself a person who constantly needs to do things. She is afraid that her business partner would settle on working from eight till four, but she would continue working 24 hours a day, seven days a week.

“I need a business-minded person who would say, “At this price and like this”. Hence, he or she would calculate rapidly which kinds of proposals I should accept. I can take care of contacts myself, but I find the business side difficult. In addition, when I need to sign a contract, I am terrified that I will sign something that will leave me with nothing. Therefore, for example, one of my product-related projects is at a complete standstill.” (E)

In one year’s time, her dad will retire from his work. He has always been interested in entrepreneurship but has never taken the step of self-employment. Accordingly, she is perhaps somewhat holding back product launches, to see what will happen. On the other hand, she cannot sit and wait for her dad to get the product moving eventually when it suits his schedule. Her dad also keeps saying that there would be easier ways to earn a living than being a design entrepreneur. Consequently, she does not receive total support for entering entrepreneurship, at least from her family. Similarly, she is not quite sure that she would like to run a business with her father, who has a different personality to her. He is an engineer and does not always understand artistic fine-tuning. Instead, he is concerned about money (volumes and margins etc.), but not so much about quality and sustainability as she is. Hence, a partnership might result in big arguments, but on the other hand she would be ready to try it, as he is a person she really is able to trust. Trust seems to be important for DEE. For her, a trusting relationship is characterized by the fact that things work and the parties speak about the same issues. For some reason, it is easier to get along with some people than with others. Experience is also essential, and after visiting various producers she is richer in experience again. If nothing else, she has learned to trust no one:

“With some of the producers, I was constantly faced with my inexperience and that I am a female, which they somehow used all the time for their benefit. For example, I am talking now about a company that was about to start production of one of my products; with them, it felt somehow suspicious when we were about to sign the contract. He had decided that it would be a 30-year contract. I said, ‘30 years? I might not even live that long, I cannot sign such a contract’” (E)

If DEE had sufficient financial resources, she would not have to consider too much what she would do next: she would rent a workroom and hire a person who would be responsible for operating the business. According to her, the production would be easy to settle if she had €10,000 of starting capital to pay the producer for raw materials. The business associate would sell and she could focus on innovating and designing new
products. The lack of starting capital is, according to her, one of the major issues. However, she has limited ability to take a loan, because she has just recently signed a large house mortgage. She already feels that it is a big risk to buy an apartment in her insecure work situation:

“In addition to establishing my own business, I work part time at a furniture store, and I also coach youth athletes. For example, in the furniture store there are many artists who work there because they have to. From there they receive a salary, and then they use their spare time to work with things they really want to do.” (E)

She would be ready to accept an external financier for the business, but she assumes that financiers would try to benefit from her. Money is constantly an object. For instance, it would be necessary to purchase larger volumes from the subcontractor in order to reach an appropriate cost level associated with one of her products. Similarly, she has been thinking of various distribution channels and tried to calculate the benefits of the various options. These are issues that need to be considered but simultaneously feel distant to her. Her colleagues cannot generally assist her in these matters either, since many of them face difficulties with pricing and other financial issues as well. She says she has many options:

“What would be smartest for me, to order from Estonia and pay a certain down payment, and then I order a truckload and store them? Then I would sell them, how much do I get, is it profitable? What if I were to find a producer who would have the sales rights, what will I get in commissions? These things must be considered, but it is not one of my strengths. I constantly consider what the best solution would be and ask for better offers and collaborative parties.” (E)

DEE keeps asking herself if financial issues are so hard after all. She knows the production costs, and to that she should add her salary and the VAT. The sum of these should result in the product price. She has been planning to create a basic template, which would ease pricing for future products. However, the context is always changing and costs depend, for instance, on purchase volumes and material choices.

5.5.4. Execution and modes of exploitation

In the past, DEE actively scanned the markets for companies that combined, as she does, product design, the well-being perspective and was aimed at the same user group. However, in Finland such production companies did not really exist. Consequently, she thought that there were no other options than to establish her own business if she wanted to do precisely this. Currently, she is striving to develop and commercialize two different products. She has recently also launched her own brand to support business focus and launch of product-related ideas. DEE aims at creating a workplace which allows development and preservation of her design-related ideas in the finalized products. She wants to combine physiotherapy with design, and become a specialist in a niche market. Overall, she seems to enjoy the fact that people are encouraging her and tell her that she is good at what she does. Simultaneously, she counter argues and explains how she is terrified to be in the spotlight. Consequently, she does not feel that her design needs a face. Instead, she would like to design products that are so functional that people do not even think of their origin.
Today, most designers or people working within the field seem to be self-employed. It seems difficult for her to separate entrepreneurship from design, since a designer is always forced to sell their ideas in one way or the other and in that way be entrepreneurial. Nevertheless, she finds it stressful to think of business when she would just like to create and design things. She is aware of the necessity to sell her products, because it enables her way of working and living. However, at some points she has been ready to quit trying and return to her previous profession. She feels that so much time is consumed in planning, thinking and designing, and even then everything may fall flat when you contact a producer that sets an unrealistic production price. DEE sees herself as a rather driven person. Therefore, it has been hard for her to realize how much time it takes to push forward ideas towards markets. When she heard that it takes on average three years to get an idea to the market she was at first shocked. Consequently, she realized that it takes both time and collaborative parties to launch sellable goods. On this, she says:

“I do not believe that my ideas will run out, so that will not be the problem. A larger problem is to get the ideas to the market. That is the big challenge in this business. Somehow, even if it is a good idea, it does not necessarily sell. It is said that good ideas sell themselves, but that is not true. It requires a lot of effort.” (E)

As a result, she did not create any new products for a long time after she realized that it may take three years before they enter the markets and start to yield returns. In any case, she is ready to struggle as long as it takes to get at least some of her own products onto the market. She wants to enjoy her work and get these “flow” feelings. Overall, she believes that she can sell her own products, but is more concerned about the production and business parts. The products should be so desirable that they sell themselves, but the financial side needs extra caretaking. She has attended various courses to enhance her business skills, but she has frequently become frustrated about not understanding some of the key related issues. Therefore, she believes it is important to find a way to link these three personalities together. She could start to run a company now which would sell her own products. One of the products already has pre-orders and everything else it needs, but she still lacks a producer to produce it. As explained, she has some less encouraging experiences from taking a business idea further, as one of the potential producers did not take her seriously during the negotiations. Consequently, she is terrified of signing an unprofitable contract by mistake, and thus, for example, one of her products is lacking a producer. She says:

“I started to realize that I must find someone who is willing to produce it. Where do I actually manufacture this? Then I drove with a prototype in the car boot across the countryside and thought. ‘This is crazy’. I went from one producer to the next and asked if they could produce it, and then I thought that it would be good to have a companion along.” (E)

Eventually, when she is able to find a producer and start to deliver orders, then it would become a full-time occupation for her. Consequently, DEE is concerned that she would not have time to design new products, think of new innovations and develop the business in itself. Recently, DEE has begun to look for some kind of a solution by scanning potential collaborative partners. Among other things, she is working with the government-supported programme “Business from Research Projects (Tuli/Tekes), which aims at analyzing the commercial potential of her product. Overall, the project group has been very supportive; for example, they are willing to assist her in finding
financiers and collaborative parties. In the future, DEE would like to concentrate on product design. Hence, her desire is to find a business associate, or to become employed in a company that would allow her to focus on her core competence area. However, she has a strong desire to work with her own ideas, but if that is not possible, and then she must give up and become an employee who simply follows orders.

5.6. DESIGN ENTREPRENEUR F

Design entrepreneur F offers industrial design services. She has a design degree (BA) and a business degree (BA). She founded her own interior design store after graduating in 2004. In 2006, she closed the store and decided to refocus her business and offer industrial design services instead. Since then, she has developing the business in this new direction.

5.6.1. Reasons for self-employment

DEF seems to like stress and claims that the more tasks she is running, the better they tend to go. Hence, her creativity tends to increase along with stress, and she describes herself as a “last moment person” who finalizes everything during the last night before the deadline. Furthermore, she claims to be a person with head in the clouds, but feet firmly on the ground. Consequently, she does not see herself as an artist in the purest form. For instance, she likes to have everything tidy around her and having everything in its place, which does not match particularly well with a creative mind. A creative person is somehow expected to forget everything possible and not even remember to eat. Although DEF might miss a meal every now and then, she does not see herself as such an extreme person. On the other hand, she does not regard herself as a pure business person either. She used to work with business-related tasks, but it felt boring and she missed creativity and creative challenges.

During her studies, DEF dreamt of having her own interior design shop. After approximately five years of planning, she made the decision and started the shop. In practice, the start-up period took half a year, and then the shop was up and running. During that time, she established business contacts and wrote a business plan. Eventually, she started the shop at the same time as she wrote her final thesis (B.Sc.) and opened the doors two weeks after graduating. However, after two years she was forced to quit the shop, due to low profitability. Operating her own shop extended her workload far beyond what she would be ready to work for someone else. In addition, the lifestyle was rather unstable, as a result of working 17 hours and sleeping just 6 hours at times. On the other hand, there were periods that were considerably calmer, and she was able to relax. Importantly, no one was bossing her around, and she could make decisions for herself, which evidently also called for self-discipline. Sometimes she pushed unpleasant issues easily aside, but found them waiting for her later. Working as an entrepreneur involves commitment, but it is important not to take everything too personally, for example, customer complaints, otherwise life easily becomes too nerve-racking. For her, the step to employ staff was too big. In fact, she felt too responsible to employ staff, worrying that she would not be able to pay a salary for them every month. Instead, she strived to externalize as much of the operative business functions as
possible and in that way retain flexibility. To employ staff, she felt that the business was not big enough, but on the other hand she did not have an ambition to grow it either.

“Paperwork is necessary, even if it is not always interesting. It is necessary to allocate time and say, ‘Now we put other thoughts aside and look at the paper work, so that the bookkeeper will get these papers’. In a sense, it kills creativity, but it is a necessary evil if you do not want to work for someone else. And they, too, will have paperwork, so it is impossible to escape it. In a sense, entrepreneurship depends on you, so that the sales are made.” (F)

According to her previous experience, few of the customers knew that she was the only employee in and the entrepreneur of the interior shop. She emphasized this on purpose, by always talking about “us” to customers and suppliers. This is something she will continue with also after changing her business focus. For example, she will rent office space, instead of working from home, and moreover, create a visual image for the business via business cards and homepage etc. The homepages will emphasize the company perspective and not particularly present her personality and work references. Instead, all references are presented as company achievements; it is a question of selecting the mode for presenting the business. DEF is confident that talking about a company instead of her as self-employed positively affects the customer response. At least, customers seem to place more trust in “us”, than “me”. This way of thinking has followed her almost from the beginning, as she regards everything that is outsourced as activities conducted in the name of the company (that is “we”). Somehow, it came rather automatically for her to start talking about “us”, except when she talks to colleagues who know her business background.

In contrast to what is said to be common within the design industry, DEF has no intention of making her known, as she wants to promote her own company and its brand. Hence, she does not desire to personalize the business around her own identity. Instead, she would like to develop the right concept, eventually sell the business and regard it as her pension. If the business is built too much around her personality, she thinks it will be impossible to sell it. Consequently, she assumes that it is the business she will invest in, which allows her also to externalize certain things.

5.6.2. Creation of venture ideas

DEF has a degree in both commerce and in industrial design. The educational combination has made her realize that the commercial side has a stricter theoretical foothold than the field of design. Consequently, she wishes that industrial design also had clearer directives, instead of allowing varying choices according to the designers’ personal preferences. In design there are no definite borders between sub-disciplines as in business, except regarding certain periods of time and so forth. Currently, designers and artists pursue many design directions simultaneously.

DEF does not like the idea of categorizing design and entrepreneurial ideas, since she feels that these are often intertwined. For example, in her creative process, she may consider branding right from the start, but admits that the early process is usually rather creative and relaxed. She does not regard herself as an artist, but a designer. Designing a product involves many different aspects, which makes it important to consider the entire life-cycle of the product. Hence, logistics and production-related aspects are central,
along with material costs, etc. A designer must at some stage think of these issues, she says, so why not start from them? Often, they are ignored until the end when the designer finally realizes that the product has no business future:

“A product’s design must be considered throughout its life cycle, including logistics and production. How much the materials cost and what the production costs are, and so on. Those calculations must be done at some stage anyway. So why not do them from the start, instead of first designing the product and then wondering if it can be produced. This is not all that uncommon.” (F)

DEF describes herself as a visual person who constantly examines her surroundings for potential ideas. She observes certain things, regardless of whether she is watching a movie or walking somewhere. Hence, she believes that many of her ideas derive from such flashbacks. More precisely, she says she wakes up in the middle of the night and starts to draw. Ideas tend to be born in the early morning hours, with the urge to start drawing and get everything on paper. The ideas are typically at the initial stage, and the next morning she might actually wonder what on earth she was thinking of. Occasionally the ideas are too wild, but some of them have been serious enough to continue developing. She says she gets a lot of ideas, but the challenge seems to be to pick the winning ones. For her, an innovative idea requires some form of newness value; it should represent something new and different. Hence, newness may derive from the usage of a new technique, technology or way of producing material. In addition, such products may also be different in their design, but she believes it to be much harder to achieve newness via design. Accordingly, newness seems to be easier to reach via technology than design, as the latter has been used so much previously. She declares that she has many papers in her drawers on a multitude of business ideas; these ideas have been invented during the early morning hours in a rather systematic fashion, but without following any specific business logic. Now she has left the interior design shop, she has more time to create and develop her ideas. Accordingly, she claims that her creativity suffered during the period when she had the shop.

“Newness may derive from the usage of a new technique, technology or way of producing material. In addition, such products may also be different in their design, but I believe it to be much harder to achieve newness via design. Similarly, newness seems to be easier to reach via technology than design, since the latter has been used so much in the past.” (F)

Occasionally, DEF realizes that some of her ideas have been already invented by someone else. She says that she gets angry if the original inventor has done a bad job when designing the product; if they had the idea before her, why didn’t they do a proper job in designing the product? At the same time, she normally starts to think about whether she should start to create her version of the product anyway. She claims that there is often a rather indistinct border when a product is different from another—a new product. It would be difficult to get away with recreating an exact copy of an existing product, but there is always the possibility of variations. During her studies in marketing, she learnt that a new product package equals a new product, but in the field of design no one dares to admit this logic. Hitherto, she has not had the courage to develop ideas that originate from others, since she considers the reactions that this would generate from within the field:

“I receive many ideas, but the problem is to know which of them would work. Sometimes, I also realize that someone has already created this earlier. I get this quite often, so I am not all
She says that she is interested in history and in what has been done in the past. Too often, designers strive to create something new without making the end result any better than it was before. Consequently, she thinks it is important to test and trial ideas, but without forgetting past achievements. In general, to develop a product requires that the designer is 100% behind it. Regarding her own products, her belief from the very beginning of the process is that it must be state of the art and comprehensively thought through. She believes it is a common problem that designers strive to create overly-finalized products which might actually cause failures due to too much fine tuning.

Most commonly, her business ideas derive from a target group demand, or a specific way they are acting in. Hence, for her idea generation it is important to first locate customers and then start to think of their specific needs. She finds the reverse process to be somewhat twisted, since innovating first does not make sense without anyone to sell the outcome to. So, instead of having a new product and then start to promote it to potential clients, she finds it more natural to focus on client needs and offer means to satisfy it. Hence, it could be a different way of acting or a differing service from those of the competitors. She wants to focus on offering added value to the customers as so much is on the market these days. Her ideas derive from talking with people, when certain people complain about similar specific issues from one day to the other. After hearing the same complaint repeated again and again, she often realizes that either the supply does not exist or existing companies promote it in the wrong fashion. She is constantly observing and listening to the surroundings, but feels that she should write more on paper. Surprisingly often she is able to notice things in the field, noticing the rise of certain trends and other similar issues. Living abroad has opened her eyes even further. People seem to live in their own little worlds, without seeing that things could be done differently, or that there are certain things that would be worth considering. In the future, she sees the possibility of benefitting entrepreneurially from this mismatch, by either moving abroad and/or starting to trade products abroad. She has established plans to get her own product designs onto the market.

"Ideas emerge from a target segment, and their potential needs: “Hey, they are missing this and this”, or from their way of operating. I think it is pretty much about locating a segment. It is difficult to invent if there is no one to sell the ideas to. I do not necessarily start from business ideas, ‘Now I have this idea and I will start to promote it to them.’ On the creative side it does not happen like that: I think of the customer and what innovation I should provide them with. Either it is a different way of operating than the competitors operate, or it is a service or something else that gives added value. For me it is particularly important to offer added value, since there is so much supply these days.” (F)

5.6.3. Resource availability

DEF made a conscious choice when she started to obtain two degrees, since she found it important to understand business aspects as an industrial designer. However, she admits that her heart is entirely on the design side. Consequently, she decided to study business studies (B.Sc.) first, which would eventually function as a conceptual platform for studying industrial design (B.Sc.). According to her, it is by no means typical among designers to attain a formal degree in business. As a result, she admits that the business
education influences her creative eye and her way of working as an industrial designer. Consequently, she examines things from a broader scope. She is not only interested in the material side, but also in commercialization. Nevertheless, during her design studies, she was occasionally criticized for not taking more risks as a designer. She says:

“I found it important to understand business as a professional designer, even if my passion is entirely related to industrial design. The need for a commercial view was also there; it was more a question in which order I should study these subjects. I considered that a commercial degree forms in a sense a platform for everything else, it gives the basis and design comes on top of that.” (F)

DEF assumes that experience is one of the most important ingredients for entrepreneurship. Hence, setting up her own interior shop gave a good, but rather rough, start to her entrepreneurial carrier. As a result, she has begun to value that experience even further. Accordingly, it is important that one knows how things really work in practice. On the other hand, it is hard to start from nothing, which enhances the importance of education. Moreover, she believes that the support from home and her father as an entrepreneurial role model has increased her willingness to become self-employed. When DEF faced challenges with her interior design store, she consulted her bookkeeper and a business specialist. Overall, her friends and family have wondered why she decided to become an entrepreneur. Nevertheless, her family has been supportive, even if her father has had a few bankruptcies as an entrepreneur. Consequently, she has also seen the negative sides of entrepreneurship, which has made her believe that one can influence the development of the business. In addition, her sister has invested financially in the business and occasionally she has helped out.

“My friends have wondered why I want to become an entrepreneur, at home they have not… or yes they have wondered, but also been supportive. I have this kind of funny background, when I think of this, since my father has had several bankruptcies. Therefore, there is entrepreneurship and I have seen the negative side of it. Still, my opinion is that one can influence things, and perhaps from there I have seen how one should not do it, something that I have seen from a close range.” (F)

DEF claims that to have a social network is important for her, and that earlier, while lacking one, she did not have the courage to establish her own business. In that sense, networking and knowing the right people is particularly important in a small country like Finland. It is always easier to start a new project and to make new links when you know a broad range of people. The best resume is when an outsider recommends you instead of self-promotion. In addition, exchanging ideas is also important and requires a network of people with information. Some things are definitely not mentioned in the newspapers. DEF finds that running her own shop was an important means of collecting experience and contacts, straight after leaving school. During that time, she learnt to know several people, and, moreover, how the business world worked: what one is allowed to say aloud, and what one should keep silent about.

Regarding business related contacts, she has found it valuable to talk with people at exhibitions and to participate in design-related courses. Learning to know certain people works as a bridge in learning to know additional ones. She is also a member in the women entrepreneurs association, where she meets female entrepreneurs from other industries with similar challenges as she is facing. Overall, she values the opportunity to meet with entrepreneurs from other industries. She admits that she has partly strived
deliberately to build her network, but partly it has just emerged. In that sense, she believes that some things come without deliberate network construction, when one thing leads to another with only a limited chance to influence the process. For example, a first contact helps out in establishing a contact with someone you did not know from before. She maintains her network mainly by talking over the telephone with, or sending e-mail to, the people in it. Maintenance is important, since she realizes that otherwise the contacts will eventually dry out. Of course some relations fade, but she strives to actively maintain contact with the most important ones (app. 20). With these people, she claims she has a close relationship, which almost resembles friendship. Hence, they also talk of a lot of things outside the scope of business. These relationships have developed over a longer time period as the parties have learnt to know each other better:

“I have several levels of contacts. I meet them at exhibitions; I have participated in the Design Business Network programme, and I was earlier on an entrepreneurship course. During these, I have met specific persons and via these also others. In addition, I am a member of an association for female entrepreneurs.” (F)

DEF would be ready to consider team entrepreneurship because she realizes that operating alone is not always easy. Simply being able to talk to someone and get a second opinion would be good. However, it is not easy to find a partner and, after finding one, to ensure that everything falls into place. She talked about the option with some of her friends, but everyone else has ended their self-employment before engaging in collaboration. Instead, they would potentially be interested in being employed by her, but she cannot afford to hire any of them. They all have jobs with good salaries and would in any case be unlikely to risk their current status:

“Also, my friends work typically with something else. For example, they work as managers in interior design stores, with sales, designing kitchens, and such tasks. It is then pretty far away from design work.” (F)

According to DEF, the largest problem in start a business immediately after graduating is the lack of, and accumulation of, capital. When she started her design store, she had no personal finances left, so it was a rather big risk even to take a fairly small loan to set up the business. The loan was aimed at women entrepreneurs by Finnvera. She claims that it was really the only option she had, because normal banks would have required security. On the other hand, she does not have any other loans, for instance, related to cars or apartments. Before starting the business, she carefully calculated potential expenses, and consequently, the loan was just enough. During the first few months, she was uncertain about how the future would turn out, but eventually the business started to turn around. However, it never made any real profit and she decided to close the shop. After selling off her stock, she has almost the same amount of money left, as she borrowed when founding the shop. In that sense, she has the loan left to finance the initiation of the transformed business idea. The loan is on five years, the first one was without repayments. Currently, she does not quite know yet how much of the loan she has left, but eventually she will use it to rent a studio. The studio should have enough space to store goods but also allow a small office. She has plans to rent it with another entrepreneur to cut the fixed costs. She has experienced what it implies to pay annually €15,000 for renting shop space: it required stable sales every month. In the future, she is positive also because her modified business idea does not require such large sales to be profitable.
5.6.4. Execution and modes of exploitation

Since changing her business focus, DEF has started increasingly to work with design service provision. The change in business focus happened by chance when she contacted a company in another business-related matter. Then she was told that the company lacked a person who could conduct a design assignment in a short period of time. After this initial work opportunity, she realized that this was exactly what she wanted to continue working with. Now, the business model seems to work, and she finds project-based work challenging and rewarding. In addition, her business-related educational background supports her particular way of developing design well, since she knows the underlying business logic. This saves a lot of time otherwise lost to learning everything from scratch. In addition, running her own design shop taught her how hard it is to be part of various logistics chains:

“Nowadays, I have more design services, but for the moment I have meetings and so on where we agree regarding the future. I present and go through these things. For the moment, I do quite a lot of interior design, which came accidentally, so to speak. It seems to work, but of course, this kind of project type of business is challenging when you need to order things from several places. Related to entrepreneurship, my hope is that in a few years time I will have a more stable situation, so that I can move from having a start-up to a sincere business.” (F)

The greatest ambition DEF has is to launch her own product family. She claims it is a challenge to finalize the process from the start to the finish. She does not see it as a problem to combine the current business of offering design-related services with designing her own products. However, the borderline must be clear as one should not attempt to go in too many directions at once. Consequently, the focus will be on interior design, both by designing space, potential furniture, smaller decoration articles or elements. The main clients are companies, as most households have limited financial capacities. Currently, DEF is striving to reach a steadier development path in the entrepreneurial process and consequently transform the initial start-up procedure into a viable company. According to her, this development is supported also by the passage of time, as the company ages itself in the trade registry. As she explains, the business becomes more trustworthy due to its financial track record and tax payment history. Eventually, she envisions that the business will reach stability. If she strives for growth, she believes that she must be able to control the growth process. In line with her previous experiences, the growth process is too fast when the annual turnover is multiplying rapidly. She realized the challenges of rapid growth, when her interior shop held “clearance sales” for a one-month period. The sales volume was two-threefold compared to a normal month, which exhausted her reserves of time, energy and everything else. The logistics began to fail, and various other issues required her attention, without the possibility of letting go of the other activities at hand.

So far, the most challenging things for DEF have been the handling of larger amounts of money than normally and the responsibility of running a business. For example, she has found it hard to make unpleasant phone calls and ask for longer payment times, for instance, or to explain to customers why deliveries have failed several times. Normally, clients do not care whether or not it is a supplier problem and blame her for the failures as she is an official representative of the suppliers. Consequently, as an entrepreneur she does not really have anyone to discuss through these issues. Therefore, it is very important not to take things personally, but keeping cool has not always been so easy.
On the other hand, she has realized that the company comes first, and it is not acceptable to share the customers’ emotions. Hence, one has to serve the customer to a certain point, but it is important to draw the line where her businesses responsibility ends. After all, she runs a company and the business must function and move forward. There is no reason to pay for mistakes that others make.

In the future, DEF’s business will rely mainly on project-based sales, which usually implies several varying factors. This makes it challenging to agree upfront with the customers. Such projects tend to involve several customer representatives, all with distinct opinions along the progression of the project. In addition, she wants to attach her artistic vision to the outcome, which requires self-confidence to express and the capability to change the involved parties’ opinions of how things should be. Nevertheless, there is always the possibility in such design related-projects that the outcome matches what was agreed, but that the client has misinterpreted the original vision. On the other hand, after finalizing the first few interior design projects, she has realized that clients are ready to judge the outcome based on half-done work. Instead, they should wait for everything to be put in place in accordance with the artistic vision, and then it is also easier to argue for the space layout. Overall, interior design projects are hard to agree on paper, as so many aspects are a matter of taste and creativity. In addition, the outcome is highly dependent not only upon client desires, but also their financial budget. Both are elements that the clients are bound to change during the project. To ensure minimal disruption in the future, DEF strives to be a tougher negotiator and demand that real decision-makers join the project group from the start. However, it is a never-ending problem to find out who really has the power to make final decisions in a client company:

“You can put some things on paper, but at that stage the client has already changed the plans twice and the budget has been cut in half. Then you are nowhere any longer. Despite our original wishes, when the budget does not allow them, we are forced to make compromises along the way. However, the client does not necessarily understand why the original plans cannot be realized, even if their budget does not allow it.” (F)

According to her, she works more systematically than her design colleagues due to her dual educational background. Hitherto, she has not directly sought after employment as a product designer, but assumes that her kind of systematic approach is not needed to become employed. However, she has noticed that designers find it challenging get their messages through. Therefore, only few succeed and progress in their profession. The gap between design bureaus and potential client companies remains a major problem at least in Finland. The terminology and other codes needed for discussing between parties seem not to exist. Consequently, DEF has, after noticing this eminent lack, started to move her focus more and more towards bridging this gap. However, that was not her original purpose when she started her studies, but over the years she has realized that people operating in between are needed. Such persons must really understand the underlying issues on sides: what is sought after and what are the priorities as they are very often different. To establish a means for communication between these parties is relevant and she has since long desired to become a co-ordinator in between. Consequently, at some point she wants to become the designer and organizer, and is hopefully not forced to stretch in every direction to get things done as has been the case so far. To ensure this, she will find good collaborative partners, who are professionals in
practicalities such as logistics, refurbishing and assembly. However, at the moment the new business model still has many things open, for example, the potential price range and maximal workload are still not clear. Thus, it is not possible to agree on collaborative details before a certain deal flow is reached.

5.7. DESIGN ENTREPRENEUR G

Design entrepreneur G (DEG) brings his own product designs to the market, both by developing volume products and artefacts. He is an industrial designer (MA) and a designer (BA). He used to work both as a construction drawer and later as an advertising drawer. Eventually, he decided to re-educate himself. He identified his basic product-related innovation during his MA-studies. Consequently, after graduating he decided to become self-employed.

5.7.1. Reasons for self-employment

According to DEG, being a self-employed designer requires a “double personality”, which implies the capacity to face both business and design-related matters. To work as a self-employed designer is somehow contradictory as there should be enough time to do both. Paperwork is mandatory, but also rather uninteresting. Hence, business orientation can be, and often is, regarded as negative by the public. Similarly, colleagues might look down on artists or designers who are doing those things merely to become rich. Consequently, he feels that it is necessary to balance between creative output and economic input. For him, entrepreneurship is on the practical level a certain feeling of freedom. He is able to follow his own schedule and create his own daily agendas. On the other hand, he also emphasizes the importance of commitment to customer contacts and responsiveness regarding agreements with the customers.

“On the artistic side of my personality I am fascinated by the idea of, and feel it is achievable, becoming free, a creative artist who still has his income secured. Hence, there is always a need for an income, which requires business. Perhaps it is possible to conduct business as an artist, too. However, I do not believe that I am such a big artist or famous enough, at least yet, that I could live on the arts, without receiving financial grants.” (G)

For DEG, it seems fairly easy to leave work-related issues at the studio, but he confesses that his unconscious probably rewinds these issues outside official working hours, too. However, he does not actively strive to stimulate such thinking as he believes it is good to rest the mind after a long working day (finishing at app. 6-7pm). Normally, he works longer days than people on average, and he always has lunch at his studio while thinking about something work-related. Consequently, he strives to work intensely, so that the days do not become immensely long. After leaving work, he always does something completely different, such as sports or dinner at home, to forget work-related matters. On the other hand, when faced with tough issues, he normally reflects over them a last time before leaving work. In that sense, he moves the issue to his unconscious, hoping that the mind will find a solution while sleeping, which he claims works surprisingly well – something that looked really challenging the day before is suddenly so obvious in the morning.
DEG starts his day at nine o’clock, when he goes to his studio located fairly close to his home. Then he checks his e-mail and determines which work tasks should be prioritized that day. Thus, he organizes tasks and projects in a timeframe to ensure that he meets agreed deadlines. However, before starting to work with practical production tasks, he tries to first complete administrative and design-related tasks on the computer, depending of course on the urgency. Normally, he spends the entire day at the studio, but sometimes he spends 3-4 days in a row at a subcontractor’s workshop, where he can get access to larger production-related machines.

5.7.2. Creation of venture ideas

DEG has both a night notebook and a pen and paper with him during the day, to ensure that he always captures all ideas that cross his mind. He actually started this bookkeeping when he could not turn off and go to sleep. Consequently, he writes down any ideas, a problem or a description of a situation, and after that he is able to go to sleep. It eases the mind to converse with oneself on paper, and it is also easier to return to the same thoughts later on. Sometimes, he gets a good idea but does not commit it to paper because it is so clear in his mind. However, at some stage later, the idea has been wiped away, and this disturbs him greatly. Most ideas that he writes in his notebook are related to design issues, as business-related matters are written on a separate memo paper: “Remember the VAT”, or “Call Lena”. In addition, at his office, he has different folders for standard products and artefacts, in which he files all information that he comes across. He also has a deadline list, to keep him updated.

DEG finds it important to work with both ordinary production and artefacts from totally different materials. Working with these two different worlds keeps his motivation high, and, particularly, working with the artefacts feels like a wonderful break in its contrast to his ordinary work. Simply working for some time with different materials awakens his creativity, without the necessity of detouring very much from his ordinary daily schedule. Hence, it allows him to get away from ordinary thoughts and routines, which is healthy for the brain. Although the artefacts are also work-tasks they do not feel like it. In addition, working with these artefacts generates ideas that can be used for developing more standard products. Working with them opens his thoughts and makes him consider one’s own way of thinking.

He also enjoys discussing with others regarding their work or work of his own, focusing on details and how they are decided upon. This conversation is very fruitful for opening his creative thinking. Moreover, he enjoys pulling into pieces some of his larger products or production phases, thinking of how to create new variation. He has some variation products in the pipeline and is keen to develop more of them. Similarly, he is ready to play with the usage of raw-materials, which has so far mainly been wood. However, even though he is personally becoming tired of processing wood, he knows that his clients are not even close to becoming tired. Consequently, he must continue to feed them with what they want and very slowly and carefully introduce new elements and variations to the products. He has already done prototypes of new products that are merely waiting for the right moment to be launched:
“With me, when we talk about this kind of repetitive design, I am able to create variation to the extent that repetition in a way disappears, even if I repeat the same theme or thing, and use repetition also in the production method.” (G).

In practice, ideas may come into existence from anywhere and everywhere. However, he is careful to state that his work as a designer commonly takes place within certain boundaries, within which he is able to innovate and create ideas. That is often the starting point of, for example, an artefact to a certain space or presenting something to a specific audience. Consequently, he starts to create ideas, or perhaps the initial idea is in fact born earlier, but he continues to think about what it actually is. Regarding products, he cannot specify the origins of the idea: for instance, one product just popped up during a conversation with someone. Another time, he invented a product when he was asked to design a product which would use as much as possible of a specific raw material. His ideas also derive from working with, and testing physically, how various materials transform in the process. In line with this exploration, he is a keen information-seeker. Thus, he wants to understand everything related to the behaviour of specific materials. On one occasion, he collected so much information that he was able to introduce an entirely new way to process wood. Consequently, he was able to patent the innovation and benefit from it in his current business. The product development and patenting process were enabled by financial support from his university and close collaboration with the raw material producer. Eventually, after graduating he purchased (according to an earlier contract) the patenting rights from the university. After that, he soon found his first customer for the product innovation. It was a rather large and long-term order.

After an initial product-related idea has emerged, DEG considers whether it has any kind of business potential. Thereafter, he starts to think of the product and its design: usability, formation and its target group. Consequently, a design or a creative contribution can only be applied if there is space for it, without breaking the overall frame. Hence, such added value should increase the interest and appeal for the product in question. In that sense, art and creativity are fully applicable to enhance the business. However, it is meaningful to state that this is not about creating art; instead the work should progress through facts. Similarly, the assumption of success should be based on knowledge, not gut feeling. In addition, it does not hurt (yes it does…) to ask people who know and dare to tell you if the product makes sense or not.

“I clearly distinguish when I am talking about working as a designer, since commonly there are certain frames for idea creation. It is often the starting point, for example, an artefact made for a certain space. Regarding products, I do not know where the ideas originally derive from, sometimes, for example, from discussions or based on materials.” (G)

He sees the need to continue to develop new products, to ensure that he does not get stuck to the original products. Only then is it possible to minimize potential risks, for example, if the marketing company goes bankrupt or the raw material production is ended. He would like to have even more new products in the pipeline, but that would not hinder him from returning to old product innovations and reinventing them. For example, he was able to create a new product that would enable mass production. Such a specific product could be manufactured somewhere cheaper than Finland, where all production so far has taken place.
5.7.3. Resource availability

Before breaking his back at the age of 20, DEG used to be a professional junior athlete. Consequently, he decided to take a one-year course to study construction techniques and become a construction draughtsman. After working for one year as a draughtsman, his brother hinted to him about an open vacancy as an ad-drawer in an advertising agency. He took the position and simultaneously studied marketing at the institute level. Overall, he worked in four advertising agencies during a twelve-year period. However, the industry changed rapidly as computers become common and he did not like the change towards a less social way of working. Sitting alone in front of a computer and having virtual meetings left little need for team meetings. He missed the social discussions and contact making and consequently started to look for other things to do. At that stage, he was financially fairly secure, due to a few successful apartment switches, so he could really do what he pleased. As a result, he applied to a handicraft-design programme (B.Sc.) since he had always enjoyed working with his hands. Thereafter, he continued to study industrial design at the university level.

DEG values creativity as the core of entrepreneurship. If one is not capable of exchanging ideas in business, to transform oneself via one’s own work, then one starts to lag behind. He has, with some interest, realized the expansion of his experience, by examining and listening to his own colleagues. They have chosen their own development paths since graduating as designers, and many of them have said to him that he has been involved in so many things; he has products here and there and a patent and everything. Consequently, he realizes that he actually has collected experience during the past years and is not such a fresh graduate as he sometimes leads himself to believe. He feels capable of operating a business in his own fashion and on a relatively small scale. Moreover, he finds education to be vital, as only relying on the bachelor’s degree would probably never have lead him to innovate the products or to the current work tasks. Instead, it would be more likely that he would be working as a professional handicraft worker with a much smaller series. Consequently, he argues that the Masters programme helped to develop his thinking skills, and overall, the education strengthened his choice of direction and gave him formal experience. He has realized the importance of education and is willing to continue enhancing his knowledge in the future (e.g. participation in Design Business Network).

DEG says he has a certain social network, but it does not support his daily operations. Currently, he stays the entire day at the studio and misses other likeminded people to talk with. He sees it as strength for an entrepreneur to have colleagues and other creative people to exchange ideas with. They do not necessarily need to be from the same field of business but creative people who in one way or the other works with creativity. Then he could share space with them and the conversations would be important for his operative business, his mental health, and his designs and business. In the future, he wants to find a space or community where he can have a tiny office. He claims he enjoys working alone at his studio, without any disruptions, but, nevertheless, it would be beneficial to ask directly a colleague what they think regarding some product feature, etc. This is something that he has really missed, and, thus, at least partially to compensate, he is active in Design Forum Finland. He assists in setting up and designing exhibitions. The participation allows him to meet and discuss with professional colleagues and professionals also from other fields.
Moreover, his brother is a founding partner in a reasonably large advertising agency with a graphics design department. Recently, the brother suggested that they should start collaboration. For example, DEG could move his studio to their facilities and also work as a consultant in some of their design projects. For his current business, the collaboration would bring a straight connection to marketing experts. However, he originally decided that he would merely work with own products, which is not connected in any way to advertising. He wants to continue working physically with his hands and wood processing in an open office landscape does not work out. Even in his current studio, he faces problems with the PC due to too much dust. In addition, he wants to have his own peace. In a sense, it would make sense to have a separate manufacturing space and office space. One option is to have the office in a community together with other designers and the workshop separately; another option is to collect several designers and rent a larger place with everything that is needed. In addition, he could also move the production to someone’s wood shop. In any case, he will make a decision very soon, since he is not happy with the current space.

DEG blames his personality for not being more active, open or interested in keeping in touch with those contacts he already possesses. However, it is so much easier to stay at the studio and work with own things, which is fun but does not promote the business. Just by keeping in contact, he could already pass on the message that he is awake and actively working with his business. Hitherto, he has not formally maintained contact with his clients; he has not thought of it as important until recently. Overall, he now strives to maintain existing contacts and to serve as well as possible all emerging contacts. Increasing his marketing effort is important, but he does not want to overdo it, since he has a marketing company who is taking care of product marketing. He says:

“I should first make a list of all the customers who I have done work for. I should contact them, perhaps just for Christmas greetings or to say ‘Have you looked at what is new that has emerged from me?’ I noticed back in the DBN education that I was entirely lacking in contact-making skills. Since then I have written down various parties who could be interested of these kinds of things, but I have not contacted them yet. Instead, time has been spent on taking care of practical matters. I should create my own customer base, standardize it and write it all down.”

(G)

So far, to cope financially has been the most challenging aspect in being an entrepreneur. Although DEG became self-employed to allow him to operate as a “free entrepreneur”, he is still constantly concerned with financial aspects. Hence, to be able to work with what he desires, he must think how to get along and what he will live on. After the first years of self-employment, he feels that the order flow is big enough that he does not constantly have to think of it. In addition, the standard product brings a nice sum of money annually. There is a small concern that the raw material producer could stop producing the special kind of material used in his products. This is unlikely, but would cause tremendous problems in finding new suppliers.

In practice, DEG does the VAT declarations, but has a bookkeeper to take care of the business accounts. Overall, he claims not to be considering the financial aspects too much but is increasingly trying to focus on these, too. If the pricing is right, where he could possibly save or what is being done unnecessarily? He is more and more concerned if he does things in the wrong order, which easily becomes expensive. Financial issues are vital in entrepreneurship, and, thus, he wants to improve his
awareness of them in the future. Since the paying of the patenting expenses, DEG has not reinvested considerable proportions of financial capital into the business. During the past year, though, he has started to earn larger sums from his products and sees the need to invest some of the extra income into the business. The investment needs are mainly associated with marketing; for example, he could update his homepages or produce a new brochure. In addition, he would like to find a new studio of a higher standard since currently he does not want show the studio to anyone. A nice studio with a showroom, would allow him to organize customer meetings there. It would be a service form and support the image of a solid business. Overall, money is important in the production process, since raw material purchasing and subcontractor costs are considerable. Some subcontractors demand half of the total sum at the moment the contract is signed. One week’s work at the subcontractor becomes expensive, since, for instance, a woodworker earns €50/hour. In some cases, he must pay half of the money upfront, before the production has even started. At that point, he cannot be sure that the customer will eventually pay as promised. Increasingly, he is seeking to move the production costs to his customers, especially when dealing with foreigners. However, they also pay the first half just before delivery and the other half after receiving the goods.

In general, DEG always strives to lock his royalties to a certain sum per sold pieces, not a percentage but a fixed sum. For example, if his marketing company sells smaller amounts the royalty sum becomes larger, and similarly it becomes smaller if they sell more. This makes the marketing company work harder, but they make sure that the price stays as high as possible. Hence, his royalty is in any case the same regardless of the marketing company’s negotiation power. Demanding this kind of treatment was only possible because he had the patent. Furthermore, so far he has not tried to licence the patent, but he is ready to trade it if someone is ready to pay enough money for it. Most likely, such a purchaser would be an international company, as domestic producers do not have the capacity to invest so much in one single patent.

5.7.4. Execution and modes of exploitation

Before graduating, DEG had already founded a trade name and started to earn on his own design-related ideas. Since then, he has earned enough to live by selling his own products, but naturally he has worked hard to make it possible. Overall, he claims that he does not have big living expenses, as he does not have a house mortgage, or expenses from owning a car. He finds it pleasing and attractive to live by selling his own products. Currently, he is planning to change the business mode or at least the business name, which does not resemble his current business activities. However, before making any changes, he would like to clarify the business model and decide what really to focus on. His main income derives currently from one product idea and this is not optimal in the long run. Potential customers become easily bored if they start to notice the same products displayed in several places.

Regarding his products and his own product family, he desires to design such products that advance the acknowledgment of him as a product designer. He aims at designing products that are appreciated by their consumers and also to constantly increase the overall product assortment. According to him, products have a certain life-cycle and, as other product designers say, one should have around ten products that sell at least to
some degree. These products should be targeted at different sectors and aimed at different segments, as well as capture different price ranges and varying materials.

DEG is eager to outsource large parts of the production process to subcontractors. He has divided his products into artefacts and volume production, and of these he mainly assembles the artefacts. Even in the case of a unique piece of art, his subcontractor often produces some of the necessary components. On the other hand, he is currently striving to raise the demand for artefacts, which will eventually increase his time devoted to production. Currently, he works with his hands approximately two weeks in a month. The rest of the time is used for design, paperwork and meetings with his agent and some clients. In addition, DEG has outsourced most of his sales to two different design promotion companies, one selling volume products and the other artefacts. The idea is to have a separate channel for selling artefacts and volume products as they are targeted at different customer segments. The substance of collaboration was clearly negotiated and agreed upon when making the sales contracts with the companies in question. DEG wanted to continue working with unique pieces, so in the contract it was defined how uniqueness differs from standard products. Consequently, one of the companies has exclusiveness for certain of his product models and he receives a royalty for all sales. The other company sells artefacts, which by definition are made by him as the designer of unique artwork.

Although DEG has solid experience and knowledge of advertising, he prefers to let others take care of marketing his products. Accordingly, he claims to value others’ opinions and believes he is biased towards his own operations. An outsider may more objectively take care of the marketing, but he also wants to continue working on the graphic layout himself. He would like to continue assembling material, for example, by responding via an interview regarding his ideas and preferences regarding marketing. After that, someone else does the rest to enhance the marketing, except the visual image which he would gladly work on himself. Consequently, also sales are outsourced and standard products are manufactured at a subcontractor, but DEG still wants to be to some extent active in improving practical matters related to development, production and promotion. Neither he nor the marketing company has exclusive contracts with the producer, which allows him to change producer due to cost issues, for example. On the other hand, the quality of the subcontractor is known to be of a high standard. Currently, the challenge is that the marketing company for standard products does not have the capacity to introduce new products to the markets. They have marketed the initial product innovation, so that nowadays they do not have to make enormous efforts to ensure a stable demand.

“Originally when I signed a contract with the company that sells volume products, we identified what it concerns and what it does not. I said that I want to produce and work with unique artefacts, and then we defined how the standard must be changed so that is unique. They have exclusive rights to certain models and that is under contract secrecy, and based on royalties.”

(G)

DEG has considered that there is enough business to hire an employee. This person could focus on systematic contact-keeping with clients, bookkeeping and other relevant operative tasks. The challenge is to find someone who is not a design practitioner, but who still understands about art and design. This is something that he has been thinking of, but somehow he feels a need to see the business more clearly and with a longer time
perspective. There should be something to aim for before it is worthwhile to hire someone. Currently, he is in a sense not thinking too much about the business, and instead he is working on a shorter time span (half a year), aiming to finalize an artwork and to participate on two exhibitions. Nevertheless, he believes that it would be important to think more over future business scenarios, several different scenarios, and while working onwards, some of them would drop out. Preferably, he would work more with project-based work opportunities in the future. This requires that his name becomes a household name among larger interior firms, who would then contact him and ask him to join larger projects. Such a reputation could be achieved by creating good products and by ensuring a sufficient sales volume, which would make him interesting to larger organizations as a designer, too. Hitherto, he has only been able to design for his own needs, but then others, too, would value him as a potential designer. To market oneself is somewhat challenging in this light and in Finland talent is normally recognized only after they have been recognized abroad. Personally, he is not ready to move abroad, but would be happy to work for foreign companies from Finland. Currently, he is establishing a potentially big collaboration with a large Finnish design company, but it is too early to talk about.

So far, his long-term business planning has been rather wild visioning, but perhaps the realistic vision is to develop the product family to the point where someone would really become interested. Hence, that party would be ready to purchase the entire palette, which would allow him to focus on making more artefacts and other forms of creative arts. On the other hand, working with developing volume products in the near future is interesting. Currently, it appears that the artefacts are also slowly reaching the international markets, via two established contacts. Moreover, he would like to organize smaller art exhibitions and to receive grants for a longer period. He has a passion to be able to work in the plastic arts for a longer period, free from it being his livelihood, which should be a fairly realistic short term aim. In the future, he would like to establish his own shop and studio in which he could sell products designed by him together with a couple of employees.

“There are other ways to use my creativity than through these current products. Truthfully considering, I have not at all closed off the option that I could emphasize work that is more artistic. Now, it seems that the international markets could open to me. At least, the second contact has not yet sold so much, but anyway. In a way, the existing product family lives as long as it lives, and then I shall start to do new things. Not under pressure, only if new ideas are born and there is a demand for them, some continuity to it. Personally, I would like to focus more on work in the plastic arts, individual work and larger projects. In addition, I would like to organize arts exhibitions, and perhaps receive a longer grant, which would allow art creation without self-employment obligations.” (G)

In the future, DEG desires to become a free and creative artist who would somehow have his income secured. However, to ensure his income there remains the need to conduct business, but perhaps you can also be an artist and simultaneously do business. In any case, he would like to work as an artist someday in the future. Similarly, he wants to continue working with design, which is, according to him, very close to creativity and in fact makes working with art one form of creative design.
5.8. DESIGN ENTREPRENEUR H

Design entrepreneur H (DEH) develops and brings his own product concept to the market. He has no formal education in design, but has a solid interest in working as a designer. He has studied history and philosophy. He has designed products as a leisure pursuit since childhood. Currently, he works in another profession, but develops his product-related idea on a part time basis.

5.8.1. Reasons for self-employment

DEH values himself as an active person who has courage, purposefulness and goal orientation. In that sense, he always focuses on specific tasks to accomplish. However, he also agrees that his personality is somewhat too easily employee-like. DEH describes his entrepreneurial process as a learning process, which he entered to enable more thorough sense-making. He has previously experienced rather fruitful discussions with more experienced entrepreneurs. Commonly, they are rather practical persons, regardless of which industry they operate in. For instance, if they are faced with a problem, they will fix it immediately. Being an entrepreneur requires activity and not too much simply thinking. For him, it feels somewhat controversial to function like that, as he also likes to have more in-depth academic discussions. On the other hand, he believes that a person has many faces; perhaps it is possible to develop the other side, or at times use other, more hidden, abilities. Nevertheless, entrepreneurship feels to him a lot like learning and something that must be done consciously, not something that happens automatically. Even so, it is something that he feels is rewarding and fun, at least at the beginning of the process when development occurs fairly easily. He says:

“Activity is where it derives from and from courage, self-confidence and goal orientation. Therefore, there is a task that you want to accomplish, and it is interesting to learn from oneself. I have an employee-like character to my personality, ‘Give me a work task and salary and I do it’. It is great to notice that I am also capable of productivity alone.” (H)

According to DEH, he has a somewhat risk-averse nature, which was the reason that he applied for a career within the flight industry. His idea was to get a good profession which he finds interesting whilst working with design on the side. Design may well become his main profession in the future, and he claims to have a clear vision and road map of how to accomplish this. Nevertheless, he has no formal education in design and no practical work experience in the field. In contrast, he has since childhood been actively designing products and has an ambition to become self-employed within the design sector. As a result, he aims at starting slow, by producing a prototype of his product and then hoping for further interest from potential clients. If demand increases, he is willing to consider quitting his current career. He says:

“First I need to get a prototype, and it could be a smaller workshop that assists in product development, etc. I need to find one and get the co-operation started. I have some contacts already.” (H)
5.8.2. Creation of venture ideas

DEH claims to have a rather different way of thinking compared to designers. Hence, for him it is primarily important to create sellable, nice-looking goods, but designers are commonly interested more in functionality and low production costs. Based on his experiences from working with designers in product development processes, he emphasizes the importance of everyone understanding what is aimed for right from the beginning of the process. It is only natural that during the process someone ends up going in another direction, but then it is necessary to talk and work towards a common agreement, or otherwise break up the collaboration. One could compare the process to making movies with a basic script, director and producer. Everyone needs to work together and stand behind the script that is modified during the developing project. In that sense, the basic drawing of a product is similar to that script:

“I like these kinds of fine principles, but is it an artistic or some other form of vision? I find it important that it looks good and that it will sell. Designers often emphasize new usability features and cheaper production costs. These are the kinds of values that they have.” (H)

DEH has recently collaborated with two designers in considering market demand for his own product-related idea, by creating drawings, mind maps and by identifying various customer types. The basic product concept is ready, but the model drawings are still missing and will be done next in the process. From a commercial perspective, the customer focus group should be targeted, by specifying where the potential actually is. The product and development process has benefited from working with drawings and mind-maps. Categorizing pictures based on person typologies helps in clarifying various aspects of relevance; for example, the importance of specific product features in relation to sex, age, education etc. Many of these ideas can be thought in the mind ‘theoretically’, but it is important to conduct the process and also visualize it. In that way, it is easier to draw away aspects which are not of relevance.

“We have from the start in the design process considered the object, or needs among people, and then created mind-maps and drawings. In addition, we have mapped different types of individuals and started to gather basic design features. It is pleasing to notice that this manual work brings results. Although it is possible to consider these ideas beforehand in the head in a way theoretically, one still needs to go through the process. At least it cleans away certain things. The aim is to reach a relatively narrow target segment for this product. For whom would this kind of a special product be directed? It is in development anyway.” (H)

DEH receives ideas from reading approximately 15 magazines, from technology to women’s magazines. Overall, ideas seem to take time to emerge, and he has not been able to invent a process to speed it up. On the other hand, he claims that the human brain is ‘comparative’, which means often copying something functional from one context to another. He has a notebook in which he writes down interesting things, for instance, an internet page, etc. He notes things down so as not to forget, since sometimes it can take a long time before he checks his notes. Normally, he has to get a better overall picture of the context before product ideas emerge. Consequently, ideas emerge in pulses, starting from the initial note in the book and the consequent widening of his understanding. Ideas emerge mostly at night as he does not have time for it during the day. He cannot recall ever having woken up with a fresh idea in his mind, so ideas come to him while awake.
5.8.3. Resource availability

DEH has previously studied philosophy and history at university, and recently he graduated as a professional aeroplane pilot. Regarding design, he has for many years enjoyed drawing buildings and boats, which correlates with his dream job as an architect. However, he has actually never seriously applied for any education in that field, but for some reason he always returns to the thoughts of working with design and finds it always just as interesting. Now, he has thought that perhaps he does not have to study it, but instead start to put things into action and otherwise stay close to industrial design. Regarding education, he assumes he has studied a considerable amount. Now, he wants to use his acquired knowledge and show the world that he is capable of something and actually prove it. He feels that his education has provided skills, information and knowledge which he wants to apply and show. In addition, he has artistic abilities, even if he has not hitherto received a professional education in design. He says that he would like to become known as a designer, which does not necessarily require a related education. Instead, he believes that entrepreneurship could be a means for reaching the status of designer, as then he would at least himself learn the skills of designing nice products. Furthermore, during the past few years he has received experience which makes him feel adult. He has educated himself enough, and now he wants to learn more as a growth process, by attaining knowledge from his surroundings. His previous experience supports the initiation of entrepreneurship, but not in such a way that he is extremely experienced and could benefit from this in the process.

DEH claims he is outside the “inner circle” of industrial design because he does not have a design specific education. In practice, he cannot become a member of, for example, designers’ guilds and work unions, which generally require a field-specific education from their members. In the past, it was more common to be a self-made designer or architect, but today most designers have a formal degree from somewhere. Nevertheless, DEH is confident that he can become an accepted and recognized designer without a formal education, but it will require some time and effort on his part. On the general level, he feels that other actors within the field accept him, are friendly and value his courage. So far, he has mainly mapped what kinds of players exist and who could be important to collaborate with in the future. Regarding contact creation, he says:

“In the beginning it was exciting, or the first few times. Then confidence grows, but it is important to have some purpose for the call, or something that you want from the person you contact. Perhaps I awaken an interest when I have these goals present. I think that this kind of reasoning appeals also to these people, since they do not have time to chat ‘I have this kind of idea, do you take it or, are you interested or not?’ I am still a little bit nervous, even if I have learnt something. Still, I do not feel that I am an experienced negotiator. It is neither easy nor simple.” (H)

In his case, network creation has been deliberate, without any support from previous studies or work experience. For example, he has some established contacts regarding the production of the first prototype, but seems to lack an extensive network in relation to industrial design. The father of DEH is self-employed, and his father’s example has shown him that it is possible to earn a good living being self-employed. In addition, his father has established contacts with potential financiers, which can be used when needed. At first, when he presented the product idea to his girlfriend, she became upset
and did not understand why he wasted his time on something like that. However, more and more, she is becoming supportive, perhaps because she understands the importance of the project for him. However, he was offended when she initially talked down his idea.

DEH has some role models for his own business. These entrepreneurs have set up their business after producing products to their own desires and needs. Simultaneously, they have realized that similar products do not exist on the markets:

“This company started off by first building a product for their family and then noticing and wondering why similar products are not offered on the market. Then they started to create a business out of it. Then there is another company that produces special-looking luxury products. It is globally something of a pioneer in design and in their specific field of business. It was it in the beginning of the 1990s that the owner built the first dream product for himself. Then, he slowly started to build new similar ones when others started to demand such products.” (H)

If DEH had sufficient financial resources, he would construct the first prototype over a period of one year. He admits that he could actually scrape together such funding, if he really decided to. However, he wants to find external funding, partially to verify that the business idea is valid from the start. He could also borrow money and build the first product, or establish a firm and apply for governmental product-development funding (Tekes). Until now, he has not needed any financial capital, but from here onwards nothing will happen without the means to design and produce a prototype. Overall, the realization of the business idea requires considerable capital, especially if he decides to build the prototype. Another option would be to market the product idea only on paper and build the first product eventually when someone is willing to pay for it. However, that would also require financing to cover expenses from, for instance, sales persons and exhibition participation.

5.8.4. Execution and modes of exploitation

DEH has not yet registered a business, but will do so when he starts to apply for product development aids from the governmental offices. He has discussed the issue with experienced entrepreneurs, who have said that there is no point to found a business too early, since it only unnecessarily increases the workload and bureaucracy. Before getting this advice, he was confident that he would need a company with business cards and a webpage. Although the business card would be good for passing on contact details, he does not need a business. Similarly, he does not know yet what actually to put on a company webpage before having the prototype of the product. Earlier, he missed the business structure around him, but these entrepreneurs have slowly changed his mind. Before, he felt somehow lonely and insecure about not having a business name to base his arguments on. He believed that a business and a nice title from a school would somehow add credibility and trustworthiness. Hence, perhaps he lacks self-confidence to perform without given boundaries, something that he is fighting to eliminate. Lately, he has been more capable of operating freely and getting things done. Currently, he wishes to have Tekes to back up his project, which would presumably work as a trust builder towards other future stakeholders. He claims he is able to operate the process for quite a long period as a private person before registering an official company:
Practically I would need to do it, when I apply for grants. Then I must found a company. I have discussed this with experienced entrepreneurs, who say that it does not make sense to found too early, since it causes unnecessary work and bureaucracy. Eventually, I need to found a company when money starts to flow, and I need the support from Tekes. Well, they work also with private persons regarding development projects.” (H)

The product DEH is currently designing derives originally from his own desires, but its modified design aims at satisfying an unsatisfied market demand. The product is innovative in its own way and very different from available products on the market. Industrial design has a central role in extending traditional and introducing new product features. The product is not primarily aimed at traditional competitors’ customers, but more at finding new customers groups that are not familiar with such products. The product brings new features to the market and allows the usage of new marketing channels. Overall, he seems to assume that people are interested in this product idea but suggests that test marketing is needed before knowing this for certain. In addition, he cannot say how many products could be sold and if Finland would be too small a market. Perhaps the market scope should be from the start the Nordic countries and the Baltic countries, which would allow a sufficiently large production volume.

DEH feels that working with a new innovative product is rewarding since, especially in the beginning of the process, it permits the freedom of creativity. According to his own words, in contrast to professional designers he does not have a problem in applying design to reach commercial success. To manufacture a quality design for a low price seems to be the ideology of many designers, but in practice it is rather hard to reach this ideal situation. The products of DEH will be from the start so expensive that it limits potential clients to those with money. For him, it is important to create a good-looking product which has a demand. For designers, good looks do not exist alone, but it derives from the functional philosophy itself. So far, DEH has felt it most challenging to materialize the actual product, which has been the main aim in his activities. In connection to that, he is trying to specify the right means to reach that goal. At this stage, he is not aiming at the entire business process, but more specifically at developing the product and at assembling resources such as other designers and financing. His challenge is to get people to support his aim and to understand and believe in it.

“I have discussed with a few potential distributors and a little bit like that. The discussions have been on a quite general level, we have not discussed so much about this. It is not clear if these field-specific professionals believe in this and that someone might purchase it. On the other hand, this is new, so the professionals are not necessarily the right people to judge this. They prefer to sell a product that they have found good and have sold for twenty years. They do not necessarily become enthusiastic about such a new idea before it has been proved that it is a good product.” (H)

In addition, he is trying to write a business plan and to meet people with whom to discuss the idea. In the future, he would like to work with project-related work tasks, creating ideas and scanning the environment. Hence, he would like to see himself as the company owner, who may do whatever he pleases.

“My dream work would be to read magazines and generate ideas. I get a lot of pleasure from participating in all kinds of projects. I am in a sense a producer type, who is more orientated towards creativity than organizing practical things.” (H)
5.9. SUMMARY AND DISCUSSION OF IDENTITIES

The design entrepreneur interviews brought insights from eight social contexts and entrepreneurial processes. The following reflection is conducted to identify potential problematic forms of authority which might have influenced data construction and interpretations in this study. More specifically, the reflections will focus on what design entrepreneurs said and potentially intended when they talked about self-employment, venture ideas, resources, and modes for organizing their entrepreneurial processes. I saw it as important to consider what it would imply if respondents framed their answers either unconsciously or consciously in a certain manner.

Concerning their reasons for becoming self-employed, the interview transcripts included variations concerning the underlying reasons for making the choice in the first place. Typically it was described as a choice of lifestyle, including a certain freedom and an enjoyable way of working. Some of the more inexperienced respondents had a quite romantic view of design entrepreneurship, but most admitted that it is challenging to be a self-employed designer. The reasons for this were mainly the limited experience and competence associated with entrepreneurship, in addition to financial issues. The more experienced design entrepreneurs showed confidence both in design and business-related matters (DEC, DED, DEG). Design entrepreneur DEF was the only one with a formal business education. She clearly wanted to show confidence in combining design and business matters, despite her previous business-related failures. Moreover, most of them were keen to work with idea generation rather than business development. Nevertheless, it is possible that for many of the respondents’ self-employment was the only option to enable work with tasks that were associated with their profession. For instance, DED originally chose self-employment to avoid the risk of becoming unemployed. Some explained that they either have been, or they are, working with something else in addition to being design entrepreneurs due to their unstable incomes (DEB, DED, DEE, DEH). Similarly, they all explained that being a self-employed designer requires constant stabilization of the finances, even if they claim that money is not their primary objective. For instance, DED described in detail her story from being a poor craftsman, who collected the necessary resources over the years to enable the creation and commercialization of her venture idea. Money was, according to her, never the objective, instead she was curious to learn more.

Concerning the creation of venture ideas, almost from the beginning of data collection I realized that most design entrepreneurs spoke about the creation of venture ideas in association with product development rather than the creation of new organizational business ventures. This interpretation signified that design entrepreneurs primarily focus on design and development of new products when discussing entrepreneurial processes because they see design entrepreneurship as short-sighted, project-based work. The design entrepreneurs claimed generally that they generated ideas via creative behaviour, either within or outside the boundaries of production and business processes. Design entrepreneur DEC argued for the necessity of constant change in working tasks to avoid boredom. Moreover, design entrepreneur DEF claimed that other industrial designers often fine-tune their ideas and may ignore customer needs and production means, which she regard as important due to her business education. In line with this, design entrepreneurs DEA and DEC allowed less restricted creation, especially at the beginning of the process, whereas design entrepreneurs DEF, DEB and DEH preferred
to consider business-related aspects more or less from the start. Design entrepreneur DEE again continued to create ideas strictly from a design perspective even after some harsh experiences from business-related obstacles. On the other hand, design entrepreneur DED claimed that her ideas emerged from listening to customers, and eventually by combining their needs with her design-related desires. However, the respondents commonly agreed that a customer and production focus is needed at some point in the process, since otherwise venture idea creation will only please the involved designer. Most of them had several product-related ideas in the pipeline, but typically these ideas were still at the idea or prototype level. This may explain why some of them emphasized that it was challenging and time-consuming to develop one’s own ideas (DEB, DEE, DEF, DEG, DEH). For instance, DEE claimed that there had been pre-orders, but had found it impossible to agree on the terms with potential producers. As a result, idea generation is felt generally to be fruitful, whereas production and marketing-related tasks are preferably avoided. For instance, DEG works both with artefacts and volume products to preserve motivation and creativity, but has primarily outsourced production and marketing.

Concerning the execution and modes of organizing, the majority of the respondents have only a trade name and they lack long-term goals or business plans. Design entrepreneur DEH claimed that there is no need to register a company before money starts moving. Generally, the respondents had at least some product-related ideas, even if they were primarily offering design as a service. Some of the respondents seemed quite pessimistic concerning the possibility of finding working opportunities, or at least receiving a satisfactory income (DEA, DEB). In any case, most of them indicated that their sales work had been insufficient, which may actually be the reason why they lack work opportunities in the first place. On the other hand, design entrepreneur DEC claimed to be to some extent able to select among a repertoire of preferable client projects, but he lacks time for his own product development. He has some vision and ideas concerning the future, but somehow he wants to preserve the image of a bohemian lifestyle. Design entrepreneur DEB emphasized goal orientation and business focus to a surprisingly degree because he finds them to be necessary for receiving an income from design entrepreneurship. Overall, he focused greatly on describing the necessity for earning a living to support his family. On the other hand, design entrepreneur DED is more concerned with fine-tuning product features and business processes since, according to her, everything other than outsourced production is in order. Design entrepreneurs DEE and DEF both claimed that there is no need to build the business around their personalities. Instead, they believed that it would take time away from conducting design. On the other hand, design entrepreneur DEG would like to see his name as a household name, since it would allow him to design products in collaboration with larger companies.

Consequently, by examining several design entrepreneurs, it became possible to group them. I chose to categorize them based on their design and business-related identities, as shown in Figure 12. These categories were by no means definite, but more based on my intuition from interpreting the transcripts. In that sense, design entrepreneurs DEA, DEB and DEE all had a formal education and at least some experience of working with industrial design. However, they all more or less lacked formal and practical experience of operating a business, apart from design entrepreneur DEB, who had been self-
employed part-time during his studies. In that sense, they all made clear from the start that they were still to some extent seeking for their future, both as design entrepreneurs and as industrial designers. Therefore, I interpreted their identity as that of an inexperienced industrial designer who had few other options than to become self-employed. In addition, design entrepreneur DEH was the only one who lacked a formal education and previous experience related to industrial design and operating a business. He clearly tried to show confidence in relation to design entrepreneurship, even if admitting associated limitations both regarding design and entrepreneurship. Therefore, I interpreted his identity as that of a hobbyist with a sincere interest in design-related matters.

![Design versus business competence diagram]

**Figure 12  Design versus business competence**

On the other hand, design entrepreneurs DEC, DED, DEF and DEG all had a formal education and experience of working as industrial designers in addition to at least some years of experience from self-employed work. The only exception was design entrepreneur DEF, who was younger and less experienced than the others, but then again she was the only one with a formal business education. I felt occasionally that she tried to give the impression of a fairly experienced industrial designer who was considerably different from her colleagues due to her formal and practical understanding of business-related matters. Even the others made repeated reference to notions related to their experience as industrial designers and how they were satisfied at choosing self-employment as their means for earning a living. Perhaps, they wanted to show to me that they were confident in their career decisions, and perhaps they wanted also me to realize that they had selected self-employment among many other career options. Therefore, I interpreted their identity as that of a professional industrial designer who was able to earn a living also by being self-employed. The next chapter introduces my preliminary interpretations from external actor interviews. The underlying analysis that steers the research focus from design entrepreneurs to external actors is presented in chapters 4 and 7, and more specifically in sections 4.3.4 and 7.1.8.
6 INTERVIEWS WITH POTENTIAL CUSTOMERS, SUPPLIERS AND COLLABORATORS

This chapter presents my preliminary interpretations of data from interviewing thirteen external actors, who were professionally acquainted with design entrepreneurship. The presentation is completed to receive a more complete picture of how design entrepreneurs organize their own entrepreneurial processes and how they contribute to other agents’ product development processes. The structure of this chapter builds broadly on the elements of entrepreneurial processes and the findings from design entrepreneur interviews. The section begins by briefly introducing the characteristics of interviewed external actors (6.1), and comparing their differing needs and resources with those of the design entrepreneurs (6.2). It also examines what it implies to build relationships with design entrepreneurs (6.3). Thereafter, the section continues with presenting material on product development processes (6.4), as well as decision-making related to product development (6.5) and commercialization of venture ideas (6.6).

6.1. Characteristics of external actors

Overall, the study included representatives from various kinds of production and marketing companies. In addition, design advisors and design experts were interviewed to receive a holistic picture of the context examined. As can be seen in Figure 13, design entrepreneurs are assumed to work with producers, marketers and design advisors in order to advance their business.

![Figure 13 Triangle of design entrepreneurs and various external actors](image)

First, the producers in the figure above interact with design entrepreneurs in a multitude of ways. They purchase design services for their own product-related projects but also operate as subcontractors to own product designers and marketing companies. Pr1, Pr2 and Pr3 are top managers and owners of three different design-manufacturing companies. Each of their companies has its own product series, but they also operate as subcontractors. Their companies primarily receive new product-related ideas from identified market demand or from external design entrepreneurs. Demand-driven ideas are commonly developed in collaboration with appointed external experts, the internal
product development team, and appointed external experts, such as design entrepreneurs. When dealing with externally-stimulated ideas, the producer might operate as a supplier to marketing companies or their own product designers. They may also agree upon co-operation, to develop and bring the product ideas to the market together. Another option is that the producer purchases or licences production and sales rights from the other actors. Generally, the production companies have either domestic or international distributors who take care of their own products’ sales and promotion. In that sense, they often lack direct contact with end-users. Pr4 is the CEO manager and owner of a company that produces volume products. The company differs from the three previously-introduced producers, since it produces and distributes solely its own product range. Their product ideas are mainly identified by the internal marketing team, who in turn outsource product design to an appointed design agency.

Secondly, regarding marketers, Ma2, Ma4 and Ma5 are CEOs and owners of four different design marketing companies. Their companies have their own product series, mainly designed, produced, and assembled by their suppliers or collaborative parties. The exception is Ma4, whose company designs a large share of their product range in-house. The product-related ideas derive mainly from identifying customer demand, and also from working with their own product designers. The marketing companies may sign contracts with their own product designers to acquire rights for producing and promoting their product-related ideas. The companies commonly have well-established contacts with their domestic and international distributors, and they may have established relations with their end-users, too. Moreover, Ma1 and Ma3 are the owner-managers of companies that represent a slightly different line of business from the others. The business of Ma1 focuses on assisting selected design entrepreneurs in business administration and promotion by working as their design manager. On the other hand, the company of Ma3 is specialized in offering design strategy and promotion services to its client companies. Consequently, the company assists clients in managing and ensuring the quality of product development processes. They also assist in selecting appropriate suppliers and collaborative parties (e.g. design entrepreneurs) for the client companies’ projects.

Thirdly, design advisors assist design entrepreneurs mainly with business-related matters, but also with issues associated with creativity. In that sense, they support the development and commencement of designers’ entrepreneurial processes in various ways. In addition, they have a particular good overview of design entrepreneurship. For instance, Ad1 is a manager of a business incubator that assists newly-founded companies in becoming established within the creative industries. The client companies’ business ideas vary from service provision to their own product design. Over the years, the incubator has supported some 120 start-up companies. Ad2 is the CEO of a design promotion organization, which primarily aims at endorsing the usage of design in the economy and society.

Fourthly, design experts have solid experience and knowledge associated with the industrial context, design entrepreneurship, and associated entrepreneurial processes. They have worked for several years with industrial design as designers, in self-employment and/or as field specific academic researchers. For instance, De1 is the creative director and partner of one of the larger Finnish industrial design agencies. In addition, De1 has long and extensive experience from working with industrial design in
association with business, education and policy-related matters, both at the national and international level. De2 has experience from working for several years as an industrial designer and design manager for one of the most recognized Finnish design companies. For several years, De2 has been an academic researcher with an interest in industrial design and associated business.

Consequently, the comments from design experts and advisors are valuable since they offer a structure, and enable triangulation and comparison of material collected from other interviews. In that sense, they are regarded more as specialists with a thorough insight rather than as direct customers, suppliers or collaborators for design entrepreneurs. This short section introduced the interviewed external actors, and in the next section the analyses of interview material begins.

6.2. DIFFERING NEEDS AND RESOURCES

The resource-needs of producers, marketers and design entrepreneurs seem to some extent to be shared. More precisely, all of these parties may need the others’ resources to complete their product development processes. For instance, production companies might need assistance associated with product development, promotion and distribution, while marketing companies might need assistance with product development, production and distribution. For example:

“The majority of Finnish companies lack internal design competence, even if they have internal product development.” (De2).

Design entrepreneurs might seek clients for their services, or they need assistance with producing and promoting their own product design. In Finland, there are a limited number of product producers. In conjunction with the increasing number of industrial designers, this has resulted in an oversupply of product-related ideas. Those producers and marketers who purchase industrial design services do it generally on a project or resource basis in close association with product development. They may also work as collaborators, suppliers and/or distributors, or as customers who purchase or license the production rights from own product designers. Nevertheless, for design expert De1, it appears as if most companies buy industrial design as a service on a project basis, rather than purchasing specific resources or product rights. All producers, except producer Pr4, also operate as subcontractors in addition to having their own products. This kind of business diversification decreases their associated business risks and stabilises their production flows.

According to design advisor Ad2, larger companies with internal designers also use external designers. Consequently, these companies receive fresh ideas and the chance to bounce their ideas around. However, among the interviewed producers and marketers, only producer Pr2 and marketer Ma4 have in-house designers. Nevertheless, all producers have employees with technical competence associated with transforming design into production. In the past, in-house designers were more common, but currently external design services are used frequently. For instance, Producer Pr2 designs a large share of their company’s products. Therefore, the company does not purchase design services to a great extent, but it collaborates with some own product
designers by producing and/or distributing their products. In addition, it also works as a subcontractor to larger distributors.

In general, design entrepreneurs are felt to be not particularly socially active, especially outside their professional circles. Networking and communication should be regarded as important and it is essential for design entrepreneurs to understand the importance of creating associations with important process participants. However, design advisor Ad1 believes that the field is currently undergoing a positive transformation, since the inwardness seems to be slowly disappearing. Nevertheless, marketer Mal argues that many designers need to improve their communications skills. In the long-term, it is important for them to create good relations with all kind of companies, associations and individuals. The respondents seem to agree that design entrepreneurs need to co-operate with a wide range of actors. According to design advisor Ad1, design entrepreneurs should rely more on their business networks and available business advisors. For instance, there is plenty of state subsidized assistance and services available for design entrepreneurs, and they should also talk and share ideas with other entrepreneurs. However, instead of considering these things upfront, they start to consider where and how they could operate a business, produce products or sell their services only when already self-employed.

“Perhaps design entrepreneurs do not know how, or they do not have the courage to approach these parties. Now, they just try one door and if it does not work, they will approach another door. If that does not work either, they might start wondering what is actually wrong. There are a lot of things to consider; now, when you ask, I realize how big gaps there actually are.” (Ad1)

According to design adviser Ad2, design entrepreneurs must reach out and actively seek for business contacts, since no one will come after their product or services. Similarly, design advisor Ad1 points out that this requires a constantly active grip, but admits that too many design entrepreneurs stay alone and wonder where they could sell their ideas and services, and, ultimately, if anyone is even interested. Overall, business contacts are important, and design advisor Ad1 suggests that design entrepreneurs commonly expand their networks so that one thing leads to the other, but without a clear goal orientation. As pointed out by design expert De2:

“Industrial design agencies are not doing a lot of marketing, so their assignments come via a ‘grapevine’-principle. They have done good work for someone, and eventually they receive more assignments via the client companies’ networks.” (De2)

The creative competence of design entrepreneurs is an evident resource for both them and their potential co-operating partners. Design advisor Ad1 suggests that, at best, properly directed creativity may become the backbone and foundation for building design entrepreneurship. However, experienced design entrepreneurs, too, to some extent face challenges related to commercial aspects. According to design advisor Ad2, the challenge associated with combining creativity with commercial capabilities is a recognized problem at least in Finland. Among design entrepreneurs, business is often the more offending side, which may be due to their lack of commercial knowledge and experience. They seem devoted towards design as a profession, and they receive satisfaction from creative tasks, but frequently they lack interest in the commercial side and competence in business. Therefore, they need to collaborate with production and marketing parties, but in order to do that they may need assistance from skilled business
persons or design management agencies that can assist in business-related matters. Within the boundaries of such obligations, design entrepreneurs obtain a certain freedom to behave creatively, but as pointed out by marketer Ma1, they may well need assistance in business related matters. According to design expert De2, the same tendency is visible both among own product designers and managers in design agencies, and, thus, she believes that the largest weakness among industrial designers is the lack of business related competences.

Another option for design entrepreneurs is to form co-operatives, where experiences, risks and responsibilities are at least to some extent shared among the members. For instance, design expert De2 argues that it makes sense for young design entrepreneurs to form networks in which both risks and responsibilities are shared when designing goods that are commercially successful. The current trend is that design entrepreneurs form so called “workshops” together, where space and related costs are shared, but each entrepreneur has his or her own company. In any case, collaboration appears to be important for carrying out entrepreneurial processes. Therefore, it may be advisable for both designers with their own product and service providers to find business partners who can assist in production and business-related matters. However, design expert De2 claims that such behaviour is not common even among established design agencies in Finland. One of the largest design agencies just recently hired their first professional manager. She says:

“Design agencies do not generally hire people with business talent, which results in a negative spin. Consequently, they do not grow enough so that they are able to hire an internal manager. If they do succeed in selling enough, then they need to hire additional workforce to cope with the workload.” (De2)

Furthermore, the right kind of attitude is significant for product development and for bringing new products to the market. According to producer Pr2, it is always possible to acquire the right kind of competences and skills if necessary. Consequently, Marketer Ma1 argues that the right kind of attitude is the most crucial resource for design entrepreneurship. In addition, design adviser Ad1 mentions competence and contact networks:

“They should have a solid professional competence. It is essential, since competence is what clients purchase. Then again, contact networks may also be important. Customers do not know about everything, and then good collaborators must be brought together.” (Ad1)

The general assumption is that design entrepreneurs tend to prioritize design instead of financial values and business competence enhancement. On the other hand, the minority of design entrepreneurs who prioritize commercial aspects are not necessarily regarded as less talented designers. Instead, they may be prepared to present their ideas earlier and develop design objects in consultation with their customers, whereas those who prioritize design could find the design to be incomplete, and, as a result, be reluctant to share it with others. According to design advisor Ad1, it is a long process for an industrial designer to become business-orientated and to understand what is on the last line in the balance sheet:

“They have chosen [their way of life] and it is particularly important that they are able to conduct the kind of business where they are able to influence their life and its flow. For some design entrepreneurs, the business orientation grows along the years.” (Ad1)
This is also verified by other process participants. For example, producer Pr1 claims
that design entrepreneurs to some extent have a weakness related to financial
capabilities as well as efficiency of production in their design. In addition, they may
want to adhere to their own ideas. In that sense, producer Pr3 makes the assumption
that designers want to restore the design language and how they have conceived of it, so
that is not radically modified regardless of financial and technological sense-making.
Similarly, marketer Ma4 encourages flexibility and client responsiveness for industrial
designers. In line with this, design advisor Ad1 to some extent criticizes lecturers
associated with industrial design. She claims that they do not focus on entrepreneurship,
and they tend to forward the message that it is worthwhile to remember that designers
do not need to give in on their creative views. Financial resources are particularly
important in product development since such processes always build on insecure future
expectations. According to producer Pr1, it can take up to five years or longer before a
product-related idea starts to yield an income, but it may also eventually be revealed as
a failure. Supporting this view, producer Pr2 claims that it is the producer who is
generally responsible for all costs associated with starting to produce a new product
(e.g. programming of machines, product moulds and material costs etc.). The design
entrepreneur invests working hours associated with product development and potential
construction of prototypes. This makes sense, since the majority of design entrepreneurs
do not possess the necessary resources to develop, produce and promote new products
on their own.

Consequently, design advisor Ad2 reasons that the lack of financing forces them to
adapt to certain raw materials and production processes, those which are in line with the
resources and preferences of both producers and marketers. However, especially in case
of subcontracting, producers tend to require pre-payments for production and for
potential inventories. In a similar manner, as pointed out by design advisor De2,
marketing companies may demand cost-sharing for expenses associated with product
development, production and promotion. For example, design expert De1 has
experience of developing and bringing his own products to the market by outsourcing
production and distribution. Such investments are, according to him, considerable and it
is questionable whether inexperienced design entrepreneurs are able to cover them on
their own. If there is a request for such investments, then marketer Ma1 argues that that
the smallest players, with the least resources available, proportionally carry the largest
risks involved. Nevertheless, she also argues that design entrepreneurs are faced with
opportunities, since their business is often small and dynamic. Thus, they are able to
make quicker decisions, without waiting for conclusions from some product
development committees, as is the case in many larger companies.

The lack of risk-taking willingness and associated financing among producers and
marketers creates a bottle neck, which, according to design expert De1, prevents them
from accepting new ideas to be exploited, producing prototypes and investigating how
products come onto the market. Such risk adversity and the design entrepreneurs’
common lack of own resources hinder new ideas from reaching production and the
markets. In addition, from a customer perspective, it can become risky to collaborate
with a small design company due to the limited availability of competence and delivery
assurance.
Design advisor Ad1 claims that design entrepreneurs cannot afford to develop their businesses because they must constantly make money just to keeping their operations afloat. Simultaneously, they also lack the courage to make financial investments in their business. Nevertheless, certain investments are necessary in order to build a business that looks like a business. Design advisor Ad1 argues that such courage is mandatory and would not request large monetary sums. In general, a design-related business requires an investment around 20,000€, but industrial designers are neither used to, nor willing to, take business loans. Instead, they strive to set up the business with the governmental start-up aid, which is barely enough to provide a living for them. Consequently, sound and realistic seed financing would allow them to develop their business foundations for a little bit longer before there is a need for making an income. As design entrepreneurs are so reluctant regarding taking bank loans, design advisor Ad1 advises them to acquire a few customers before relying fully on their own business. They also need to put time aside and expand their model series, and develop their products sufficiently before pushing them onto the market:

“The weakness of design entrepreneurs is the associated risk. It has to do with their risk-taking propensity. They struggle with small resources, and then they achieve really nothing. This arises as the primary obstacle, people as resources are ok, there is strength and belief in the own cause. However, I bump into the small size of financial resources every day, when I am doing those calculations.” (Ad1)

It is important for design entrepreneurs to plan their future endeavours. In practice, they should dedicate time to developing a business concept and a long-term strategy that states actions towards set goals. Design advisor Ad1 claims that many design entrepreneurs lack a clear strategy, and it is important for them to plan ahead thoroughly, even before deciding to become self-employed. She would like to see fledgling design entrepreneurs dedicate one year to sincerely develop their business concept before setting up a company. Similarly, producer Pr1 suggests that it is important to have a durable plan regarding the product collection and target group both now and in the future. Regarding product design, they should emphasize organization of production and distribution, as well as the implications of price positioning related to potential substitutes:

“Starting design entrepreneurs should finalize the idea and consider the target group, so that they do not present the idea to a wrong kind of company. They should also define the user as well as possible. They should not bring forth only one product, but a more complete concept, even if that is more demanding.” (Pr1)

Marketer Ma3 sees it is particularly important for design entrepreneurs to have a clear vision concerning their future career path. They also need an ability to reflect regularly upon how each individual project connects with this general path. Similarly, design advisor Ad2 believes that starting designers with their own product often have a strong vision concerning their assignment. However, to stay afloat they often undergo a rough survival fight, which requires skills related to design but also competences in commercialization and communication. However, marketer Ma1 suggests that design entrepreneurs have many weaknesses associated with business planning and developing business concepts. Long-term analysis or strategic planning is often not present in their business. For some reason, design entrepreneurs are not willing or able to plan their own businesses thoroughly.
Consequently, design entrepreneurs need to locate customers, suppliers, or collaborative partners who can assist them in linking their design competence with production and promotion-related activities. Taking advantage of such relations allows them to dedicate more time to design when sufficient associates deal with production, business, and market-related responsibilities. For instance, design advisor Ad2 gives an example of a design company producing its own product where the design entrepreneur is able to dedicate all available time entirely to design due to a sufficiently competent business partner. Similarly, design service providers should consider the employment of a person with business skills. Design expert De1 points out that it is possible to operate everything in-house on a small scale, but volume production and sales requires investments and collaboration with others.

“It is not possible to do everything yourself. Of course, it is possible to start production on your own if there is sufficient trust in the product. Many do that, as long as they are able to operate without significant investments. If production requires expensive machinery and so on, then there is a need for considerable demand and volumes to repay investments.” (De1)

According to design expert De1, a designer with his or her own product has several options regarding how to proceed with their idea if they decide to collaborate. One option is that they partner with a business-acquainted party, or identify and contact potential producers and promoters on their own and build the necessary business schemes themselves. He suggests that it might be sensible to sell the idea directly to a production or marketing company who has marketing resources. Then, the design entrepreneur is potentially able to earn royalty income, which is probably the securest way to reach the markets. However, it is a rather big process to become a party in a production-marketing scheme. Therefore, the product must really be good, so that it is desirable and has a high customer value. In addition, it should be easy to produce and promote. According to design advisor Ad2, the domestic market environment currently lacks the type of agents who would act as partners in commercializing design entrepreneurs’ own ideas.

“This structure is repeated in design, production and marketing, and it works perhaps somewhat badly, which is a little bit sad. Perhaps there is a lack of precisely this type of smaller and agile commercializing party who would fulfil an agent’s role, and who could arrange these kinds of lighter versions for smaller actors seeking for new business models. That is a problem structurally, and it is missing currently in Finland.” (Ad2)

Moreover, design entrepreneurs need clients who demand their services, or companies that are able to assist them with producing and promoting their products. However, the majority of design entrepreneurs are chasing the same limited number of domestic clients or potential partners for co-operation, who tend to be famous for their values towards design. Design expert De2 claims that design entrepreneurs strive to match their existing products or competences with companies that produce products in line with their creative desires. Thus, a large number of design entrepreneurs compete for a small number of work opportunities. Further, the potential client companies often organize bidding contests to broadcast their upcoming work openings, and eventually make their decisions at least to some degree based on a cost-earnings relation. As a result, design expert De1 suggests that many product development projects lack realistic financial backing, and design entrepreneurs end up working under considerable price
pressure. This is different from advertising agencies, whose work is commonly more appreciated and receives more resources.

Consequently, both design expert De2 and marketer Ma3 suggest that it would be advisable for design entrepreneurs to contact unproven companies, too, and suggest new products or business activities to them. For instance, marketer Ma3 believes that the field is much broader than the traditional view leads us to believe. In that sense, focusing only on design-driven companies would narrow the design entrepreneurs’ income and competence considerably. However, companies with limited or no previous experience of design must be convinced, for instance, by emphasizing production and promotion efficiency as well as product desirability and a higher customer value. In many cases, the design purchasers have no previous experience of acquiring and implementing design. Increasingly, contact persons in larger client companies are acquainted with industrial design themselves, which makes communication considerably easier. Design expert De1 explains that a professional design purchaser is able to structure the request so that all bidders are treated equally. However, if the purchaser is the product development manager, marketing manager or owner (or in some cases all of these in the same person), then due to the learning process, the requests may develop during the bidding process in favour of someone.

6.3. BUILDING RELATIONSHIPS WITH DESIGN ENTREPRENEURS

In Finland, larger design-intensive companies increasingly purchase design services as concentrated entities. For instance, producer Pr4 states that these kinds of companies may want to limit the number of associate design entrepreneurs, since establishing and maintaining relationships is often resource consuming. Instead of purchasing particular design services separately, they strive to chain these purchases together in their purchasing processes. Consequently, design services are no longer only exploited within product-related research and development. Instead, design is also seen as a function that supports market-orientated post-production activities, e.g. associated with marketing communication and brand value. Design is also a function that supports strategic activities.

Nevertheless, it remains common to employ design entrepreneurs in association with product development, without them having a formal role in relation to strategy, production or marketing. Informal reflection of associated issues may occur, but design entrepreneurs are seldom paid for strategic level consulting work for their clients or collaborative parties. For instance, producer Pr4 has only reflected upon strategic matters with their collaborative design entrepreneurs on a few random occasions. The examination of potential collaborative parties may last for a longer period, before gradually intensifying and forming a lasting business relationship. For instance, design service providers are often first assigned less significant work opportunities, and after succeeding they receive new assignments that are more demanding. As stated by producer Pr1, by then, both parties know what the designer really is capable of, and the designer knows better what the company really needs:

“At first there is a kind of check regarding what kind of a person it is, and what possibly the person is capable of. We do not criticize immediately after setting out. It will become evident
along the road if it is worthwhile to continue, and nowadays we are capable of quitting in time. I have to say that we constantly live on a tight budget. We need to assess if our own solution and vision are better than those presented to us. We constantly live on a small margin, and thus, it is crucial to sense which party is more right.” (Pr1)

Design expert De1 and marketer Ma2 emphasizes that design entrepreneurs should strive to create long term relationships with the company because it is often fruitful for both parties. In addition, the client representatives are likely to continue good relationships even after swapping employees. Similarly marketer Ma1 and Ma5 emphasize long term relations with design entrepreneurs, since as explained by marketer Ma1, the best products commonly derive from long-term collaboration between the companies and design entrepreneurs. If the personal chemistry works, then project management functions and decision-making is clear for all parties. However, marketer Ma3 argues that there are also evident risks with long-term collaboration. It is important that at least some of the people involved change so that no one dominates in the discussion, or the collaboration becomes too goal-orientated. Idea generation must stay fresh, even if not all the people change in the process.

Design entrepreneurs potentially need to collaborate with a wide array of actors. For instance, designers with their own product mainly need customers, suppliers and collaborators to get their product-related ideas produced and sold on the market, and service providers commonly have a customer relationship with similar actors. In addition, design entrepreneurs may need collaborative parties related to product design and development. For instance, service providers may need special competences for their clients’ product development processes which they do not themselves possess (e.g. user interfaces, modelling etc.). Even if such collaboration commonly works out pretty well, design expert De1 has noted that client companies may be reluctant towards it:

“In one project the client asked: “Wait a second, are the trust and non-disclosure issues in shape here?” Then we were forced to go through all the time consuming red tape despite the busy schedule of the project.” (De1)

In general, the assumption is that design entrepreneurs are more likely to focus on design-related tasks, and they anticipate that someone else will take care of tasks related to production, promotion and distribution, as for instance suggested by Marketer Ma3. This is also a time and resource issue for most design entrepreneurs, who often must consider collaboration in order to reach the markets with their design. For instance, producers operate sometimes as subcontractors for them, but more often as customers who purchase their design as a service or product(s). Similarly, design advisor Ad1 observes that sales and marketing are difficult for many design entrepreneurs, so they wish to find a manager, agent or someone who would develop design related ideas with them. However, marketer Ma1 knows that there are only a limited number of promotion resources available, and without such competence, it can be challenging to get products distributed, especially via larger department stores or chains.

It is often rather difficult for design entrepreneurs to build the link between the producer, the marketer and themselves. On rare occasions, design entrepreneurs have established contacts from before, which they are able to benefit from when setting up their own business. However, most of the design entrepreneurs lack such contacts, and for them the link to suppliers is commonly hard to build. According to design expert
De2, this in turn forces them to take care of production themselves, but as a result their volumes remain modest and delivery schedules unreliable. Collaborative parties and clients commonly require certain volumes, but many designers selling their own product are satisfied with small volumes and modest results. Therefore, such design entrepreneurs may find it challenging to locate customers, suppliers or collaborative parties, despite their evident need for support in bringing products to market. For instance, marketer Ma2 previously promoted products that were produced by handicraft workers. In practice, they invested in product-specific tools which were used in production by the subcontractors, but the small volumes resulted in small profits. Similarly, design expert De2 feels that designers with their own product are faced with a supply and demand related dilemma:

“The subcontractors’ problem is that design entrepreneurs should be able to order a certain size of order, but at that stage they have not yet created a marketing channel that will buy the entire order. Then, they are so small that the subcontractors do not want necessarily to produce orders of that size, except relatively expensively, and then the prices go up. This is in a sense a cycle which is hard to escape from.” (De2)

On the other hand, there are also designers selling their own products in Finland, who design their products and even operate smaller design stores with employees. In these cases, they typically have suppliers who are responsible for production, and department stores and other marketing channels that distribute larger sales volumes. Design advisor Ad2 gives an example of such a designer, who operates a small chain of design stores in Helsinki, but uses subcontractors for production and sells the major volumes via traditional distribution channels. In addition, production and marketing companies also frequently initiate product development processes, and, as a result, look for suppliers and collaborative parties to assist in the process. For instance, producer Pr3 subcontracts, but they also have their own product development.

“It works to some extent in the other direction, and then the marketer is the external party who we make a contract with. They sell, but the triangle must always exist: designer, producer and marketing. These three must be fulfilled or it will not become anything. These actors are pretty much the same in our organization. They do not vary much across different product ranges.” (Pr3)

6.3.1. Fundamentals for building relationships

It appears as if pro-activity and previous references represent central elements when producers and marketers decide on appropriate design entrepreneurs to work with. However, in general, the respondents do not actively search for new design talent:

“In the case of new designers, they must be active in our direction. It is seldom that we would do it the other way, because we have our established network, who we work with. Therefore, we operate pretty much around this structure, but they should just be brave, try us out and get in contact. We review them case by case and examine whether there are any opportunities for cooperation.” (Pr3)

For instance, design adviser Ad2 explains that industrial associates contact well-known design entrepreneurs directly. Other designers must normally work their way up and collect necessary references and recognition. In addition, design expert De2 suggests that design entrepreneurs, too, can be rather selective in choosing appropriate
collaborative parties. They want to work with such companies that will launch their products in a good and visible manner, which in turn would give a market push to their own business. Nevertheless, producer Pr3 suggests that the field is relatively small and that established actors to some extent know the other’s competences and references. However, starting design entrepreneurs seldom have a broad palette of references and contacts, even if they are capable of designing good products. Therefore, sales and social skills are important for design entrepreneurs since they must be able to sell themselves to get access. Design advisor Ad2 argues that if a design entrepreneur is not able to sell anything else, they must at least be able to sell their own ideas, since that is the only way to receive acceptance and build a contact network. However, he also underlines that this is a business built on confidence, and so the customer must trust that they will benefit from working with particular design suppliers. The offer must be on the right level, of suitable quality and its delivery assured. The message from the industry is that design entrepreneurs are too often not able to sell their competence in an appropriate fashion. In the worst case potential customers must themselves build the connection between the design entrepreneurs’ capabilities and their present demand. Nevertheless, more experienced design purchasers may actually see this as a competitive advantage.

Design service providers in particular need a good reputation and previous references, since their client companies are generally aware of what they want and are not willing to bear unnecessary risk. The customers need to trust that the designer is sufficiently good and competent that it is worthwhile to work with that person. This is naturally harder if the designer is young and as yet has no products on the market. Then, the client must weigh the involved risks and benefits. Larger design agencies may have insurance that cover design-associated failures, but, according to design expert De1, clients typically carry product and design-associated responsibilities themselves. Design expert De2 points out that in order to avoid risks, companies typically begin by implementing design at a fairly low development level. Eventually, the usage of design may increase step-by-step when clients feel that they can control the risk and the designer’s previous input is encouraging:

“At its extreme, design is a part of the core strategy in a company’s operation. In such a case, they have grown to use it and manage the design risk in a step–wise manner. This is what it is all about, and thus, it would probably be relatively difficult to take design to the strategy level in a company which has never used design, since they would not be ready for it. It is both about risk management and evolution of the achieved benefits from design.” (Ad2)

The number of companies that Finnish design entrepreneurs work frequently with is limited. Consequently, as design expert De2 explains, such companies have previous experience of purchasing and applying design. For example, producer Pr4 has a long track record of applying design. Today, the company claims it benefits from working closely with one fairly small design agency. Therefore, design entrepreneurs should do their homework and contact appropriate companies more purposefully. For instance, producer Pr1 and marketer Ma2 suggest that exhibitions are a good forum for both designers with their own products and design service providers to discuss and meet other parties. However, marketer Ma2 claims that they do not actively look for designers. According to her, especially foreign designers actively promote themselves and their ideas at international exhibitions:
“We establish relations during exhibitions, but we also know many designers from before. We have been in the business over twenty years, so of course we know pretty many, and many also contact us. Much more in that direction, rather than us contacting them, since in a small country like this you become known quickly.” (Ma2)

Nevertheless, foreign design entrepreneurs seem to face their own kinds of challenges. For example, producer Pr3 has occasionally worked with foreign industrial designers, but experience that for the advancement of the process, it is important that the designer is located here when things happen. Producer Pr1 supports this view by stating that it can be easier for their personnel to work together with a domestic designer and it is often financially cheaper to operate closer. In addition, building long-lasting relationships with foreign designers may be more difficult due to the distance. Apart from that, he argues that it does not really matter if the designer is domestic or foreign, as long as the performance meets the necessary standards.

Moreover, when a design entrepreneur offers their services, they should ensure that creativity is visible in their previous references. The potential customer, supplier or collaborator must see that the designer represents creative potential. The presentation material should also be logical, because it shows that the designer is capable of thinking sensibly and developing projects. In addition, the sales speech should involve some kind of novelty. As suggested by design expert De1, the designer must be able to convince others of the involved benefits. At the very least, the designer should propose and strive to settle on a second meeting where they can present their initial ideas based on the previous meeting and material received from the company. According to producer Pr1, sometimes experience and previous references are a burden. This is especially the case when design entrepreneurs state artistic conditions which are not necessarily in line with the commercial goals of the project. Field-specific experts, including design entrepreneurs, often face challenges related to selling their own expertise and in convincing the counterpart of their significance.

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Nevertheless, sales work is the primary way for them to enter negotiations and sign contracts with, for instance, marketers, producers or financiers. As explained above, external actors contact only recognized design entrepreneurs directly and offer them contracts, others must promote themselves and compete openly for work opportunities. This further increases the emphasis on the capability to sell one’s own ideas and to describe clearly the detailed features and venture ideas related to their specific ideas. Today, sales work seems to be more important than before, and, as a result, design entrepreneurs must be acquainted with the customs and products of the particular firm they are trying to address. The ability to sell ideas is important as is the ability to describe clearly the detailed features and opportunities related to the specific ideas:

“To gain entrance, the idea must be of a high quality, divergent, different, and innovative and so on. Such ideas exist more among industrial designers, but also among graphic designers. We actually have two designers from the UK who approached us at an exhibition, they only had a picture, but the idea was so good that we went and visited them and signed a contract.” (Ma2)

However, there is no general tendency to tailor proposals for prospective clients. Instead, producer Pr4 suggests that design entrepreneurs frequently introduce insubstantial product or concept proposals which do not directly suit existing production technology or distribution networks. During the previous year (2006) only two design
entrepreneurs with tailored proposals approached producer P4 seriously enough. In line with this, design advisor Ad1 feels that instead of selling design via “cold calls” design entrepreneurs should strive to book meetings with their potential clients. Before entering these meetings, they need to study the company carefully and find sales arguments. During the meeting, the design entrepreneur should listen carefully to the customer’s needs, before putting forth proposals or specific sales arguments. Design adviser Ad1 emphasizes that the customer must get the feeling that the designer listens and offers services based on what they have understood before and during their discussion. Consequently, design expert De1 finds it potentially more fruitful to discuss and then address identified client needs rather than trying to sell design as a resource. However, design expert De2 claims that it remains typical to sell industrial design services mainly as subcontracting, which incorporates some negative aspects typical for such business relations. For instance, the service suppliers are normally in a weaker position and faced with issues such as ongoing effectuation and costs cuts, which is something that design expert De2 describes as quite mind-numbing for design entrepreneurs.

As a result, it is naturally much harder to sell design if companies do not understand its value. At least in Finland, there are production and marketing companies with only a vague understanding of what design is all about. Consequently, marketer Ma1 feels that they do not necessarily know what they should obtain and how they should behave when purchasing design. According to marketer Ma3, customer expectations build on their level of realism concerning the impact of design on their individual products, concepts, processes and overall value-chains. As an example, marketer Ma3 describes a fashion company which hired three recently-graduated designers. During the next few years they designed a collection of products which, however, was not approved by the distributors. Consequently, the products did not sell without a distribution channel and the company quit the product line. Even now, after many years the company has not hired new designers. On the other hand, marketer Ma4 has encountered some disappointments from working with foreign product designers:

“We appointed a famous foreign designer and started the development process, but we were a little bit disappointed at the end, when the same person had designed such better products in the past.” (Ma4)

Commonly, external actors value design entrepreneurs who are able to stick to agreed schedules and who are capable of co-operating in product development projects. In addition, they desire that designers are flexible and dynamic experts to work with. Therefore, it is important that design entrepreneurs truly listen and grasp what the other party is saying:

“My opinion is that in all good product development processes designers must be flexible, because they do not have knowledge of all the different sub-areas. If the designers stick stubbornly to their own will, then it probably will not become a good commercial product.” (Ad1)

Similarly, it is crucial for design entrepreneurs to receive sufficient relevant information from their clients. According to marketer Ma1 and marketer Ma3, design entrepreneurs need to receive an extensive briefing and become acquainted with the project and their role in it. On the other hand, the purchasing party may feel that design entrepreneurs are
experts in their own right. Thus, they are not willing to guide them too strictly, since they assume that it may lessen their motivation and creativity:

“I feel that designers are proud of their accomplishments, and they see the design as their own. It is the creation of their hands, and when they design a continuance of the original product design they want the same line to be visible.” (Ma5)

Furthermore, talented design entrepreneurs possess a sense for gaining relevant information from customers and their intended products. Therefore, it is particularly important for them to listen carefully and even hear more than the customer is actually saying. Design expert De1 feels that industrial designers are generally eager to discuss things, and they strive to be receptive and socially responsive. However, design advisor Ad1 admits that they sometimes forget to listen to customer values and attitudes. Instead, they are, according to producer Pr3, more interested in the product features and the final product appearance. This seems to apply especially to designers with their own product, who may prioritize technological features when they should convince others of the commercial potential. Consequently, flexibility is an important feature in order to make commercial products.

6.3.2. Negotiating and signing contracts with design entrepreneurs

According to design expert De1, customers, suppliers and collaborators may bring into the negotiations employees from production, marketing and product development, and even the general manager, depending on the company type and size. Key account managers that are responsible for the strategy of a certain product category may be the negotiator, and in a few cases, the counterpart may be an in-house designer. At best, negotiations between design entrepreneurs and other external actors are fair-minded and built on mutual respect. However, this is not always the case, as suggested by design expert De2:

“I do not believe that the end result is very good, for example, in department stores where a professional purchaser is typically used. It is a very cold, rough and hectic schedule. In a sense, they constantly throw away venture ideas. The same occurs if the designers are particularly self-oriented. Such behaviour is not constructive, and potentially causes them to lose good opportunities to operate. There must be humbleness on both sides.” (Ad1)

There are no standards for design-related negotiations, which creates an indistinct situation within the field. Therefore, the design entrepreneurs’ reputation and negotiation skills are some of the few elements that enable them to receive assignments and maintain an acceptable price level. However, design is not something that companies are willing to pay significantly for initially. As suggested by design expert De2, there will always be someone who may well sell cheaper, and prices are pushed down due to fierce competition. In particular, inexperienced design entrepreneurs may have a weaker negotiating position with their counterparts. Thus, they are not necessarily in an equal negotiation position with their acquaintances. Nevertheless, design adviser Ad1 suggests that most young design entrepreneurs have at least some proof of their creativity and skills that they can refer to, since they have references from participating in various company projects during their studies. Designers with their own product normally meet up with professional purchasers when approaching potential
clients, suppliers or collaborative parties. Similarly, design expert De2 states that service providers are typically subcontractors, which may put them in a weaker position and involve ongoing effectuation and cost cuts. This setting often weakens their bargaining power. Therefore, design expert De1 advises design entrepreneurs to be clearly conscious of the bargaining situation and aware of their competences and limitations. Similarly, design advisor Ad2 has noticed that in a country like Finland, and perhaps internationally, too, design entrepreneurs are clearly not in an equal position. The distributors are either so large, or the distribution channels are so diverse that it is impossible to negotiate on equal terms:

“Some distributors are gatekeepers, who govern if you will be allowed access to the markets at all. This is concretely recognizable for specific kind of products, so I think for instance that it is hard to get access to a large chains’ distribution channel if you are a small actor. The distributors’ feel it is a large risk, and they have their own clear vision of the customer segment and their behaviour. Consequently, they are not interested in whether the design product is particularly good, instead they emphasize that it must sell enough per square metre of the sales space that they have reserved for it. It does not matter whether it is the best design if it does not sell.” (Ad2)

Design advisor Ad1 claims that companies tend to pay less for design than advertising services or business consulting. Therefore, marketer Ma3 feels that the starting point can be quite unfair. Especially if the design entrepreneur has weak social skills and ability to make presentations, then the end result is also probably quite bad from their perspective. In contrast, marketer Ma1 feels that companies may be relatively humble when they approach design entrepreneurs. Consequently, some design entrepreneurs hire design managers to assist in negotiations, for instance, with producers and marketers. For example, marketer Ma1 and Ma3 assist design entrepreneurs in negotiations with, for example, producers and distributors. Marketer Ma2 has experience of negotiating with assisted design entrepreneurs, and argues that the negotiations do not become any easier when assisting negotiators are brought along. Nevertheless, the language in negotiations between client companies and design managers is potentially straighter. Similarly, marketer Ma1 finds that in direct negotiations with design entrepreneurs, the client negotiators tend to be more cautious. They do not necessarily feel comfortable with discussing business issues since they are afraid to hurt the designers’ feelings. Simultaneously, designers find the contract and money issues challenging, so they are happy to let marketer Ma1 take care of them:

“Designers do not like to talk about business-related issues because they somehow feel that they are being cheated, or that they have a too-personal relationship to what they are talking about, which is their work.” (Ma1)

The contract basis between design entrepreneurs and other external actors naturally varies considerably. Generally, early negotiations take place in a contract-free period, and it relies mostly on an unstructured conversation. In that sense, there is seldom a formal letter of intention before parties sign a formal contract. According to design advisor Ad1, the contract is typically a co-operation contract which states the parties, obtained object(s), scope of the contract and conditions of payment. Design expert De1 regards it as important for design entrepreneurs to obtain at least a preliminary skeleton agreement before presenting their own ideas or working with any assignment. The agreement should potentially involve a non-disclosure agreement, issues related to the schedule and the responsibilities of involved parties. In addition, it is advisable to sign a
preliminary royalty agreement at the beginning, in case there are intentions to implement such a payment scheme. More specifically, design advisor A1 feels that normally a more formal contract regarding design services is signed after the company has decided to purchase the service. It is not uncommon that the parties have agreed to start by building a prototype based on the product specifications in the contract:

“The producer then makes a prototype version, and then their quality is checked. At that stage, money is not necessarily transferred. It is also in the producers’ interest to show that they can produce this kind of a product. The contract is signed first after seeing that product specifications are in place and that the co-operation will really work.” (Ad1)

Moreover, design expert De1 recommends that contracts should also include some level of flexibility regarding potential royalty schemes. For instance, it can be problematic if the contract addresses considerably smaller sales than is eventually the outcome. In such a case, the producer might need to invest considerably in the production, but the design entrepreneur would still receive the same royalty percentage. Instead, fees and obligations should fluctuate according to sales volumes. Some companies see it as unacceptable that a design entrepreneur who works with them should also work for their direct competitors. In contrast, marketer Ma2 does not see it as too problematic, as long as the designed products do not resemble each other. On the other hand, designers with their own products often sign delivery contracts with their suppliers. They also state the product specifications and volumes. In contrast, design advisor Ad2 is concerned because design entrepreneurs often have loose contracts or no contracts at all with their distributors. Moreover, the contract between design management agencies and design entrepreneurs often builds on a rather broad co-operation agreement. According to marketer Ma1, it states secrecy issues, content of services and financial payments:

“I have a co-operation agreement with the design entrepreneurs, which among other things, includes a short lay off time. However, in this profession it is impossible to continue a relationship, if there is a dispute situation.” (Ma1)

6.3.3. Intellectual property rights

Design entrepreneurs and external actors do not normally rely on intellectual property rights, since they cannot afford filing for them and/or they are not confident that they will receive a return from investing in them. In principle, a designer has personal objectivity (i.e. personal mental ownership) regarding their design. If a design entrepreneur decides to co-operate with another party concerning the production and/or marketing of their design, then the involved parties are bound to negotiate regarding product or service-related rights. For example, producers and/or marketers commonly need to invest both time and other resources to make the initial idea producible. Consequently, they might require a larger stake of the product rights, but leave the design entrepreneur with the design rights. According to design advisor Ad2, the role of IPR will increase in the future when different trade parties start to do business with IPR-rights associated with products and their design. The future challenge will be the rapid change of international IPR-legislation, which makes it harder especially for smaller parties to stay updated. On the other hand, there are some expert organizations in Finland that are specialized especially in international IPR-legislation. According to
him, some of the most interesting business openings associated with design is associated with immaterial products.

However, design advisor Ad1 warns that filing for intellectual property rights can be both expensive and time consuming. Therefore, the underlying business logic should ensure repayment of the investment, and such investments should be carefully considered case by case. Similarly, design expert De1 feels that in the end relatively few companies apply for patents, since it is both time-consuming and expensive. Instead, he suggests that companies invest to a larger extent in marketing, communication and brand building. For instance, producer Pr3 claims that they would file for patents only if they were to come across a true break-through innovation. However, Pr3 admits that recently they have not filed for IPRs, but in the company’s history this has been more common. Nevertheless, some of the design entrepreneurs that, for instance, marketer Ma2 works with have domestic patents for their products. She assumes that some of the design entrepreneurs expect that they will invest in this and expand the patent to cover also other markets. Similarly design expert De1 suggests that design entrepreneurs with regional patents should file for broader patents in collaboration with other actors:

“Applying for an international patent requires significant resources. On the other hand, it is possible to start from nearby, by filing for a patent in Finland and then showing it to a Finnish producer. Then they make a plan together regarding broader patent rights, which will be filed together. This can be agreed upon on a separate paper and the benefits are shared via, for instance, royalty fees.” (De1)

However, for marketer Ma2, this is an issue, since they only represent one piece of the product value-chain. Consequently, it remains unmotivated why the marketing party should alone carry the risk and costs associated with a patenting process when the designer, producer and distributors would all benefit from it without carrying the expenses. As stated by design expert De2, another problem related to patents is their typical relation to new technological breakthroughs. Today design is commonly associated with established technologies, which makes it challenging to file for patents associated with design-related innovations. Marketer Ma5 suggests that the significance of patents increases if new innovations or user functions are identified:

“For a company that develops entirely new technology, patents and trademarks are particularly important. Also, pattern rights are one form of protection, where the designer, of course, has a significant role. Currently, we have patents and trademarks in operation.” (Ma5)

Moreover, it is possible to defeat a pattern right with small changes as suggested by design expert De1 and marketer Ma5. Therefore, it makes sense when design advisor Ad1 suggests that the best pattern protection is between the designers ears, since being creative ensures that copiers are always a few steps behind. As explained by producer Pr4, it is also commonly feasible for imitators to improve the original, instead of making exact copies. Consequently, if a venture idea is truly innovative, then the respondents would recommend filing for patents. However, they all claim that pattern rights are generally not of any significance. Such immaterial protection is easy to obviate with minimal design modifications. In addition, it seems as if most respondents have stopped investing in IPR due to bad previous experiences. In addition, some of the marketing parties also have bad experiences from pattern protection, since such protection does not prevent imitation and legal modifications of the originals:
“We have had bad experiences from pattern protection, since it does not seem to be quite enough. For example, we have a product that we protected, and a competitor made a very similar one. When we examined whether our pattern rights were valid in this case, we found out that they were not. Small ‘nuance’ differences and they are not valid. It feels like a waste of money.” (Ma4)

6.4. PRODUCT DEVELOPMENT PROCESSES

This section puts forth the process of identifying and bringing emerging venture ideas to the market, as described by the interviewed external actors.

Companies generally have, at least to some extent, an authentic product development pattern, from idea generation to product launch. Therefore, design expert De1 feels that design entrepreneurs may see it as risky to start working for new client companies, since they are not necessarily familiar with their particular development processes. According to producer Pr3, for a non-professional, such processes may appear to follow a standard scheme: starting from initial demand identification, moving to product development and prototyping, and eventually, from there to production and distribution. Generally design entrepreneurs work, or prefer to work with product development, while others are responsible for production and promotion. Increasingly, service providers work for the duration of the client’s product development process as design consultants. For instance, smaller companies or inexperienced product developers may purchase expertise in project management from a service provider, as suggested by both design advisor Ad1 and Ad2. Marketer Ma1 would like to see the product development processes as a company’s entire value chain which does not start and finish anywhere explicit. However, mostly, design entrepreneurs work solely with developing products, while others take care of preceding demand identification and strategies, as well as production and promotion:

“It is still often on the baby steps level, so most commonly designers are contacted when giving the assignment, ‘Do this project,’ and that is it. Marketing and communication are arranged separately, so it is really only the product development within the entire value-chain.” (Ma1)

6.4.1. Sources of venture ideas

Commonly, there is a preceding period of venture idea search and identification before product development commences. Design expert De1 and marketer Ma1 suppose that in this preceding phase, product and business-related strategies are normally straightened out, either consciously or unconsciously. In order to capture ideas, design advisor Ad2 argues that design entrepreneurs should be involved well before starting any specific product-development processes. However, frequently, companies find it somehow frightening and expensive to take a design entrepreneur as a strategic partner. Nevertheless, design advisor Ad2 suggests that it could be meaningful to grasp what kinds of design processes are needed to reach set goals and visions. Based on marketer Ma1’s experiences, if the designer contributes in the pre-development phase, it may potentially eliminate heavy investments associated with unprofitable product ideas. Consequently, product development is often preceded by some form of grey zone, where strategies are formed.
The typical way to capture new ideas is to discuss with **existing customers and distributors** regarding potential needs or problems that they have identified. For instance, *marketer Ma2* typically starts to look for new ideas when a client wishes to have something. In the same way, *marketer Ma5* always specifies customer needs before starting to define product features and so on. *Producer Pr1* also claims that ideas normally emerge from the market surface, a small indication is needed, and the company is able to consider potential actions to satisfy the demand:

> “Of course we strive to follow the impulses from the market, and in a sense we have already then completed one phase in our heads; in that sense it is easier to accept one’s own ideas. It is easier that way. If a designer brings an idea, then we need to consider ‘Okay, how would the market react to it?’, so the thinking must be done retrospectively. However, the ideas as such do not differ too much in the product development process. These issues are fairly quickly taken care of.” (Pr1)

According to *producer Pr3*, their ideas frequently emerge from an identified customer need, or there is an existing idea that someone wants to present to them. In both cases, the initial idea is assessed from a market perspective and based on its potential suitability for production. *Design advisor Ad2* believes that the distribution channel may provide the producer or the design entrepreneur with significant information to be utilized in product development. For instance, the salesmen of *marketer Ma5* and the distributors of *producer Pr1* typically know what is currently interesting on the market and what kind of features a product should have. However, *producer Pr4* argues that their distribution channels do not provide too much demand-based information, since they are responsible and not willing to make potentially empty demand promises. Instead, they actively examine the markets and rely on creative working methods to come up with new ideas:

> “We observe the markets and what is concretely sold in the shops. We conduct market studies, and when necessary even larger investigations. We analyse, evaluate ourselves, make conclusions based on our previous expertise, and we think, compose ideas and create our product assortment. Occasionally, we just sit down and brainstorm, it can just be like that. Sometimes, we notice that a certain kind of product is on sale everywhere, why do we not have a similar product in our collection? Creation does not have to happen in a vacuum, so that there is nothing similar in the world from before. It can, of course, be like that, but in reality we have noticed that these kinds of ideas do not actually emerge in Finland. Such may emerge in larger markets, such as the USA or Central-Europe and the Far East.” (Pr4)

The product development process of *producer Pr4* normally commences from an ongoing overarching development process which is operated by the marketing department. The overarching process is constantly processed in the background and strives to identify products that the company might need and would like to produce. The process is fed with impulses from the market, which indicates what the customers are saying. Similarly, *marketer Ma4* organizes an annual meeting with their importers at which they show new potential models:

> “With our importers, we have open discussions at which we consider what is good with the models, what is bad, whether something could be improved, put away, or developed further. This has been pretty fruitful, since then we get at least pressed out those models that we are about to start producing.” (Ma4)
Consequently, collaborative parties and potential clients typically conduct a large quantity of identification work themselves. Therefore, instead of requiring assistance related to identification, these actors commonly need support in turning initial findings into observable design. The interviewed producers and marketers do not rely extensively on design entrepreneurs as initial sources of venture ideas. For instance, Producer Pr4 argues that they have so many ideas that they do not generally consider external ideas. Nevertheless, marketer Ma2 describes designers as “antennae-people” who spontaneously sense upcoming trends. In that sense, their task is to bring relevant knowledge to marketing and product development. Designers with their own product and service providers, too, should examine the environment and observe potential sources of venture ideas. For instance, they may identify a need or notice that some existing product requires improvement. According to design expert De1, such ideas could derive from an interest in a specific raw material or production technique. Design advisor Ad2 emphasizes that service providers must possess the capability to identify design-related venture ideas in relation to applied technological solutions. Design advisor Ad1 suggests that the focus of designers with their own products is normally on designing simpler, easily administrative products, whereas service providers must be much more acquainted with their clients’ product features and technical solutions. The classic assumption within the field of industrial design is that design should be clean and emerge from nothingness. Design expert De2 explains that it is somehow not suitable that a designer collects material from existing products or technical solutions. Instead there is a general expectation in the market for newness:

“Design should somehow emerge from emptiness, so you cannot refer to some source as in science. Even if it were to exist somewhere in the background, it is never mentioned, and everything should derive from some kind of a vacuum. That never really happens, since you work based on your own experiences and from your own environment.” (De2)

Instead of creating something completely new, design may imitate previous creations, which are found on the market or in their own product collection. Design expert De2 argues that to create something new without traces of imitation maybe important in the design profession, but to work with company projects forces a designer to reconsider newness from a market perspective. Hence, too much newness is seldom commercially acceptable. According to design expert De1, to create something completely new is a large investment, and, as a result, many producers prefer to imitate instead. Consequently, the role of marketing is to communicate the “newness” associated with the product and its design. However, as pointed out by design expert De2, this kind of design activity may raise the hype, but does not contribute to radically new design. On the other hand, many market-orientated companies are mainly interested in minimizing the risks associated with product development and production, which makes imitation a safer and easier option. For instance, producer Pr4 refers to the need for a replacement product if the production mould is broken, or the old design is somehow outdated. In addition, producer Pr4 gives a practical example of internal product imitation and product development:

“It can be this practical, without any fine glamour. It is just that there is either a need or we identify that we have a good product, but the tool is finished and we must produce a new one. Then the window is always open: should we build a new replica of the old mould and continue as before? Or take the middle way, where we create a new design for an old product.” (Pr4)
In line with this, according to design expert De1, identification is a work-related task, and new product-related ideas seldom emerge from total emptiness. Naturally, people have different ways to work, some sit and think longer than others, whereas some start immediately to draw and develop their ideas on paper, and sometimes initial ideas turn out to be clearer in the morning than they were the night before. In addition, many ideas emerge from mistakes in product development or production. As an example, design expert De1 refers to a famous textile pattern, which was discovered when the colouring machine was broken. He encourages designers with their own product in particular to examine the environment and observe potential opportunities. Similarly, design expert De2 explains that the source of ideas is not always self-evident:

“The start of product development processes emerges from somewhere in the organization, and pretty much without a systematic process. These kinds of technological companies have a practice of paying their employees compensation for innovations and patents. Then, of course, many quietly develop their ideas in small groups, and they bring it forth when they are sure that it is a patentable solution. However, this kind of practice is changing, and companies strive instead to develop process platforms, which aim at developing new concepts.” (De2)

In addition, design expert De2 suggests that it is possible that larger domestic companies either apply more directed design-related subcontracting, and occasionally they also purchase less goal-orientated design. This kind of ‘idea fishing’ also involves collaboration with universities at an international level, which in turn aims at discovering what design students are thinking. However, the idea contributors are seldom those that develop the initial ideas further, since the large companies primarily make contracts with larger and established design agencies.

As pointed out by marketer Ma4, these days, producers often make similar products to their competitors. He observes that the product lifespan is shorter and the imitation of successful products occurs earlier than before. Nevertheless, e.g. producer Pr1 would like to distinguish their products from existing products to awaken interest on the market. Some companies are rather innovative and let, for instance, their consumers tailor their products as suggested by design expert De2. In this specific example, those ideas that meet the criteria will receive a production and distribution acceptance, and eventually the original initiators are compensated accordingly.

6.4.2. Product development

Product development processes usually start from an identified demand, or at its extreme from pure artistic idea creation. Design expert De1 underlines the importance in commercial processes to articulate what is aimed for, what raw-materials are smart to use, or what the gap is in the market that is being addressed. In addition, design advisor Ad1 emphasizes consideration of the particular segment in which the consumers and purchasers actually are, as well as the influence of the surrounding environment on their behaviour. According to design advisors Ad1 and Ad2, product development proceeds at its best in close interaction between the producer, marketer and the design entrepreneur. These parties need the skill to listen and pay respect to each other’s professional competences. Following this, marketer Ma5 suggests that design is one important feature of a product, and that designers should become involved in the process when strategies and potential technical prototypes are considered. Design expert De1 feels
that co-operation should be ongoing and that the marketing party, too, should be more intensely involved in the development process. Traditionally, it is the designer who has the weakest role in the product development process. For instance, the majority of product development processes undergo moments of crisis. According to design advisor Ad2, these situations are typically solved by building some safety measures into the process, which implies that the weakest party often needs to give in. For some reason, product developers responsible for technology and sales are commonly in a stronger position, than those responsible for developing the shape and associated usability features.

“The other parties may maintain a distance from the design-related decision-makers, since they consider them subcontractors. Then, of course the process immediately becomes weaker, because it is set out in a specific direction, and the role of the designer and design is weakened.” (Ad2)

Design expert De1 talks more about designers as co-operating partners, instead of being somehow outsiders associated with the product development process. Designers are in daily contact with other involved parties, and, for example, it is possible to share 3D models electronically in a matter of seconds. This in turn allows for great amounts of dynamism and efficiency in taking the projects further. However, the means for fluent communication are made more difficult, since it might be rather difficult for project developers to discuss shape-related product features. According to the experiences of design expert De2, this is especially the case if they are not acquainted with design. Similarly, designers might encounter challenges in understanding technological, production or marketing-related features. In that sense, design expert De2 suggests that product development processes may become challenging if participants do not use the same vocabulary and attributes when developing the same product.

“Of course, it is difficult for designers to build the bridge, since they also have a subjective view of what an attribute represents in their own design. In order to get over this, I currently find that a long relationship is the only solution. However, establishing long relationships in the present hectic working cycle is quite challenging.” (De2)

Typically, the initiating party is also the co-ordinator of the development process. In general, design expert De1 feels that frequently the involved parties have similar goals related to product development. All parties mainly want to support the success of the overall process by conducting their own task as well as possible. Consequently, good co-operation ensures that all parties, both individually and on the aggregate level, are able to perform well. In particular, inexperienced designers may strive to ensure quality by keeping all the strings in their own hands. Design advisor Ad2 assumes that experienced designers are potentially better capable of reflecting their ideas with producers and distributors. According to him, it can potentially be quite hazardous to let design service providers express their creativity without a given framework. Instead, the designer should be considered a member of the product development team.

Not only design service providers, but also designers with their own product must be able to acquire complimentary resources from other involved parties. This is necessary since it is almost impossible to purchase such commitment associated with new product development. However, these product designers typically stumble in product development, since they are either unwilling or incapable of letting others in on their
ideas. Marketer Ma1 suggests that many times the strategy to design something that reflects one’s own personality and beliefs may flourish, but it requires a collaborative and commercial way of thinking to develop financially successful products. Consequently, the person who co-ordinates a product development process needs to select appropriate actors to join the project, and coordinate communication between these parties. This is in line with the basic argument of marketer Ma2, who claims that they always want to co-ordinate the process and add the product outcome to their collection. However, in the case of more complex product related ideas, the development process must involve more interaction between representatives of all parties. Similarly, marketer Ma4 claims that their external designers and their subcontractors commonly do not interact directly. Even if meetings are organized within some development projects where these parties are able to meet and discuss.

On the other hand, marketer Ma5 suggests that interaction between the designer and the production is to some extent necessary, since it ensures that the outcome is producible. Design is considered to be an important feature of their product, and, as a result, designers become involved in the process immediately after the first technical prototypes are finished. However, marketer Ma5 claims that there is no need to be in an ongoing relation with designers, since design is conducted on project basis and not ongoing. If the product design is modified, it immediately inquires large investments in new production tools, which is not feasible business-wise. Producer Pr3 values interaction and maintenance of an active relationship between necessary parties as important for developing feasible products. Depending on the case, design entrepreneurs commonly co-operate with the head of product development, the technical specialists who makes the technical drawings, and the carpenter who builds the prototypes. It is meaningful to recall that the number and extensiveness of simultaneous product development processes varies greatly among designers, producers and marketers. For instance, producer Pr3 claims that the number of such processes in the company he represents varies from year to year. There might be as many as ten simultaneous processes, or perhaps only one. On average, 90% of the developed products end up on the market, due to the company’s ground-work effort before starting new processes:

“Of course, it is always an investment and it always costs…or let’s say that it is case by case. The development may cost tens of thousands of euros, depending a little bit on what is done. Prototyping is also a process, but it is often quite cheap and we can build simpler things for certain models. We may also need to process more some specific model, and then model creation is not so cheap any longer.” (Pr3)

Producer Pr4 suggests that, more recently, 3D printing technology has made it easier for involved parties to discuss and reflect over real size models and their forms. This has changed product development considerably, since it allows challenging projects that are increasingly design driven. Seeing the product on the table in its real size and form makes product development considerably easier for all involved parties. Similarly, producer Pr1 explains that their designers draw or build several models based on shapes that they have created. They also consider materials and dimensions, and, based on these, the in-house product development continues to transform the designers’ visions into physical products. Consequently, the role of design entrepreneurs is to draw and create shapes or build prototypes. In addition, they need to consider both potential materials and feasible dimensions, without forgetting about production and distribution
principles. Thereafter, the production technicians continue to transform the designer’s visions into physical product models. According to producer Pr4, the design entrepreneurs depart from product development after this phase. However, as producer Pr3 suggests, design entrepreneurs are often involved throughout the process, until the product is ready for production and perhaps even distribution.

Product development may occur also at a concept level, by creating product families rather than individual products. Producers and marketers tend to be fond of concept design instead of single items, since concepts tend to have a better customer value and extended demand. However, some design entrepreneurs focus on the details of one product, instead of developing a product family at the conceptual level. Concept design is a continuum, where new products are introduced, either at once or often in sequences during a period of time. According to producer Pr4, their product development normally commences from a concept design, which is built around a specific idea. However, it is important to make at least the initial drawings immediately for all potential products, since it might be less inspiring for a designer to return to a concept after some years. In addition, it is important to somehow ensure that the chosen concept is good enough to continue for many years, even if some individual products within it were to die. Consequently, producer Pr4 divides design into three different phases, namely: pre-design, design and marketing. Of these, pre-design refers to the invention of a new concept. The main products are finalized and produced immediately, but then they leave space for some additional potential products. They give their designers fairly free hands, by pointing out the category into which the developed product should fit. Product development tends to drag on, without proper milestones and deadlines. Consequently, design entrepreneurs are normally obliged to show commitment and discipline while working with client-driven assignments. For instance, producer Pr1 has learned not to give any extra time, since his experience is that designers will take all the time that is given to them to complete the project. In that sense, design expert De1 also assumes that detailed time schedules makes it easier for all parties to proceed with their own tasks, and fit their other appointments and duties accordingly. However, as producer Pr2 states, product development processes differ both in required time and other resources:

“It varies considerably; some products are ready almost immediately, and others require many prototypes. For instance, regarding some of my own products, we made over 20 prototypes before the final product, so it varies a lot.” (Pr2)

In any case, design expert De1 sees it as the design entrepreneurs’ responsibility to ensure the transformation of the original idea into the final product or concept. For instance, producer Pr2 regards this step as one of the most crucial ones associated with product development:

“The most challenging phase in design is in a sense to transform the freshness into the final product. After the designer has drawn a beautiful drawing of a chair, then it is transformed into a product. Immediately, when changing the ratio to one-to-one, the features of the drawing change a lot. After that, there is a need to consider the comfort of sitting, so that it functions, the influence of different materials on the structure and appearance. At that stage, many really nice and fine drawings are crossed out, and it does not become a product.” (Pr2)
Consequently, it is evident that regular interaction between the involved parties will bring both dynamism and efficiency to the process, as long as all parties are acquainted with the product-related features and are aiming at the same goals. However, design expert De2 feels that this is not always the case, since others may not understand design aspects, or the design entrepreneur may have challenges in grasping technological, production or marketing-related features.

6.4.3. Production

Product development and design are central elements for production feasibility. As pointed out by producer Pr4, these must be optimized to the specific production system, in order to ensure that the particular product is able to be produced with the available technology. In addition, the production process should result in products that are both technologically efficient and cost-effective to produce. A product development process may evolve in many different ways. Occasionally, products are ready for production immediately after the design entrepreneur introduces them. However, normally they require adjustments before it is financially reasonable to produce them, as suggested by design advisor Ad1. Similarly, marketer Ma5 explains that they strive in co-operation with their subcontractors to consider production-related aspects throughout the process. This practice is believed to minimize the emergence of any surprises, and it also provides an initial cost estimation regarding planned production.

In the past, designers developed new means of production with the producers, but today such collaboration is less frequent. Design expert De2 argues that without proper collaboration between designers and the production, there is no possibility of developing the existing production technology. These days, technological development is primarily in the hands of producers, but some producers continue to co-operate with design entrepreneurs with the competence to influence the production technology. Some of them are professional handicraft workers who have the competence to make products themselves, whereas others are solely drawers. Producer Pr3 admits that for them as a producer, it is generally easier to discuss with handicraft workers, since they understand production technology. Consequently, the role of the producers is important because they set the frame for what is possible to manufacture and what is not. Similarly, marketer Ma3 states that the flow of the production process is important for the overall cost estimation. Specific shapes or parts of the product might make manufacturing more difficult and increase the overall costs. Design advisor Ad1 suggests that this may be an outcome of design entrepreneurs’ weak knowledge of fabricating the given raw material. If design entrepreneurs develop products alone and are able to bring them into production, then design expert De2 claims that the production technology is often well-known and uncomplicated. Typically there is a need to fit designer-driven ideas to existing techniques and production systems:

“Very seldom are their ideas ready for production. It always requires technical planning and drawing, and then the construction of a prototype.” (Pr3)

“Some bring a finished drawing and ask: ‘What do you think of this, do you think this is a good design and structure?’ Another show raw prints and says ‘I think this could turn out to be something, would you be interested in taking it further?’ Then we might work onwards from there together.” (Pr2)
The picture of production is potentially made more complicated when considering the network of producers that are somehow involved in the chain of producing specific products, as suggested by producer Pr2. Both marketers and producers tend to use external suppliers, at least to some extent. Distributors are generally not interested in the applied technologies or actual producers. Instead, they expect to receive products that are in harmony with their own customers’ demand. In addition, producer Pr4 explains that distributors are interested in how effectively products arrive on their shelves, and most importantly, how much they will sell to the customers. For instance, some producers own everything from production tools, raw materials and packaging, but purchase production and machine-time from their subcontractors (e.g. Pr4). The production tools are generally expensive, and in some cases, they are the core of production investments (e.g. Pr4). For instance, producer Pr4 explains that in their line of business the production moulds are the core investments and they are expensive. Consequently, their business logic is production based on high volumes and effective logistics, where design related costs per item are marginal.

Although producer Pr4 uses external producers to some extent, they always own the production tools. Typically, they make a deal with the subcontractor that producer Pr4 deliver everything other than the machinery and workforce. Similarly, marketer Ma5 has invested in production tools that are used by their subcontractors to produce their components. Marketer Ma4 or Ma5 produce all of their components at a subcontractor’s. Potential investments in production require volume production and effective logistics. The end-price and production processes must match, since it is unlikely that costs will decrease significantly after production reaches certain volumes. For instance, marketer Ma2 feels that designing products with fairly small budgets, as in their case it requires that the aim is volume production right from the start:

“We have our own vision. We have started from believing so much in the ideas ourselves. So we have even corrected the price from our own margins, but that has collided pretty often.” (Ma2)

Generally, it appears somewhat challenging to decide upon appropriate production volumes for new products. In some cases, it is possible to steer one’s own production quickly according to demand, but externalized production is more difficult to steer in the short term. For instance, producer Pr3 feels it has been challenging to decide upon an appropriate production volume for a new product. They can steer their production quickly according to the demand. In addition, producers Pr1 and Pr3 as well as Marketers Ma1 and Ma4 sell a considerable number of products in larger quantities into various projects, which diminishes risks, since they commonly receive partial payments upfront. In that sense, some producers operate with specific kind of products more on a customer delivery basis, which is possible due to their flexible warehousing and production systems (e.g. Pr1, Pr4). Others produce larger volumes of specific products and allow their customers to make final payments and warehouse calls during an agreed period of time (e.g. Pr1, Pr2, and Pr3). Such agreements are normally a result of long-term co-operation. It is ideal for all parties, since the customer is committed to purchase all of the products within a certain time, but they do not need to store them or pay for them all at once. For instance, one of the producers to marketer Ma2 produces specific products in larger volumes and allows demand-based orders from their warehouse and payment upon delivery. This agreement is a result of long-term collaboration. Producer
Pr3 works in this fashion in their subcontracting relations. Regarding their own product assortment, they are particularly cautious about upfront production, since it always involves risks concerning matching the stock with short-term demand.

Ultimately, customers pay for value, and value creation can also focus on the design of everyday commodities. In Finland, design is often associated with expensive and high-end products. However, design adviser Ad2 argues that design can assist in raising the refinement level of the industry in Finland. On the other hand, marketer Ma2 emphasizes that low production costs, which are often associated with Asia, are not the only significant issue associated with selecting an appropriate producer. Supporting this view, producer Pr4 suggests that, on the whole, their production could not be done more cheaply in a low-cost country. Many have suggested to producer Pr4 warehousing in combination with production in Asia. Instead, they have successfully chosen to work flexibly with production, by producing larger parts of bigger customer orders on a delivery basis.

6.4.4. Marketing and distribution

Overall, promotion is vital, since it gives a product features which will enhance its sales. Design expert De1 assumes that the price is often not that vital, as long as the product otherwise fulfills the consumer desires. The general expectation is that the involvement of design will increase product sales and decrease associated production, logistics and promotion costs. For instance, sales increase when products are more desirable and the related communication is more striking. Costs decrease when finding new ways to augment the product characteristics. For instance, design expert De2 assesses the role of design entrepreneurs from a value creation perspective. She explains that on the basic level design is about face-lifting, which may offer cost savings, improve communications features and logistics. On the second level, design is about creating improved and innovative solutions, which respond better to the clients’ or consumers’ needs, and on the third level, design administers the identification of new business solutions. Marketer Ma1 underlines that usability features and production efficiency is generally regarded as important by all parties. Accordingly, the designer does not just work on creating something, but also increases the know-how associated with product development by capturing tacit knowledge from the process. Consequently, the argument is that design entrepreneurs contribute by creating value to the product development process.

“At best, designers are able to renew the entire business and even the original business idea. They turn the competence in a sense to something new, they design the core competence into something very new – that is design at its best. In one way, they work as some kind of innovators on behalf of the companies. I think that the designers’ task is to press on and awaken the crowd to what their competences are, and how they [i.e. the company] have become stuck in the present situation.” (Ad1)

Companies generally have certain annual marketing budgets which also may state investments in new product launches. In addition, companies increasingly operate together with external advertising agencies who build the visual appearance and marketing campaigns on their behalf. In that sense, design expert De2 feels that company-specific designers or external design entrepreneurs have rather limited
opportunities to influence product related marketing. Generally speaking, marketing and sales are difficult for design entrepreneurs, since they seem to feel that they primarily promote design via self-promotion. Marketer Ma1 and Ma3 has a somewhat similar view and explains that consumer products in particular are often personified with the designers. In addition, marketer Ma1 points out that design entrepreneurs are commonly not the ones with the most expertise related to marketing. The offer must be on the right level, of suitable quality and the delivery assurance is also of importance. On the other hand, marketer Ma3 believes that it is easier to stimulate sales if the design entrepreneur is interesting as an individual, rather than that he/she creates interesting products. In line with this, design adviser Ad2 has noticed that currently, there is a tendency towards numbness among consumers on the international level regarding the strong brand fixation. Perhaps the formalized brand steering turns off some consumers and increase their likeliness to abandon large producers:

“In a sense it is partly an illusion, but currently consumers feel that they can build in some sense more unique product environments for themselves and be more individualistic. This is by no means a bad thing, rather the opposite. When large producers face this departing consumer movement, they are faced with severe challenges and are forced to change their way of acting, or they will die out. Anyway, there will emerge new space for the most growth-capable companies, which then will move ahead and the cycle continues.” (Ad2)

According to design advisor Ad2, this in turn could offer interesting venture ideas for design entrepreneurs, who can potentially feed middle sized and larger companies with fresh ideas, products and services. On the other hand, Finnish designers with their own products are increasingly establishing and promoting their own brands and trademarks. Consequently, marketer Ma1 claims that it is essential for these designers to have a clear brand or trademark, which functions as an umbrella for their product collection. Design advisor Ad2 suggests that the ongoing development of the Internet and other media will potentially further enhance the communications of design entrepreneurs. For instance, brand building may commence even before being in touch with the distribution channel. In addition, it allows the promotion of one’s own brands in a more cost-effective way. He has actually noticed a change within the design sector related to branding and trademarks as Finnish design entrepreneurs increasingly establish and promote their own brands. Moreover, marketer Ma4 finds that the significance of international distributors increases in cases where the product is somehow genuine or special because the domestic market is generally too small for such products. The distribution channel is important, and design entrepreneurs need to consider suitability and appropriateness when selecting partners for collaboration and distribution. Therefore, it is advisable for them to discuss with as many potential parties as possible, since it is particularly important that they have the same vision regarding promotion, target customers and segmentation. However, as explained by design advisor Ad1, these parties also have a mind of their own, and larger distributors in particular are often rather purposeful. On the other hand, smaller design stores purchase rather small volumes, which make it hard to reach desirable sales volumes.

Simultaneously, larger distributors, such as department stores and wholesalers, are trying to cut down the number of suppliers of consumer products. Therefore, it is challenging for new suppliers with few brands or products to become suppliers. Instead, there is a need to co-operate with existing suppliers, who may provide access for other companies’ products, too. Producer Pr4 gives an example of a large retail chain that has
cut their suppliers from 2500 to 1000 in three years. In addition, larger distributors in particular require long-term planning and assurance – in some cases, almost one year ahead of delivery. According to marketer Ma2, such pre-orders involve evident risks, since they may never come to pass. Generally, it seems as if the competition for consumer products is harsher than the competition for business related project sales. They work both with consumer goods and project-based distributors. Regarding consumer goods, she states that there are some differences among distributors of consumer goods; for example, in Finland they work with department store chains, and life-style and stationary chains. Abroad, they work in general more closely with specialist shops, but the distribution channels vary between different regions and countries. In particular, larger distributors of marketer Ma2 have longer planning processes. Some of the foreign distributors order products almost a year ahead, but on average they operate on six months’ notice. Pre-orders also involve some risks, since even if the distributors make the orders upfront, they may not be realized after all:

"It is important to discuss with the clients as early as possible, so that it is possible to consider logistics and the price structure right from the beginning. The product should fold really compactly, since if you ship one of them [unfolded] out to the wider world, the freight cost may be almost the same as for putting twenty foldable ones in one box.” (Ma2)

Moreover, industrial designers in general are trained to create new products and associated features and methods. However, from a commercialization perspective, this is sometimes problematic. On average, customers do not necessarily understand the value of selective products. For instance, producer Pr2 feels that add-ons to existing collections or imitations are easier to launch, since the design pattern is familiar among consumers from before. According to marketer Ma3, this could explain why the newness and novelty of a product may result in modest sales, especially at the beginning. During the first year on the market, sales may actually be rather discouraging, and it thus takes extra work to keep designers and distributors motivated. Marketer Ma1 believes in the strategy of designing something that reflects the designer’s own personality and something that he/she believes in. She has seen many successful examples where designers have started with doing something they themselves or their friends have first had a desire for. However, many design entrepreneurs lack a commercial way of thinking regarding their own products. On the other hand, marketer Ma4 suggests that it happens that companies strive to improve their image by introducing innovative product ideas. Similarly, marketer Ma1 feels the importance of openness among involved parties, since it potentially diminishes any conflict between creative and commercial goals:

“For instance, at the beginning of a project, the desire has been a commercial product. Suddenly, the wish is to exploit everything in the image. Consequently, the product is put into a more selective distribution, which is always a little bit against the designer’s wishes, who might want the product to reach the masses. Frequently, it is considered that designers do not want to address the masses, and that they want exclusive products, but very often it is the other way around. The company wants to have some exclusive products to lift their image.” (Ma1)

6.4.5. Outcomes

Product development and launching new products involves substantial risks. Marketer Ma2 believes that the reduction of these risks is possible, at least to some extent, by
working closely with the customers and the co-operating parties. Producer Pr2 suggests that sometimes there is a need to “re-develop” or disregard newly launched products, which results from inexperience in product development or from over optimism concerning production and sales volumes. For instance, frequently, the risk of considerable financial losses makes involved parties more cautious and willing to co-operate with a wider product development network. For instance, some years ago, producer Pr4 considered production of an external product idea which was a complete accessory for one of their own products. The idea was interesting, there were complete production moulds for it, and the inventor had pattern rights for the product. Consequently, the products sales diminished even before they actually started. According to producer Pr4, it was just an idea that the inventor wanted to carry out, but as with many ideas it lacked financial grounds. Typically, the argument is that design entrepreneurs generally do not completely understand the structure of the business or the means for production. For instance, design entrepreneurs may not be aware of how sales volumes turn out, nor are they necessarily in contact with the production or the distributors after product launches. For instance, marketer Ma1 suggests that it is mainly the product managers and those responsible for products and collections that follow sales volumes. They are also the ones who communicate directly with the distributors and their sales people.

Occasionally, product development processes result in unrealized ideas or ideas that drastically fail to meet the market expectations. These ideas may end up in the drawers of the design entrepreneurs and the companies driving the process. For instance, design expert De2 knows a designer who struggled for years before finding a partner for cooperation who introduced the designer to a cheaper production method. Suddenly, after years of struggling, the product turned out to be an international success with a good margin. Consequently, it makes sense when marketer Ma2 suggests that such ideas are not necessarily failures, since it may take many years of product development and production before all pieces fall into place. Producer Pr1 admits that their product development failure was due to their inexperience in product design processes: too much optimism and belief in hard work resulted in considerable financial losses. Since then, they have become more cautious in making decisions and they use a wider network to assess potential new ideas (e.g. distributors internationally). On the other hand, producer Pr4 has purchased product-related intellectual property rights. However, the outcomes were not all that encouraging, since a competitor simultaneously introduced a better product and had a stronger distribution network for that kind of product.

It can take years of struggling before design entrepreneurs find partners for co-operation or realistic production methods to carry on with the project. Producer Pr4 suggests that sometimes trustful relations may speed up the process and ensure the commitment to transform the idea into a distributable product. As an example, their design agency created their own modification of a product which they had originally designed for producer Pr4. The new product idea derives from the agency, and producer Pr4 produces it for them. Then a third company promotes the product, via other channels than normally used by producer Pr4. The three companies talk about co-branding: the design agency designs, producer Pr4 produces and the promotion company distribute:
“Everyone sells everyone’s; we decided that we won’t sell it, since it would not fit our distribution channels. [The Promoter] wants to distribute it and [the agency] is not able to sell it themselves, because they do not have any salesmen. We have agreed that this is a little bit of everyone’s product, depending on the viewpoint, no one claims it to be solely theirs.” (Pr4)

Consequently, producer Pr4 admits that they only considered this idea because it derived from their ‘in-house’ design agency. These kinds of ideas easily cause more work than profit, but he wanted to open the door in this particular case and drop all volume expectations. Similarly, when the project was blessed by him as the owner/manager, the organization was committed to making it a success. Instead of trying to lift their brand image, producer Pr4 wants use this project to show to their clientele that they are truly considering design-related issues. However, marketer Ma4 points out that there are a large number of past failures within the industry. Typically, such a product design has not fitted the overall product assortment of the co-operative companies:

“Plenty of these kinds of mistakes have been made, and then it is a surprise when the designer is famous and everything should be in place, but the model just does not sell. So in that sense, the company’s marketing is one part and the designer’s marketing another part, and the designer’s fame is something that will help in some sense.” (Ma4)

Moreover, to reduce business-related risks, all parties should check the basic business and credit information of their associates, and learn more about the specific companies in question and their business activities. A more frequent usage of contracts would reduce business risks for all parties. In particular, design entrepreneurs are not always aware of business-related risks. For example, they commonly do not check if their clients or cooperative parties are solvent or not, or if they run the risk of trespassing upon existing intellectual property rights (IPR). Design advisor Ad2 claims that until now there have not been any serious IPR cases, but this is bound to change if Finnish design becomes more visible at the international level. On the other hand, designers with their own products are sometimes faced with relatively small subcontractors who do not consider business-associated risks on their behalf either. According to design advisor Ad1, they may be as desperate for new work opportunities as the design entrepreneurs are. Therefore, these parties may form business relations without properly considering the risk of monetary losses. In contrast, design expert De2 feels that producers generally are more risk aversive than the design entrepreneurs:

“Designers probably do not consider commercial risks in any way, but then again I think that producers consider them carefully. For the latter, perhaps imitation is felt to be a more risk free option, rather than developing something of their own and new.” (De2)

Marketer Ma1 suggests that client companies should have integrated control mechanisms in their processes, and they should also brief the designer of their existence. Moreover, in order to reduce risks, some of the producers require partial payments upfront. One option for design entrepreneurs is to follow the example of marketer Ma2, who strives to minimize risks by working closely with their customers:

“Regarding commercial risks associated with accepting some collection, we start off with a pretty broad palette and conduct customer orientated product development. We frequently have negotiations with our clients, and we show them prototypes all the time. Therefore, when we have something in development, we ask for their opinion and revise the products in that direction. Occasionally, the entire idea comes from the client, and we just test the idea at
Traditionally, design service providers charge their clients by the hour, whereas designers with their own products rely more on royalty-based income schemes. Design entrepreneurs should carefully estimate their creative output and potential financial income in a given time frame. In that sense, design expert De1 suggests that customer-initiated biddings involve an evident risk for service providers, since it is possible for them to lose or win a bidding based on estimated hours and compensation levels. As pointed out by design advisor A1 and design expert De2, it can be difficult to estimate the workload in advance. Nonetheless, few customers are willing to sign contracts that would let design entrepreneurs work without a project plan, including a detailed cost estimation scheme and ordinary delivery terms. Actually, design expert De1 claims that in established and longer relationships, upfront time estimation becomes less important; instead design entrepreneurs are allowed to charge for the hours used afterwards, which is a sign of mutual trust. This kind of flexibility is important, since design is very difficult to estimate upfront based on time usage.

Similarly design expert De2 suggests that this kind of flexibility is important, since currently design service providers are treated as subcontractors, who are faced with high level of competition, cost reductions and a constant demand for effectiveness. Even worse, the designer is required to come up with a proposal, for example, based on a one-hour briefing given by the client company. However, the product development team is often called together at the same moment, which clearly suggests that there is no clear picture of where the product development track will eventually lead. Nonetheless, the design entrepreneur as a subcontractor is forced to come up with a detailed proposal which states hours and compensation levels. Instead, design expert De2 refers to the partnership policy of a Finnish-based engineering company who are committed to purchasing an agreed amount of services from selected design entrepreneurs (e.g. 60% of an agency’s overall work hours). This guarantees that there is no need to constantly negotiate regarding the work tasks. At the end of the year, the parties evaluate whether the total working hours are below or above the original estimation. In this fashion, external industrial designers are treated almost equally to internal designers. In the past, paying royalties was a common way to compensate design entrepreneurs for their work input, but marketer Ma1 experiences that a fixed compensation is these days increasingly common. Today, royalties are mainly associated with large-scale consumer production, as suggested by design advisor Ad1, design expert De2 and marketer Ma1. The argument for not having royalties is that producers and marketers are more solid than design entrepreneurs are, which makes it unfair to force designers to bear some of the financial risks. In general, companies with volume production reason in a similar fashion, but then there are also designers who are not willing to operate without royalties:

“Royalties are only beneficial in enormous mass production, but to attain and construct such is challenging. In general, if you consider furniture, it may have a three percent royalty compensation from the purchase price. Then the couch sells 200 pieces, so the royalty incomes are not that big. You can get good royalty compensations from products that are produced in the hundreds of thousands; even if the production cost is one Euro and you get the three percent.” (De2)
However, in a small country like Finland, it is only smart to operate with royalties if the design entrepreneur has some patents or other rights to the product, as pointed out by producer Pr4. According to design expert De2, the royalty percentage is not constant, but open for negotiation between the parties. For example, it may vary between 3-5% for mass products, and be as high as 20% for smaller series. Producer Pr1 feels that at least within the furniture industry, the royalties are rather similar when comparing domestic and foreign design entrepreneurs. Marketer Ma2 claims that they pay considerably good royalties to two of their design entrepreneurs, since they have done so much work on their products and distribution of them. They mainly work via royalty contracts since they do not currently have resources to pay off designers immediately. Their royalty percentage always falls in the range of 2-10%. For example marketer Ma4 and producer Pr1 basically operate based on royalty based contracts:

“We have royalty-based contracts with our designers, and in principle we feel that they are very fair in product sales. The designers receive incomes and it steers also their design process, so that they also take into consideration commercial aspects.” (Ma4)

“It is a design contract between the designer and the company which is built partially on a specific usage of time and partially on royalties from sold items. The demand for payment in advance tends to be too great in Finland. When working with foreign designers, we pay for finalized products and then royalties for generated sales, but abroad designers understand risk-taking much better. Why should someone who works with design and draws something without monetary expenses receive a payment from it? Abroad this is recognized better, but in Finland, designers’ start to calculate from the moment they start to think and draw something.” (Pr1)

On the general level, the margin spread between the associates is quite large. For instance, marketer Ma2 estimates that producers may receive a 30-40% margin on top of raw-material costs, and the marketer 20-50% on top of the production costs. In addition, the distributors require normally a commission, which is twice the stock price, excluding tax and transportation costs. Design entrepreneurs often have a hard time understanding why the royalty percentage is calculated from the retail price, when the final price is much higher. In addition, the terms of payment, especially with larger foreign distributors, can be quite unfavourable for the associates. For instance, in the worst case distributors require a payment time of 90 days (on average it is 30 days), but domestic distributors are often willing to accept 14 days according to marketer Ma2.

Overall, design advisor Ad1 feels that design entrepreneurs often start to consider commercial aspects too late in the process. This depends, of course, on the case, but, for instance, many designers with their own products are forced to consider commercial aspects first when they realize that the market price is too high. As a result, the decision must be made to either cut costs and/or their own margins. Costs may be reduced by redesigning the product and making its cost structure more sensible, which in turn allows price reductions without giving up their own margins. Accordingly, all too frequently, design entrepreneurs are prepared to give in on their own margins, without calculating how much more they in fact must produce and sell to reach the same end result. Consequently, it is best if commercial aspects and costs are considered throughout the entire process, starting from product development, through production and finally to promotion. In reality:

“They might have considered from an aesthetic viewpoint that it will sell because the design is so good. However, they do not consider the price. It is very seldom considered before colliding
with it. Designers often think, ‘I will push a little bit more’, without understanding how much more they need to push. Eventually, they realize that the working hours are not enough. Many think that the solution is longer working days, but it is not possible to make them endlessly longer. Commercialization is overall alien to them.” (Ad1)

Moreover, cost recognition and financial thinking can be quite undeveloped. For example, design entrepreneurs are not capable of setting themselves a price for their own work. In line with this, design advisor Ad1 refers to a designer with his own product who admitted that his company was almost faced with bankruptcy before he realized that there was a need to narrow the product selection and start considering where the money actually came from. Consequently, the entrepreneur reorganized the production chain, by focusing on planning and reorganizing it again. The increased production efficiency improved product quality and raised overall returns.

6.5. Decision-making and product development

It is sensible that product development and commercialization decisions are made in co-operation with product developers, producers and marketers. However, typically the marketer and/or producers make the strategic-level decisions without seeking advice from design entrepreneurs, or other involved product developers. These decisions result in some guidelines (restrictions) for the upcoming product development process. Eventually, the design entrepreneur should create something new within the given boundaries. Nevertheless, it would be useful for all parties to learn from previous projects and discuss broadly before stating strategies or investing in new technical or business solutions. In that sense, product development captures activities associated with entering a commercial environment, and the entry is built on underlying design, production technology and business models. Consequently, it is necessary to synthesize information and apply it in a creative manner to capture new venture ideas. According to design advisor Ad2:

“I think that the commercial competence and the design competence should be merged seamlessly together. Design enables good business, but business competence enables also creation of better design products.” (Ad2)

The framework for decision-making is rather obvious when product development aims at commercialising ideas. Nevertheless, within the given frames, design has an important role as a creative mind-opener. Design expert De1 feels that decision-making in relation to product development and commercialization should be conducted in co-operation with the design entrepreneur, marketing, product development and why not production, too? However, typically when, for example, design service providers enter their clients’ product development projects, someone has already made the important decision to start it. Perhaps 70-80% of strategy-related decisions are made before designers are asked to join the project. Such decisions are related to how the product range should look or what kind of factories the company should maintain. According to marketer Ma3, designers are asked to create something new based on these guidelines (restrictions). Producer Pr4 supports this view, and explains that they strive to benefit from exploiting something that has been learned previously before investing in bringing forth new technical or business solutions.
Product development is not only dependent upon decision-making within a product development team. In addition, the team or design entrepreneur needs to convince the customers’, suppliers’ or collaborators’ specific decision makers, since they will eventually influence the implementation of the outcome. Design expert De1 feels that companies often want to steer the product development process firmly. This is a pretty safe way to proceed, but it leaves only limited opportunities for creativity, and the creation and development of new ideas. Therefore, he encourages design entrepreneurs to demand more independence, which in turn may result in better solutions both in a business and a design sense. For instance, client companies often want to steer the product development process, by preparing either too strict or sometimes too vague product development briefs. On the other hand, vague briefs tell little of the actual customer expectations. For instance, design expert De2 has been asked as a designer to perform based on a very loose brief, which stated more or less: “People drink water, coffee and juice – make a drinking glass”. This however, revealed very little of what actually the customer was looking for. Then again:

“In some design-based service production, creativity cannot be afforded, because the brief is defined so precisely that you cannot do almost anything. That is perhaps the worst situation, in a sense, when the design purchaser makes creativity impossible via the brief. The clients have a desire for innovations, but their strict assignments rule them out.” (De2)

Marketer Ma1 assumes that many companies who work with design and product development would benefit from having an internal design manager. Nevertheless, fear remains one of the most limiting factors regarding creative decision making; especially in smaller companies where risk associated with product development and sincere innovation are proportionally larger. Design adviser Ad2 points out that as a decision maker you are forced to take risks and you know that the effects from your actions and decisions are ultimately your responsibility. Moreover, in the business context, a design innovation should also imply a business venture. Therefore, design entrepreneurs should be able to discuss their ideas with people who are responsible for business operations as well as production. Design advisor Ad2 suggests that together these parties examine the findings from a sales and marketing perspective, and capture what the innovation implies from a technology and design perspective. This kind of triangulation ensures that all parties reflect over each other’s situation, but there are also many bad examples where this has not been the case. For instance, the marketer might be too focused on finding solutions from the present, rather than looking strategically ahead.

The focus can also be on imitating existing competitors or re-inventing old product features rather than developing genuine new product collections, as pointed out by design expert De1. As we have seen, design entrepreneurs commonly have limited influence on strategic decisions related to production, marketing, and customer-driven product development. On the other hand, designers are able to influence decisions on the operative level more directly. For example, designers may influence the product features, how many pieces it contains, or what the production tools are. Furthermore, designers are often involved only in the product development phase, when they introduce options, justify them and potentially assist clients or partners to make decisions. Design advisor Ad1 suggests that typically discussions with the representatives of marketing and production cover newness value, market convenience and production costs. The designers have the expert role regarding design, and so they
should present their views and consider subsequent comments from both the marketing and production parties. Normally, it is the process initiator (producer, marketer or designer) who makes the final decisions regarding product design and associated issues. Consequently, design entrepreneurs may sometimes find that co-operation with marketing and production representatives is more about contracting and sharing of orders than a joint development environment:

“In that specific case, everyone was sticking to their own opinions, and not so that we would have tried to consider on the terms which would allow us to make the product better. This was quite an awkward experience.” (De2)

Nonetheless, it is important to discuss where and on whose terms products are developed: is it the designer or the company who should be the decision-maker and bless the design? Someone who is acquainted with the overall business ventures values should always make the final decisions regarding the product collection:

“In the past, decision-making was passed over to the designer because I did not have the courage to have an opinion regarding design, nor did I have enough knowledge of the market. The designer got all ideas approved as they wanted, and from those mistakes we have learnt a lot.” (Pr1)

In addition, marketer Ma2 admits that sometimes they are faced with design entrepreneurs who are not willing to change their design. This can be a challenging situation if the product idea belongs to the designer. Otherwise, depending on the product, they have several potential designers who can carry on with the product development. Nevertheless, they have a respect for designers and their pattern rights. On the other hand, Marketer Ma3 sees generally no problem with having design entrepreneurs as creative decision-makers, as long as they follow existing values and have a realistic vision of the outcome. However, a designer must earn their role as a decision-maker by combining their competence with the ability to create trust within the product development team. In that case, design entrepreneurs can make decisions upon shape and perhaps even provide initial product-related ideas:

“The challenge for designers is that many of their arguments are not testable or quantifiable, which weakens their argumentation, since other involved parties may demand some evidence to validate their views.” (Ma3).

6.6. The decision to exploit and commercialization

Product development involves some form of decision to continue with production and promotion, but sometimes the process may move back and forth between product development and initial market introduction. In line with this, it might be better to bring the process to a complete halt if the commercial expectations do not level with the identified venture ideas.

“It is the most painful decision, when a couple of years of work have been done, and then the project is finished before the end, and the product never reaches the consumers. However, it is much better than not to have the guts to do it before the failure goes to the consumers. That is one of the most critical points.” (Ma1)
Consequently, as stated by marketer Ma2, the courage to make the decision to quit before serious investments is as vital as the decision to exploit a venture idea in the first place. However, in practice it is a challenge to distinguish in advance between potential failures and successful ideas. For instance, design expert De2 describes a design company where production decisions are made more or less based on the commercial intuition of potential customers and retailers. In that specific case, the designer is not allowed to take part in decision-making. Instead, decisions are made among company management and retailer representatives, who evaluate product ideas and make decisions regarding those to be commercialized. Similarly, they might assess the price at the same time, based in principle on how many they expect to sell of that particular product. If the estimation is low, then the price becomes high due to the small series, or if they predict high sales figures, then the price will be lower. For instance, producer Pr1 used to have their retailers involved in their product development team and decision making in a similar manner. The retailers represented different international market areas, and the cultural differences made it difficult to reach consensus in decision-making. Today, their product development team contains mainly company employees, but they collaborate to some extent with foreign design entrepreneurs. In that sense, they are able to receive market responses without having too many developers involved.

Product development tends to be a long and expensive process. Therefore, reflection and product testing are important before deciding to launch new products onto the market. Producer Pr3 explains that after implementing a quality system, they have started to emphasize process and market suitability more than before. Therefore, they spend a lot of time on thinking and testing the product before making the decision to launch it on the market. In line with this, marketer Ma2 suggests that customer orientation and listening to the customer should be a significant guide during the entire product development process. In fact, marketer Ma2 states that their customers have an important commercial role, and, as a result, they should not be forgotten when discussing commercial decision-making:

“We know the customers so well that they tell us what they want, and working with the designer we strive to bring these desires to reality. When the customer wants something, it is worthwhile to do it like that since then it brings sales and money for everyone. The designer’s role is to be constantly present and commercial and design parties discuss together all the time.”

(Ma2)

According to marketer Ma3, product testing should include the sales people and people from production, since the former sets the price ceiling and the latter clarifies what is technologically feasible to produce. Nevertheless, collaborative decision-making is often important because the parties may find it challenging to make commercial decisions alone. Instead, they may seek suitable synergies together, based on the target customers and the price expectation. For instance, design entrepreneurs do not necessarily have extensive commercial competence or motivation. Instead, design advisor Ad1 propose that such competence may derive from their collaborative parties and customers, which makes interaction among the different parties important. However, design expert De2 feels that design entrepreneurs have stronger relations with product development than with marketing, and so commercial decision making is often foreign for them, except for those cases where they are designers with their own products:
“Designers with their own products are in principle in a decision-making role, regardless of whether the product is commercial or not, since they develop it entirely alone. I think that for many designers the case that you think professionally that this is something new and fun, and perhaps someone else would like to have it. However, I would say that commercial thinking is generally pretty vague for the designer in the development process.” (De2)

Marketer Ma1 supports this view and states that design entrepreneurs have a weak position associated with commercial decision-making. That said, design expert De1 argues that sometimes product developers may be aware and informed of product development, but they are not necessarily part of the process. Instead, product developers may state preliminary views and goals for production and marketing. According to design expert De2, a product development process may continue rather sequentially into production, but it can be hard to get the sales people and customers to accept creative solutions. As pointed out by marketer Ma1, those accountable for marketing and production make the final decision to exploit. The decision-making is more challenging when new innovative products need to become commercially successful. Consequently, marketer Ma2 encourages both producers and marketers to have patience regarding their commercial expectations.

The decision to continue from development to production derives often from assessing the commercial intuition of the internal development team, as well as distributors and retailers who are in contact with the potential end-customers, as suggested by producer Pr1. The design entrepreneur is not always involved in making decisions regarding the continuance of a product development process. Instead, design expert De2 feels that the management and product representatives often listen to the distributors when evaluating product ideas, making decisions to exploit and assessing the price-cost structure. On the other hand, the decision-making varies to some extent, depending on who is the driver of the process. For instance, in the case of subcontracting, someone has already made the decision to create the product. Then, according to producer Pr2, it is up to the producer to state an interest in supplying it by giving a price for producing it, based on technological suitability, production capacity, and profitability. On the other hand, if a design entrepreneur brings a fairly developed product as a drawing or an idea, then he starts off by testing its durability associated with marketing, design and production costs.

According to marketer Ma1, designers with their own products are potentially able to make design-related decisions alone, their decisions may stand in conflict with manufacturability and/or commercialization. Hence, generally design entrepreneurs make their decisions based on their relationship to design. Marketer Ma4 argues that, depending on how passionate and deep it is, they may want to earn more money or instead create new inspiring products. Industrial designers, including design entrepreneurs, often awaken to commercialisation after a negative market response. At best, commercial aspects and costs control runs through the entire process, starting from product development, to production and finally promotion. Marketer Ma1 feels that close co-operation between designers, producers and business people are important. Focusing on either creativity or commercial aspects might steer the process in one direction or the other. Instead, commercial goals should feed creativity in an interactive way. Producer Pr1 argues based on broad business experience that the design industry
is a particularly peculiar field. It captures so many aesthetic aspects which are impossible to measure in commercial terms.

“It is fully possible to believe certain things, and after years realize that either you have been right or wrong. According to my view, design is also about how products fit the distribution chain and commercialization. One should be talented at it, and not push the wrong products in the wrong places. Then again, one should also consider whether the product really will become a business, or whether it is along just as an extension – such should not be accepted. That is probably how you measure commercialisation in advance.” (Pr1)

6.7. SUMMARY AND DISCUSSION OF IDENTITIES

The following reflection is conducted to identify potential problematic forms of authority which might have influenced data construction and interpretations in this study. The reflection focuses more specifically on what external actors said and potentially intended when they talked about resources, relationships with design entrepreneurs, and product development processes.

Concerning the differing needs and resources, the respondent transcripts include variations concerning reasoning on specific themes and questions. The majority of production and marketing companies lack internal design competence, which implies that design expertise is purchased whenever needed. On the other hand, both marketer Ma4 and producer Pr2 made it clear that they themselves are responsible for the design function. Their design-related competence lessens the need for external design expertise, even if they may outsource certain design-related tasks. In general, companies buy design as a service on a project basis. The design-related competence is valued as a significant resource in external actors’ product development processes. However, design entrepreneurs are often seen as fairly unsocial and not enthusiastic concerning networking with professionals outside their field of expertise. In that sense, marketer Ma1 assists selected design entrepreneurs in combining their competences with various external actors, and marketer Ma3 assists various external actors in creating competitive product development projects. The limited number of production companies and the stock of available venture ideas cause competitive challenges for design entrepreneurs. Similarly, external actors want to ensure that they invest in projects with controllable risks and feasible outcomes, since both producers and marketers tend to be risk averse. This puts marketer Ma1 and Ma3 in a special position where they bring competitive product development processes together and also influence the market-orientated communication. In general, the lack of resources forces design entrepreneurs to adapt to others processes, but there must be a demand if they offer services or product-related venture ideas. They are given the freedom to create as long as they remain within the production and business-related boundaries. However, all producers emphasized that design entrepreneurs often have weaknesses related to both production and business competences. Therefore, designers with their own products find challenges in bridging production and marketing of their own venture ideas. Producer Pr4 was the only one who did not combine his own products with subcontracting, but still he had similar feelings to the others. It is especially important to plan the product range and concepts ahead (Pr1) and have clear vision (Ma3), but design entrepreneurs appeared to show many associated weaknesses. Nevertheless, marketer Ma1 claimed that design entrepreneurs are the weakest actors in product development, but still they are forced to
carry proportionally the largest risks. This statement makes sense when considering her special role as protector of selected design entrepreneurs’ interests.

Concerning **building relationships** with design entrepreneurs, *producer Pr4* claimed that the current trend is that producers and marketers want to limit the number of design business relationships. It is evident that some of his larger distributors are doing this for the moment. This may explain why *producer Pr4* emphasized the same when discussing design entrepreneurship and other business relationships. In any case, it appears as if design entrepreneurs continue to be employed as resources in product development, but *producer Pr1* suggested that in long-term interaction design entrepreneurs may be given more challenging tasks. Actually, most of the external actors assumed that design entrepreneurs want to work primarily with design-related tasks. It is more than likely that the external actors’ relatively small company size and product range influenced their views on building overarching or strategic relationships with design entrepreneurs. Both producers and particularly marketers emphasized long-term relationships, but primarily related to the design function. However, *marketer Ma3* also warned of risks for goal-orientated product development caused by long-term relationships. Then again, her role is to assemble competitive product development, so it made sense that she should call attention to group dynamics.

Both *marketer Ma1* and *Ma3* argued that some producers and marketers do not understand the benefits to be gained from design. Ultimately, they contacted only well-known designers, because it feels somehow safer. In general, the external actors emphasized that they expect pro-activity from design entrepreneurs. It is not enough simply to show references. Instead, the design entrepreneurs need to address specific external actors purposefully, by knowing the company, and its products and processes (e.g. *Pr1, Pr4, Pr4, & Ma2*). For instance, *producer Pr1*, who has probably seen many of sales pitches, claimed that there is a need for design entrepreneurs to convince others of the benefits. However, *design expert De2* argued that design entrepreneurs can also be rather selective themselves when choosing appropriate partners. Overall, it is a small field, as pointed out by *producer Pr3*, and thus it is important that one has a good reputation and references (*De1 & De2*).

Concerning collective **product development processes**, the transcripts made it evident that each company has a genuine product development pattern. In the preceding period of specific product development processes, external actors tend to straighten out their strategies. This is done without the involvement of design entrepreneurs, since ideas typically emerge from the customer surface (*Pr1, Pr3, Ma5 & Ma2*). It appears that design experts and advisors are those concerned about the design entrepreneurs’ minimal role in preceding strategic decision-making. For instance, *design experts De1 and De2*, who are among other things experienced industrial designers, claimed that design entrepreneurs should be regarded as partners in product development rather than assistants or resources. Similarly, *design advisors Ad1 and Ad2* called for close interaction between all parties, which is in line with their mission to enhance the role of design in the industry. However, *marketer Ma4*, for instance, claimed that their external designers and subcontractors do not commonly communicate directly with each other. Perhaps *Marketer Ma4* is a special case due to his competence in design and production, which allows a mediator role in between these parties. In general, usage of
subcontractors is common within the industry, which naturally influences the possibilities for flexible production and volumes.

Producers and marketers generally prefer to work internally with strategies and they do not even use design entrepreneurs extensively as sources for venture ideas (Pr4 & Ma2). On the other hand, producer Pr3 explained that in the past it was common to work closely together with design entrepreneurs, which allowed simultaneous product and production development. Even today, he feels it is easier to communicate with design entrepreneurs who are familiar with the means of production. This can be important, since it is a critical step to transform design into final products, as pointed out by producer Pr2, who is also a professional product designer. Normally products require adjustments before they are producible. According to marketer Ma5 design is only one feature of the product, and design entrepreneurs are needed to create the shapes of the products, where after their role decreases. Design entrepreneurs want to focus on creating novelty and newness, whereas external actors prefer a demand and business process focus (De2 & De1). For instance, marketer Ma4 and producer Pr1 claimed that competitors increasingly copy each other and rapidly produce imitations of the others’ product innovation. Thus, the lifespan of products is becoming shorter, which lessens the interest to invest in authentic products (Pr1).

Marketing has an ever-increasing role in promoting new ventures and enhancing their sales (De1). Producer Pr2 and marketer Ma3 felt it was easier to launch imitations and product variations. Marketer Ma1 admitted that design entrepreneurs are not those with the greatest knowledge of marketing, but suggested that it is important to listen to them as well. Marketer Ma4 highlighted the role of international distributors when the venture idea involves novelty, and also explained that there are many failures from the past within the industry. It can take years of struggling before everything is moved into place. Producer Pr2 and Pr4 and marketer Ma4 brought out many examples of failures, or at least the need to re-develop recently-launched products. For instance, producer Pr1 admitted that due to inexperience a product development project may result in a failure. In the past, he used to trust too much in the intuition of design entrepreneurs who had not considered the commercial aspects thoroughly enough. Such mistakes can be both expensive and time-consuming, which probably explains why external actors are somewhat cautious and risk aversive in their product development behaviour.

Consequently, it is evident that design experts and design advisors formed the glue holding together the line of interpretation put forth in this chapter. They had a broad insight into the examined phenomenon, whereas producers and marketers were specialists concerning their specific contexts. In that sense, producer and marketer transcripts offered important insights from working closely with design entrepreneurs and details from their specific product development processes. In general, the external actors interviewed typically represented business-orientated people, whose identity was typically that of a confident and thriving businessman or woman. In their case, I was mostly concerned about underlying political agendas that they may have wanted to issue, by using me as the intermediate. Based upon on my interpretations, I found that the producers and marketers focused primarily on assessing the role of the design entrepreneur in association to them and their product development processes. Some of them regarded design entrepreneurs practically as professional experts who were appointed on a project basis, whereas others emphasized collaboration in joint product
development processes somewhat more. It is arguable that they may have chosen to respond in a certain way, but at least I did not feel that there was a hidden agenda in the external actor transcripts. On the other hand, they all represented slightly different types of businesses, which put them in a somewhat authentic role concerning their association with design entrepreneurship. This probably explains the variation in the way external actors responded to the questions. If any, then perhaps some of the statements made by design advisors and experts could be interpreted as including some hidden agendas, such as policy-related improvement suggestions. Nevertheless, I saw this as completely natural, taking into consideration their role in society and in relation to design entrepreneurship. In fact, I think that the advisors and experts brought additional perspectives to the subject and that they were perhaps less restrained in answering certain questions than the managers and business owners. Consequently, whenever I identified any potential hidden agendas, I ensured that I was far more cautious in making my interpretations.
7 ANALYSIS OF DESIGN ENTREPRENEURSHIP

This chapter presents my interpretations of the empirical material. The aim of the chapter is to enhance our understanding concerning the progression of entrepreneurial processes in the given empirical context. Consequently, the following analysis is set out to find answers in relation to the theoretical and empirical perception of entrepreneurs as amplifiers of their own entrepreneurial processes and others product development processes. The most important questions to be answered are: How do design entrepreneurs shape their venturing career? How do design entrepreneurs enact their own entrepreneurial career and co-construct that of others? How are entrepreneurial processes initiated by design entrepreneurs jointly organized with external actors?

The chapter begins by setting out interpretations of the design entrepreneur interview material (7.1), which is divided into an analysis of process elements (7.1.1-7.1.6), opportunity-based reasoning (7.1.7), behavioural-based reasoning (7.1.8), and findings from design entrepreneur interviews (7.1.9). Thereafter, the chapter continues by putting forward interpretations based on external actor interviews (7.2), by referring to idea generation and design-related novelty (7.2.1), means for collaboration (7.2.2), and product development processes (7.2.3), in addition to findings from external actor interviews (7.2.4). The chapter ends by bringing together the overall research findings (7.3.), by focusing on the shaping of new ventures (7.3.1), the roles and positions of involved actors (7.3.2), and the merger of entrepreneurial and product development processes (7.3.3). Finally, design entrepreneurship is framed as a dual process (7.3.4) and openness is showed towards other theoretical representations (7.3.5).

7.1 INTERPRETING ENTREPRENEURIAL PROCESSES

In accordance with the review of industrial design in Finland (Chapter 2), the collected material suggests two different approaches to design entrepreneurship, namely: service provision and design of one’s own product. Some of the respondents also discuss the possibility of combining the provision of services with designing their own product. The concepts in the tables derive from the theoretical discussion in Chapter 3. Table 5 on the next page includes a summary of the interpretations from design entrepreneur interviews. The primary message is that design entrepreneurs become self-employed because it enables them to work as seemingly independent industrial designers. Simultaneously, they struggle with business-associated obligations, and would like to solely focus on design and product development. However, it appears to be challenging for design entrepreneurs to locate trustworthy collaborators, because their networks contain primarily likeminded creative individuals.
## Table 5  Overview of preliminary interpretations of design entrepreneur interviews

<table>
<thead>
<tr>
<th>Element</th>
<th>Preliminary interpretation</th>
<th>Representative quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual characteristics</strong></td>
<td>Creativity, independence and freedom are more important than wealth.</td>
<td>“I do not see such a great value in money, as do many people who think very materialistically and for whom money can be almost as a god.” (A)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“I would do in brackets &quot;the same thing&quot; to some extent, even without a salary.” (D)</td>
</tr>
<tr>
<td><strong>Individual competences</strong></td>
<td>Education and experience in industrial design, but generally not in entrepreneurship.</td>
<td>“I know the materials and how to process them, production techniques, and industrial processes and how to manufacture products.” (B)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“I believe that experience is essential for entrepreneurship.” (F)</td>
</tr>
<tr>
<td><strong>Industrial and institutional factors</strong></td>
<td>Competition, low-compensation and lack of design related knowledge among customers, suppliers and collaborators.</td>
<td>“There is this kind of an old tradition, if a designer is successful in business, then he/she is not credible as a designer.” (C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Due to the oversupply, the prices have been pushed down.” (B)</td>
</tr>
<tr>
<td><strong>Opportunity identification</strong></td>
<td>Initial identification both demand and creativity based, but thereafter need to consider production and market factors.</td>
<td>“Ideas are often born by thinking. In practice, they can be born from anything and anywhere.” (G)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“We have from the start in the design process considered the object, or needs among people, and then created mind-maps and drawings.” (H)</td>
</tr>
<tr>
<td><strong>Decision of self employment</strong></td>
<td>The decision almost self-evident due to a low opportunity cost, but limited willingness and capabilities to invest in business development.</td>
<td>“I do not know, on the other hand, I experience that today everyone in the field are self-employed.” (E)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Perhaps the major reason for entrepreneurship is to receive an income from a work, which does not necessarily even feel like work.” (B)</td>
</tr>
<tr>
<td><strong>Decision making and exploitation</strong></td>
<td>Decisions are often not made in isolation from other actors, who tend to influence decision-making.</td>
<td>“I find it somewhat challenging to operate with considerably larger raw-material suppliers, for whom my demand is a fractional business.” (D)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“It is annoying sometimes, when you believe there is a good product that will sell, but no one else believes it. That is so frustrating and then you almost get the feeling ‘damn it, I will produce this myself.’” (C)</td>
</tr>
<tr>
<td><strong>Modes and strategies</strong></td>
<td>Several types of modes, but typically new organizational creation is not in focus. Vague short term planning and lack of long term strategies.</td>
<td>“I do not believe that ideas will finish, so that will not be the problem. A larger problem is to get the ideas to the market.” (E)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“On the other hand, I realize that operating a business requires a lot, I know that one cannot do many things simultaneously.” (H)</td>
</tr>
<tr>
<td><strong>Resource deficits</strong></td>
<td>Available ones relate to competence and education in industrial design, but deficits associated with business, production and marketing are present.</td>
<td>“I realize the desperate need to devote myself to promoting my services, but I just have not been capable of doing it.” (A)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“In the beginning, it was practically ‘from the hand to the mouth’-life, I refer to the purchase of raw material.” (D)</td>
</tr>
<tr>
<td><strong>Initial outcomes</strong></td>
<td>Generally positive towards the future. Identify the need to search and cooperate with customers, suppliers and collaborators.</td>
<td>“The ongoing challenge is to reach some form of continuity, so that it would provide the bread evenly and on long term.” (C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“I started to realize that I must find someone who is willing to produce it. Where do I actually manufacture this?” (D)</td>
</tr>
</tbody>
</table>
In addition to the interpretations set forth here, each of the entrepreneurial processes are brought together and exposed as process descriptions in table format (Appendix 6). This is done to increase the insight and overall comparability, and to support the analysis work, where material from the interviews are interpreted. In the tables, the process elements and activities are documented in order of appearance, based firstly on my interpretations of the design entrepreneurs’ own interpretations concerning their entrepreneurial processes. Consequently, the tables are used to steer the analysis, sort the data, and to identify potential patterns of process sequences. Special attention is paid to the classification of activities, to ensure that they do not transform and drift during the analysis. It is important to ensure that concepts do not unintentionally change their original implication. There is a potential risk related to the learning process of the analyser as the work goes on.

7.1.1. Personality factors

The interviewed design entrepreneurs are generally open-minded, especially towards new trends and approaches (extraversion). Personal motivation is, understandably, of significance for them, since particularly creativity requires enthusiasm. Consequently, it is no surprise that the respondents generally regard themselves as passionate individuals with a drive for innovativeness and progression. However, they also seem to get easily bored, or at least their enthusiasm declines if things are not developing smoothly. Variation appears to be particularly important; thus, replication and routines are generally felt to be unexciting and avoidable. Peculiarly, the majority finds role models in existing industrial designers and other entrepreneurs (representatives), with whom they compare their own entrepreneurial cause. In that sense, even if they do not like to work with routines, they still consider “replication” of best practices and working routines from their role models. This in turn appears to increase their confidence as self-employed workers.

Consequently, they seem to believe more in their own capabilities to perform successfully as designers, than as entrepreneurs (self-efficacy). In that sense, they attribute design-related events to their control, but appear considerably less confident in business-related matters. Perhaps they decide to become self-employed or exploit venture ideas due to a confidence in their design competence instead of a confidence in their entrepreneurial skills to accomplish the task at hand. Nonetheless, many of the respondents suggest that, in practice, it is hard to segregate design and business-related matters from each other, since design entrepreneurs need to encompass both. Previous researchers indicate that creative individuals tend to become self-employed (e.g. Walsh & Anderson, 1995). In line with previous research, it is evident that the respondents have become self-employed due to various personal and social reasons (cf. Dolton & Makepeace, 1990). The design entrepreneurs appear to emphasize fulfilment of personal needs as professional industrial designers, rather than wealth creation or rapid career advancement. Business success is not necessarily their primary reason for becoming self-employed, but they all emphasize the need for independence and freedom. They could perhaps be characterized as personal achievers or expert idea generators (Miner, 2000). As noted above, in general, the design entrepreneurs all appear to be open-minded, especially towards new trends and approaches. Although, the interview data and the interpretations are rich on data concerning personal characteristics, the process
descriptions set forth in Appendix 6 only identified a few associated activities among the respondents. Perhaps this implies that in an entrepreneurial process, personality is a static feature compared with, for instance, the behaviour of individuals.

Creativity requires constant stimulation; therefore, the respondents need to express their emotions and they need interaction to become motivated. In particular, interaction with people from within their own field of expertise appears to be important for stimulating motivation. However, they express, at least to some extent, a shortfall related to social interaction with business people outside their immediate field of attention (agreeableness). Similarly, their social behaviour is more likely to enhance their creative grounds rather than their entrepreneurial cause. In line with this, the design entrepreneurs interviewed seem generally to believe in their creative performance, rather than their capabilities to make an impact as entrepreneurs (locus of control). In that sense, design entrepreneurs receive stimulation from being outgoing towards new things and other creative people, but become exhausted by obstacles that hinder progression.

Following this, the respondents’ feel that it is most essential for design entrepreneurs to have creativity and associated capabilities (creativity). Such capabilities contain the creative way of working, by combining information and expertise with each other. One could argue that the implementation of creativity should result in the creation of simple goods, for low production costs and high quality. Consequently, working within the design sector requires an aesthetic eye and knowledge regarding the present culture, in which feelings and thinking models are present. Some of the design entrepreneurs suggest that professional skills and experience could bring more routine to the creative design process. This indicates that creativity is a talent that is can at least to some extent be trained and enhanced. The question remains of whether artistic and creative capabilities are features that everyone can learn to utilize. The challenge with creativity is similar to any other intangible capability. Hence, it is almost impossible to determine how creative an individual really is.

Overall, it is important for the design entrepreneurs to have capabilities to express themselves and to ensure that others understand what they intend. In particular, the more experienced design entrepreneurs seem to possess a strong belief in their cause and they seem to have gained trust from others (confidence). Those design entrepreneurs with more experience appear to have a stronger belief in their cause, and they also have experienced confidence from others. In contrast, the younger and less experienced respondents seem to face an evident lack of confidence. In addition, dreams and visions seem to be important for the design entrepreneurs, and they are generally positive towards the future prospects of their ventures (intuition). Some of them suggest that goal orientation keeps them displeased with the current situation (e.g. DEB), but many admit that they are not goal-orientated enough (e.g. DEC and DEG).

### 7.1.2. Competence and experience

Regarding competence, as many as 38 activities were identified from the process descriptions put forth in Appendix 6. This suggests that the elements of competence and experience are ingredients of entrepreneurial behaviour, in contrast to the underlying
static factor of personality. The design entrepreneurs generally have a broad and solid basic education in industrial design (all except DEH). However, they tend to lack formal business education (except DEF) and to some extent practical business experience (except DEC, DED, DEG and DEF). This could partially explain their confidence associated with design, but discomfort with business-related tasks. In previous research, education is commonly assumed to reduce the likelihood of self-employment (e.g. Burke et al, 2000). At least here, most respondents argue that education provides them with the means to work independently, which is typical for industrial design and also for self-employment. In addition, their education provides them with confidence and a working routine, which assist in taking actions and making decisions in various situations.

For any professional designer, it is valuable to have a broad and solid basic education, which preferably focuses on the specific design profession and industry of interest. Despite their high level of education, the responding design entrepreneurs claimed to be sincere about their entrepreneurial involvement. This may be due to the general lack of work opportunities, but also due to their individual characteristics described earlier. Some of the interviewed designers have combined skills from different industries, and others have deepened their knowledge in a particular design-related field. Entrepreneurial talent (e.g. analytical skills) is commonly obtained via academic education. However, according to previous research an arts-orientated education is an exception (cf. Van Praag & Cramer, 2001). The conclusion is that people who choose arts-orientated education are less interested of an entrepreneurial career in the first place.

The findings here provide an additional explanation, since many of the design entrepreneurs criticize their former schools and lecturers for having some kind of an antipathy towards business-related matters. Still, the respondents identify the need for ongoing education, both in industrial design and entrepreneurship. In general, the design entrepreneurs seem to feel that they lack entrepreneurial talent despite their varying forms of education in relation to industrial design. It is likely that the industrial-design-related education in Finland has some form of a shortage of basic business-related teaching. This is felt to be rather peculiar by the respondents, since a large share of their colleagues have decided to become self-employed. Some of the respondents suggest that the lack of business education could possibly explain why so many industrial designers simply lack the systematic, business-minded way of working. On the positive side, many of the respondents seem to have found business-related information and assistance from other sources than their basic education.

Despite the respondents’ thorough interest in, and insight into, design, the associated experience varies in accordance with their individual life and career experience (Aldrich, 1999). Life experience depends on age, and it seems as if the youngest design entrepreneurs (i.e. DEA, DEB, DEE, DEF and DEH) to some extent lack the necessary information and competence to become self-employed. In contrast, the older ones (DEC, DED and DEG) seem to have more of a business mind, and they are more credible to others, as well as having a broader scope of social contacts. However, this is a very subjective comparison based on the interview material. Another interesting finding related to age is that the two oldest design entrepreneurs (DED and DEG) are both talking about a life after their business, but the others are still struggling with
creating a career and setting up a business. Some of those interviewed have fairly recently graduated from their educational institution (i.e. DEA, DEB, DEE, DEF and DEH), while the others also have previous work experience (i.e. DEC, DED and DEG). Generally, experience is central for design entrepreneurship, along with courage and belief in the future. Essentially, career experience signifies that everyone starts from the bottom and needs to work their way to become what they are.

All of the respondents have at least some experience of external employment, either within or outside the field of industrial design (career experience). The design entrepreneurs commonly seem to agree that a career as an employed designer has several limitations, especially in relation to the possibilities for open creative articulation, and career development. In addition, many of them regard the traditional career development as foreseeable, including two to three development steps. A designer can manage to reach the position of a supervisor and perhaps the next level, but not the executive level. Therefore, it is no wonder that they think that career development when employed in a firm lacks possibilities.

A few of them still must work, or have previously worked, with tasks which are not in line with their education or their desires. In the past, the majority of the design entrepreneurs have experienced work in companies and factories involving tasks that did not require creativity. Generally, these kinds of experiences seem to stimulate them towards self-employment. Hence, the general feeling is that work tasks should be stimulating and creative to be interesting and rewarding in the long run. On the positive side, previous work and, for some, self-employment experience has provided contacts, routines and the sense of capability to operate their own business, at least on a small scale (general business and industry experience) (cf. Taylor, 1999). In addition, those respondents who have previous experience of forming new ventures (i.e. DEB, DED and DEF) seem confident that it will assist them in creating a sound business in the future, too. They know what needs to be done and also what kind of product or service-related demand exists on specific markets (Cooper et al., 1995).

Regarding vicarious learning, some respondents have observed other entrepreneurs and also industrial designers in action, to expand their own experience and develop their professional and entrepreneurial cause. Some of them also have self-employed parents (e.g. DEF and DEH), which should increase their likelihood of having an entrepreneurial mindset (e.g. Taylor, 1996). The attitude towards entrepreneurship varies significantly between the respondents social networks (social and cultural factors). Their families and friends seem to influence their career choices, for instance, parents, spouses and newborn children seem to influence their way of working. Some spouses, parents and friends seem to discourage, whereas others are supportive towards self-employment. In general, the respondents appear to find the social acceptance among colleagues and others to be more important than social status associated with entrepreneurship.

7.1.3. Environmental reasoning

According to some of the respondents, Finns often assume that Scandinavian design has a household image in Europe, and the rest of the world. However, this is according to
the respondents largely a myth, at least when considering the possibilities available for Nordic designers to find work opportunities abroad. Moreover, the design entrepreneurs seem to have the understanding that it is challenging to sell industrial design to Finnish industry. This may partly be due to the large number of industrial designers, but probably it is also due to the past failures in promoting design properly to industry. As in many other fields of business, design entrepreneurship relies heavily on contact networks. Hence, you know someone who can recommend you to someone else who in turn may offer you a work opportunity. There is nothing as important as a proper recommendation from a third party. If you know and trust in someone who recommends a certain designer, then there is no need to look into a product portfolio. In general, the respondents seem to value trustful relationships, since such interaction builds on equal values and similar visions. The shortage of customer, supplier and collaborator contacts makes it challenging for new design entrepreneurs to enter the market.

Consequently, the respondents seem to lack an extended business network to some extent, and for some reason they are not actively creating one. This makes it considerably harder to locate appropriate business partners who could support commercialization of venture ideas (production and marketing). Overall, to have a proper network is important, since it speeds up processes. However, to develop networks takes time and may require experience. Being a design entrepreneur is a lonely job, since work is mainly done alone in the studio. It is no wonder that most of the respondents lack a social network, for example, the kind which would come via a shared workspace with other likeminded designers. The design entrepreneurs seem to acknowledge this, but many of them are not actively working to improve their situation, for instance by networking with professionals from other business fields. This in turn could give them strength and contacts for carrying on with their own businesses. That said, the design entrepreneurs agree that they would occasionally want to reflect their ideas with others.

The domestic industry characteristics support small-scale business start-ups. At the same time, the design entrepreneurs commonly admit that they lack both competence and willingness for large-scale business and venture growth. Particularly, freshly-graduated industrial designers may have a hard time to find external employment, which pushes them into self-employment. The knowledge demand is one reason for the current imbalance between the supply and demand of inexperienced industrial designers. Another reason is that there are too many graduates qualifying as industrial designers, in comparison with the present level of working opportunities. Consequently, inexperienced design entrepreneurs (e.g. DEA, DEB, DEE and DEF) are forced to choose between tasks that are not related to their education, or to become self-employed to enable them to continue working with tasks related to industrial design. However, the large number of industrial designers and the insufficient demand conditions force them to drop prices. Regardless of the compensation levels, the interviewed design entrepreneurs are committed to self-employment, and they all strive to address industries in more or less specific niches. However, the small size of markets and limited demand seem to force service providers in particular to address organizations located in a multidimensional resource space. Even more so, their potential clients operate in different competitive landscapes (i.e. industrial niches), which could be seen as both an opportunity and as a threat for small scale design entrepreneurs. On the one
hand, their income potentially derives from many different business areas, but on the other hand, working broadly may hinder them from becoming specialists in certain niches.

Although the status of designers has improved in Finland, respondents feel that selling design is challenging. In the past, Finnish design entrepreneurs worked more closely with selected client companies, for a longer period, which created a trustful relationship between these parties. In that sense, design entrepreneurs did not need to actively promote their services, nor did their client companies actively seek for new talent. The current market situation has changed this tradition, which puts increasing pressure on the design entrepreneurs. Suddenly, they need to promote their services or product-related ideas since there is a large supply of competitors. However, the respondents generally feel a certain kind of aversion towards self-promotion, because it remains difficult to open discussion as an industrial designer in Finland. In that sense, the traditional industrial sectors are still not prepared to use design extensively in their product development processes. Many domestic firms are not focused on international sales and they have no intention of expanding their sales volume. Similarly, many subcontractors do not understand the risks of not developing their own business. Consequently, the respondents commonly say that it is challenging to sell industrial design to Finnish industry. The process descriptions in Appendix 6 identified only three activities that accurately described the industry or the institutional environment. Instead of discussing specifically environmental factors, they were interpreted mostly in association with venture ideas and market-related activities.

The institutional environment is particularly central for design entrepreneurship in Finland. Besides heavily subsidized education, the large majority of the respondents use available governmental financial resources in their entrepreneurial endeavours (cf. Pennings, 1982). Examples include: a government-sponsored start-up salary for the first six months of self-employment (DEA); governmental financing to explore the production feasibility features of a domestic raw material (DEC); financial and advice in patent-related matters, in addition to assistance in relation to international trade (DED); exploration of the business potential of a design concept with government-provided financing (DEE); a government-granted business loan (DEF); financing of the entire patenting process by the university as well as working as a government aided artist (DEG); and finally, consultation from government-aided financial experts, and an application for financing of product development (DEH). It appears as if the government is able to influence the entrepreneurial conditions to some extent. However, despite aided product development, designers with their own product claim that for some reason many of their product-related ideas do not reach the markets. Consequently, the Finnish industry offers work opportunities for self-employed industrial designers, as long as some boundaries are considered. At least among the respondents, there appear to be only limited possibilities to invest in business development. They seem to be prepared from the start to sacrifice profit, even without any foreseeable opportunities or willingness for business growth. As long as the majority of resource requirements are of a human kind, the educated design entrepreneurs have low entry barriers. However, business development via financial investments may prove considerably harder. In line with previous research, the amount of available governmental financing probably explains at least partially the design
entrepreneurs’ willingness to become self-employed. On the other hand, the results do not support the influence of taxes or salary from employment, since most of the design entrepreneurs claim other reasons than wealth for becoming design entrepreneurs.

### 7.1.4. Creation of venture ideas

The identification of venture ideas among design entrepreneurs is analysed based on the sources, forms and development of identified venture ideas. Sorting out identified venture ideas is by no means easy. It is also important to recall that venture ideas may sometimes point at entire businesses, but may as well point at concepts and product families or single products and services. In this case, the interviewed design entrepreneurs commonly discuss venture ideas mainly related to selected products and services. In general, designers are regarded as highly creative people, but the respondents also pointed out that professional innovation and creativity commonly take place within certain and given boundaries (e.g. technology, usability and productivity).

Design entrepreneurs tend to investigate their surroundings in order to find new ideas (identification of venture ideas). There is a need to reflect over the environment for business-related trends which might in one way or another be associated with their work. The design entrepreneurs must also habitually identify potential new market areas, new products and other such similar issues. In addition, some of the respondents explain how ideas might sometimes emerge from working creatively, but admit that design is often purposeful and seldom relies on pure self-expression or feelings. Moreover, the design entrepreneurs often have similar motivational backgrounds, but rather heterogeneous experience, knowledge and capabilities to identify ideas. Therefore, each design entrepreneur presents to some extent authentic options related to venture creation. The development of an identified idea can be either clean cut, or more indistinct. In fact, design entrepreneurs commonly identify first a wider range of choices. Eventually they justify and select appropriate ideas that have the potential for further development. Overall, it is indisputable that when designing something it must eventually be sellable, or it might as well classify as art. However, the development process is in fact seldom clear-cut and instead evolves.

Moreover, it seems challenging for the design entrepreneurs to describe and define venture ideas. In general, industrial designers and design entrepreneurs must consider business-related aspects in relation to the design of specific products. However, most of the respondents feel that it is restricting to consider production and sales related aspects right from the start and during the design process. This in turn makes it somewhat harder to distinguish between entrepreneurial and design-related ideas. In any case, industrial designers should always create something new and different, which may derive, for instance, from the invention of new goods and services, or the identification of a customer need. Regarding business-related ideas, there is a need to look into the specific characteristics of an early innovation (i.e. venture ideas), to understand its substance, and to develop it into a desirable good.

In total, 31 activities were identified in association with venture ideas and identification. Venture ideas tend to develop either from a product or customer perspective, but also sometimes by very practical hands-on trial-and-error testing. In order to identify venture
ideas, design entrepreneurs feel that they possess an ability to see things that others do not observe. This suggests that alert and creative individuals are sensitive with regard to seeking for and identifying venture ideas. This ability and alertness probably derive from their prior knowledge (e.g. Cohen & Levinthal, 1990), but also from their creative mindsets. The design entrepreneurs tend to begin design related tasks by striving to work in a creative manner.

Product-related venture ideas should include newness value and they can sometimes even be characterized by new-means-end frameworks (cf. Shane, 2003). Such ventures are typically born of a creative idea and not of an existing market demand. More commonly, venture ideas address a latent market demand, with some form of design-related novelty. It is expected of industrial designers that they will always create something new and different. However, newness appears to associate more with the design features than technological and business aspects. Accordingly, design should ensure archetypes that have the appropriate features (e.g. the right size, looks, colour, form, price, audience, place and demand), which it is believed will result in venture ideas also from the business perspective (development of venture ideas). The challenge is that design is only one feature associated with developing desirable venture ideas. In addition, technology and business-related factors play a significant role. Consequently, a design entrepreneur should have a broad perspective of the value chain, since design must match with other elements of the product development process.

In particular, being able to work with their own projects (e.g. designing own products) is often desirable, since it potentially allows more autonomy related to the usage of creativity; at least, this is what many of the respondents claim. Nevertheless, many of the design entrepreneurs sell design as a service to their client companies. Working with their own projects also forces them to work across the entire value chain, including production and business tasks, which perhaps is against their wishes. Nevertheless, it is important to consider production and sales from the very start of venture idea development. However, the challenge is that a design entrepreneur may become disenchanted due to the constant consideration of sales and customer satisfaction. It is frequently the case that products are developed without a clear picture of the production technology or market realities.

### 7.1.5. Execution and modes of organization

The decision to become self-employed is a natural choice to the design entrepreneurs interviewed, since it allows them to work with design-related tasks. The number of identified activities in the process descriptions was only 12, which may indicate that the decision was regarded as self-evident, or that the decision was done over time and not explicitly at one particular point in time. Nevertheless, the respondents generally seem devoted to exploit venture ideas associated with their own or their clients’ products. The decision to exploit product or service-related ideas seem to be more complex, since design entrepreneurs do not make such decisions in isolation from collaborative parties and other actors. Hence, all of the respondents feel the strong presence of other external actors in the decision-making throughout the process. Thus, all central parties must agree on contributing their share to the process. However, occasionally the respondents feel that these other parties are willing to contribute only on unreasonable terms.
It could be argued that the design entrepreneurs interviewed have a low opportunity cost, due to their challenges related to finding appropriate employment opportunities and their high desire for independence. It seems as if self-employment is a “vehicle” for the design entrepreneurs to enable their preferred life-style. In that sense, there are few alternatives to design entrepreneurship, since it allows them both independence and high working satisfaction from working without any organizational restraints. Instead of working with unattractive work tasks, they seem to select the excitement and freedom of being independent design entrepreneurs. Regarding risk, they are commonly not averse towards poor and unstable salaries, but they are neither willing, nor have means, to invest heavily in their businesses (risk taking propensity). Consequently, they manage financial uncertainty by keeping their processes as small as possible. This in turn causes challenges, for example, when bringing their own products to the market, or when selling design as a service, since resource availability is often crucial for developing business activities and competences. Perhaps the former could be argued to refer to controllable risk and the latter to uncertainty in relation to future investments (cf. Knight, 1921). Nonetheless, many of the respondents seem prepared to enter self-employment even without any certain sources for future income. On the contrary, there seems to be present an aversion towards business development and especially towards development with external financing. This uncertainty aversion does not prevent them from entering self-employment, but possibly it inhibits them from creating and developing solid new ventures (cf. Gartner, 1985).

The respondents wish to be personally satisfied and earn a living from their work without any further ambitions for large-scale business development. Instead, it appears more common to seek for social acceptance among colleagues, especially by getting recognition as a professional industrial designer. As a result the business is often personalized around one’s own identity. On the other hand, it may be worthwhile for a designer to ask oneself, which comes first entrepreneurship or design? In many cases, the response may be the latter, which makes earning a living from self-employment in design somewhat more adventurous. One solution is to find someone who operates the business, but then the revenues must support the living of one additional person. Overall, being a design entrepreneur seems to require a “double personality”, which implies a capacity to face both business and design-related matters. To work as a design entrepreneur is somehow contradictory, since there should be enough time to do both. Paperwork is mandatory, but is felt to be rather uninteresting by the respondents. The design entrepreneurs commonly agree that they must insist on allocating time away from design to look at business related aspects. These other aspects may kill creativity, but they are often necessary to enable entrepreneurship. Similarly, external employment would also imply paper-work, so perhaps it is impossible to work without some bureaucracy as an industrial designer.

Economic performance is clearly not the major success indicator for the respondents. They often struggle with small expenses, modest incomes and moments of balancing their personal finances, by working with tasks not associated with their profession. For most of them, a secure income is valuable, but they determine success not by looking at economic figures, but rather via design-related recognition and acceptance. Moreover, industrial design is a labour-intensive specialist profession which builds on a trust relationship between the provider and purchaser. Therefore, it is challenging to increase
the volume significantly without adding an equal amount of labour force. Similarly, customer relations build on trust, and it is therefore hard to expand the number of customers without adding to the number of competent contact persons (e.g. Kalleberg & Leicht, 1991). The respondents commonly claim that they lack both competence and the willingness for large-scale business operations and venture growth.

Design entrepreneurs are typically confident regarding their professional competence. Nevertheless, since they work primarily alone, they must work relatively hard to develop their businesses. Their interests, time and other resource constraints make it challenging to combine business and design-related tasks. The willingness among the design entrepreneurs to focus on design-related tasks has some consequences. Instead of taking a co-ordinating role, design entrepreneurs often work as experts who perform certain and specific tasks. In that sense, many of the design entrepreneurs interviewed work with preproduction-related tasks, and their customers, suppliers or collaborators are responsible for production and post-production activities. For example, related to their own product designs, they might collaborate with a production and/or marketing company that takes care of the business and pays the designer for sold items; or they might sell design as a service to another company’s product development process. However, working with external actors is not always easy.

Moreover, the design entrepreneurs commonly encounter a shortage of financing and other assets, such as production equipment (financial capital). Consequently, they cannot afford, nor do they seem interested of investing in, the production and post-production activities (e.g. distribution and promotion). Therefore, design entrepreneurs have a desire to overcome some of their resource-related deficits by making use of resources that are controlled by their customers, suppliers and collaborative partners. This is possible as long as the design entrepreneurs possess ideas or resources that others do not have, but need in order to increase the value of their own business activities. However, in accordance with their human resource deficits, the respondents tend to agree that they must actively push the promotion of their businesses. This again makes it more challenging to cover resource deficits by making use of other resources. In addition, their willingness to focus on design-related tasks has some consequences.

As indicated earlier, the decision to exploit a venture idea is important, but the design entrepreneurs interviewed are not alone in making important decisions. Concerning the mode of organization, a total of 31 activities were identified from the process descriptions in Appendix 6. Analysing new venture creation among the selected design entrepreneurs offers only limited information concerning their entrepreneurial endeavours. In fact, the “organizations” behind the design entrepreneurs generally contain only one employee, i.e. themselves (organizational design). For a number of reasons, the creation and development of a formal organization is simply not the primary focus for the majority of them, but instead they report a number of other forms of venturing activities. Many of them show a long track record of activities before formally registering a trade name (e.g. DEA, DEB, DED, DEE, DEG and DEH). Designers with their own products seem to cope longer without registering a business, whereas design service providers need to register to invoice company clients. The endeavours of the design entrepreneurs represent different modes of organizing, depending on the type and development phase of their businesses. The design service providers (DEA, DEB, and DEF) sell design as a service and charge their client
companies either on a project or hourly basis. The designers with their own products (DED, DEE, DEG, and DEH) need to consider production and distribution issues before their products reach the markets. They need to consider their willingness to exploit it on their own or on behalf of someone else (e.g. Shane, 2003; Johannisson, 2005). Ideas related to their own products can be commercialized by their own company, but also sold or licensed to some external party (e.g. a producer or distributor). If licensing, the compensation is generated via royalties or a time-based compensation scheme. Royalty contracts are still common among designers with their own products, but one-time payments are also increasing in number.

Generally speaking, all the design entrepreneurs interviewed would like to work primarily with design and product development. Selling industrial design as a service allows them to focus on working with design, but then the initial idea and boundaries are normally provided by the client. When bringing their own products to the market, the design entrepreneurs can operate more freely, at least at the beginning of the process. On the down side, they must carry the risks associated with product development alone, and they are also themselves responsible for organizing the value-chain. However, they tend to lack financing, time and competences to take care of all associated tasks alone. Thus, designers with their own products often need to collaborate with producers and distributors, which again is likely to diminish the desired degrees of creative freedom. Outsourcing at least parts of production and distribution allows them to work more with design and product development. If self-employed, they will still be responsible for operating their own business. Consequently, self-employed designers feel that they must balance between creative output and economic input. Similarly, success requires creativity and competence both related to design and entrepreneurship. One should not only be able to notice upcoming trends, but also to be able to design good products or services in line with them. The innovation process in turn must be continuous, which again calls for creative capacity regarding entrepreneurship, too.

Consequently, it seems as if design entrepreneurs enjoy working in the creative procedures, rather than on the necessary actions to advance their businesses. As a result, their entrepreneurial processes evolve often without a clear business strategy (entrepreneurial strategy). In general, the lack of an overall strategy makes it challenging for design entrepreneurs to control their operative business. Design entrepreneurs often work on project basis in a turbulent environment, which could explain their challenges related to long term planning. Instead of being very business orientated, they strive to reach an acceptable income level by working simultaneously with many projects. In general, the lack of an overall strategy makes it potentially challenging for the design entrepreneurs to control their operative business. Some of them have, or have the intention of working, with both service provision and enhancement of their own product-related projects (e.g. DEA, DEB, DEC, DEF and DEG). However, working with several product or service related ideas simultaneously also involves some potential challenges. For example, the design entrepreneurs’ limited resources (e.g. time and competence) are often split among a range of smaller projects, which all need their attention to develop into income-yielding businesses. This can be challenging when there are several simultaneous products/services and modes in process. It could be advisable to classify preferred tasks, which would allow focusing
and working with clients and products that would yield results both financially and creatively. On the other hand, it is also important for a design entrepreneur to secure long-term income by having several ideas in the pipeline. Hence, continuity seems to be a problem, since design entrepreneurs typically sell their design services to product development projects or promote their own goods, both of which have a given lifecycle of around 1-4 years.

Regarding initial outcomes, it appears that promotion and marketing causes challenges for the majority of the design entrepreneurs interviewed. For instance, those who sell design as a service must convince potential client companies to purchase, whereas designers with their own product must in various ways convince potential producers, distributors and end-users. Moreover, some of the respondents have various experiences of operating their businesses. These are mainly associated with pricing, international trade, collaborators and so on. In addition, they have various future aspirations and expectations which are mainly built on their experiences of being design entrepreneurs, or in some cases lack of such experiences so far.

### 7.1.6. Opportunity-based reasoning

Taking an entrepreneurial opportunity perspective implies that the unit of analysis is the individual entrepreneur. One conceptual model introduces the possibility of multiple units of analysis (i.e. individual, process, venture idea and environment) (Shane, 2003). In addition, the primary cycles and motors of change appear to be the entrepreneurial acts, decision-making, and entrepreneurial alertness. Other cycles or motors of change are identification of venture ideas, entrepreneurial creativity and social networking. Next, the aim is to identify and describe the essence of specific process activities. There is a great variance in the mode of change among the behavioural models.

In total, the interview data interpretations identified 41 activities in relation to the underlying factors that influence the search for venture ideas. Table 6 below presents the researchers’ interpretations of the design entrepreneurs search activities.

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of design entrepreneur interviews</th>
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<tbody>
<tr>
<td><strong>Search activities</strong></td>
<td>Creativity, education and experience are sources for new emerging venture ideas. Inexperienced design entrepreneurs rely more on their creativity and education as sources of ideas, whereas more experienced ones compare initial findings with their industry and market-related previous experience.</td>
</tr>
</tbody>
</table>

Most of these activities relate to education and previous work experience. For instance, DED decided to continue studying industrial design (D3), as well as learning from discussing with existing customers (D10). Eventually, continuing to study became the source for identifying a novel product-related venture idea (D5). On the other hand, DEA graduated from artisan studies (A1) and, instead of becoming self-employed (A2), the decision was made to continue with studies (A4), perhaps due to the lack of relevant education and previous experience (A3 & A5). Still, DEA felt the need to improve in
verbal skills \((A12)\). DEB has previous experience from part-time self-employment \((B1)\), has completed artisan studies \((B2)\), has two years of work experience \((B3)\), has completed industrial design studies \((B4)\) and at the moment a business network is being built \((B6)\).

On the other hand, DEC did factory work after college \((C1)\), which provided experience and stimulation to continue with industrial design studies \((C2)\) and associated work practice \((C3)\). New contacts resulted in the continuance of studies abroad at the university level \((C4)\), but after some years of studying and working abroad it was time to return to Finland \((C11 & C13)\). DEE studied \((E1)\) and worked for several years with physiotherapy \((E2)\) before work experience resulted in the decision to study industrial design \((E3 & E4)\) and, eventually, work practice in a design company \((E6)\). After that, DEE continued working with physiotherapy \((E8)\), but applied to, \((E18)\) and planned to, continue studying industrial design and also develop products developed personally \((E19)\). DEF has attended an arts secondary school and college \((F1)\), and has also had a desire for entrepreneurship \((F2)\). Consequently, DEF applied for further studies \((F3)\), and studied, business \((F4)\) and industrial design \((F5)\) with the idea of combining the necessary competences to set up a business \((F6)\). Originally, DEG studied construction drawing \((G1)\), started to work in an advertising agency \((G2)\), and decided to study marketing \((G3)\). However, after some years G quit work \((G4)\) and applied for education associated with handicrafts and industrial design \((G5 & G6)\). In contrast to the others, DEH has never studied industrial design, but has a thorough interest in it \((H3)\) and has instead studied the humanities \((H1)\) and is a professional aeroplane pilot \((H2)\).

According to Herron and Sapienza (1992), individuals’ dissatisfaction is influenced by their aspiration. This in turn is based on the individuals’ values, context and personality traits. In addition, Bhave (1994) suggests that venture idea identification is either externally or internally stimulated, which is in line with OPM (2006). OPM suggests that venture ideas in relation to industrial design may commence from customer needs or be born of creative idea generation. Moreover, the entrepreneurial aspiration is influenced by values, context and personality traits as well as skills (based on aptitude and training). These in turn influence the entrepreneurial search behaviour along the entrepreneurial process (Herron & Sapienza, 1992). Similarly, Fiet (1996) stresses the essence of making investments in specific information and having previous experience associated with the venture ideas to be identified. According to Shane (2003), the entrepreneur, the environment and the interaction between these influence the discovery and exploitation of venture ideas. Consequently, access to information is regarded as a necessary pre-step for identification and the decision to exploit venture ideas, which derives from life experiences, social networks and search processes (Shane, 2003).

Table 7 below presents the researchers’ interpretations of the design entrepreneurs’ identification and development activities. Overall, 11 activities were associated with identification. Initially, after graduation, DEA had identified a venture idea and had some initial interest in self-employment, but a small scale market study proposed that the competition was intense and the necessary investments too high \((A2)\). DEB is also scanning the markets for potential venture ideas by contacting various companies and looking around \((B5)\). On the other hand, for DEC, one business or product-related venture idea has led to another, by working with various projects instead of searching actively for new venture ideas \((C5)\). DEA, DEE and DEG have all identified product-
related venture ideas via their course assignments (D5, E7 & G7). In addition, DEE has identified venture ideas from frequent reading and drawing, and suddenly waking up in the middle of the night with the idea clear in the mind (E5). Similarly, DEG works more creatively when identifying features related to artefacts (G12), but is more purposeful when developing or re-inventing volume products (G13). DEF suggests that identification and early development should not necessarily be demand-driven and business-orientated from the start, even if profitability is central (F13).

Table 7 Identification and development of venture ideas

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of design entrepreneur interviews</th>
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<tbody>
<tr>
<td>Identification and development</td>
<td>Ideas are identified from working creatively, alertness, scanning the market and listening to customers. Venture ideas are developed either on one’s own, or preferably in close interaction with actors acquainted with production and distribution-related matters.</td>
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Most explanations suggest that entrepreneurial alertness, which derives from previous education and experience, determines venture idea identification (e.g. Herron & Sapienza, 1992; Shane & Venkataraman, 2000; Shane, 2003). In line with this, Fiet (1996) argues that information and experience offers signals of venture ideas. Gaglio and Katz (2001) also assume that entrepreneurial alertness influence identification, which is line with the Austrian stream of research (e.g. Kirzner, 1973). Similarly, Ardichvili, Cardozo and Ray (2003) believe that alertness influences the core process, and it leads to abortion, venture formation or subsequent business. On the other hand, Lumpkin, Hill and Shrader (2001) discuss deliberate or unintended preparation associated with venture idea identification. Unintended identification is to some extent similar to Sarasvathy (2001), who suggests that creative processes emerge by taking a set of means as given and focusing on selecting between possible effects that can be created with that set of means.

In addition, a total of 24 activities were identified associated with venture idea development. For instance, DEH currently conducts initial product development by mapping needs and demands among potential customers (H6). The aim is to finalize design sketches and then produce a prototype and start production (H4). DEA has put considerable effort into developing a proper home page (A8), and overall business development (A13), but argues that the current situation does not allow extensive development of the overall business. DEA discusses business development with a friend who is also starting a similar business (A7), but so far it has been more about seeking for direction (A11). Currently, DEB works with building prototypes (B7) and has visions and plans for future self-employment (B9), but is also looking for employment opportunities (B8).

On the other hand, DEC develops many ideas simultaneously in projects taking place both in Finland and abroad (C14). In addition, DEC is currently working with two aggregate-level business ideas (C19 & C20). However, the aggregate business idea remains vague and business planning is felt to be somewhat unenthusiastic (C16 & 18). DEE has for the moment a vague business idea, but similarly to DEC is simultaneously developing many product ideas and concepts (E9). DEE receives government-
subsidised assistance to conduct market analysis, which assesses venture idea validity and searches for co-operative parties (E11) to develop the product concept further (E12, E13 & E15). Originally, DED developed the initial product-related idea in the available spare time, besides working as a craftsman (D6). After many years, when the product was introduced onto the market, DED began to build a network organization around the product, including a lot of trial and error (D12). In addition, an international patent and trademark was purchased to protect the venture idea (D13). Due to the aim of internationalization, there is a constant need to develop the product and also the business processes (D14). DEG has also gone through a patenting process in cooperation with the university (G8). Currently, DEG is further developing volume products in particular, in close co-operation with a producer and marketer (G16). After leaving the own design store, F identified a new venture idea in offering design as a service (F10), and service-level venture ideas are now developed in association with client companies (F12).

Moreover, 31 activities were identified in association with exploitation, and the researchers’ interpretations are set out in Table 8 below. To begin with, A made the decision to become self-employed and notified the tax office (A6). G had a product-related idea and an indistinct business idea, when founding a trade name (G10). On the other hand, F founded a formal organization when opening a design store, and while looking for suppliers and store space (F7). However, F was forced to shut this store due to bad financials (F9). D made the decision to go into craftsmanship due to the risk of unemployment (D1). Eventually, the desire arose to move from craftwork into entrepreneurship (D8 & D9), which resulted in the decision to create a limited liability company 14 years after starting as a craftsman (D11). Now there is the desire to find a successor and return to design (D15). Some others have also reversed their decisions concerning self-employment: for instance, C was employed by C’s largest client after working for a while as a freelancer (C7). After 5 years, the decision to become a freelancer was rethought (C8 & C9). In addition, G finds it possible to sell the entire business to the highest bidder, which would allow working more broadly with design and creativity (G18). H claims that it is not necessary to found a company to be an entrepreneur. Thus, H will not make the decision to create a company before it is necessary due to cash-flows or for receiving government support (H7).

Table 8  Design entrepreneur exploitation activities

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of design entrepreneur interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploitation activities</td>
<td>Both production and bringing identified venture ideas to the market are often regarded as uninteresting and resource consuming. Instead, there is a desire to associate with various external actors, and a general interest in externalizing exploitation and focusing more on identification, which results in a range of modes to exploit.</td>
</tr>
</tbody>
</table>

According to Herron and Sapienza (1992), good venture ideas eventually lead to launch activities which are directed at developing organizational structure, in accordance with industry context and strategy. More broadly, Campbell (1992) suggests that the outcome is not only the creation of a firm (i.e. organization), but also production of a new product or use of new technology or new organizational form. This is similar to Bhave
(1994), who refers to organization creation, but also product creation, linking with markets, and customer feedback. On the other hand, Fiet (1996) focuses on the individual as a risk bearer or risk arbitrageur. Similarly, Ardichvili, Cardozo and Ray (2003) focus on the individual by stating that entrepreneurial alertness influences the core process, which may lead to abortion, venture formation or subsequent business. Shane and Venkataraman (2000) emphasize the decision to exploit and execution as central elements of exploitation. The decision to exploit builds on individual and environmental factors, and the execution involves resource assembly, potential organizational design and strategy (Shane, 2003).

The interview material also contains activities associated with resource assembly and co-operation with other parties (i.e. customers, suppliers, and collaborators). For instance, H reports initial co-operation and early negotiations associated with product conceptualization (H5). E feels that industrial design somehow conflicts with business and so is looking for a business partner (E16) or someone to co-operate with (E10), for instance in producing E’s own product ideas (E14). Before getting the business running, E must work with various tasks to make a living (E17). Similarly, F is looking for collaboration with appropriate producers (F14). F also sees possibilities in forming a partnership (F15), and is therefore looking around for potential producers and business partners. The aim is to work more as an organizer in the future regarding service provision (F16) and to find a producer for F’s own products (F17). G purchased the patent from the university due to its business potential (G9), but to date the work has been carried out without a long term strategy (G17). For the future, G sees it one possibility in merging studios with an advertising agency, but is somewhat concerned about the risk factors associated with raw-material availability (G14).

Regarding promotion and initial outcomes, 11 activities were identified. To begin with, A reports a dislike towards calling potential clients (A9) and admits that it took 6 months of self-employment before the first customer was acquired (A10). G also admits that customer contacts could be closer and more frequent (G19). C reports work as a freelancer on different occasions (C6 & C10), and promotion of services especially in Finland (C15). In the future, the aim is to sell more of C’s own product designs, since they yield royalty income (C17). After many years as a craftsman, D made an initial market introduction with the product innovation by participating in a Finnish exhibition (D7). The introduction was promising, but the decision was made to continue with work as a craftsman due to limited personal resources. On the other hand, operating a store forced F to argue with suppliers and provide explanations to clients (F8). Now, when offering industrial design as a service, the situation is different, even if it is challenging to sell design (F11). For G, the first sales caused some rapid decisions to be made concerning production assembly and product pricing (G11).

### 7.1.7. Behavioural-based reasoning

Furthermore, taking an *entrepreneurial behavioural* perspective implies that the unit of analysis is primarily the individual and/or the organization being created. It is also possible to focus on the industry, the network, or the environmental context of an organization as the unit of analysis. The primary cycle and motor of change appears to be entrepreneurial behaviour in new venture creation. Other cycles and motors of
change are personal and organizational characteristics, in addition to the environment. Next, the aim is to identify and describe the essence of specific process activities, following the overarching modes of change introduced in Chapter 2. These are more specifically: pre-venture activities, venture creation activities and post-venture creation activities. The categorization is justified because it gives a unified structure for comparison and interpretation purposes.

From the material in Appendix 6, a total of 61 activities were indentified that are associated with pre-venturing. Table 9 presents my interpretations concerning the pre-venturing activities of the design entrepreneurs. Consequently, for instance, B has a vision and is writing a business plan for future self-employment (B8 & B9). Similarly, E has some future plans, which relate to the desire for freedom as a self-employed worker. In addition, E has plans to combine personal competences into business (E19) but is also seeking for a partner to help out with business-related matters (E16). H, on the other hand, has an initial business idea which builds on a desire to design products and combine this with entrepreneurship (H3 & H4). After some years as an employee, C decided to take a sabbatical year, due to too-specific work tasks lacking variation (C8).

Table 9 Design entrepreneur pre-venture activities

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of design entrepreneur interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-venture</td>
<td>A lot of activities that are associated with education and collecting experience before venture creation. These in turn influence the individual behaviour associated with new venture creation.</td>
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</table>

According to Greenberger and Sexton’s (1988), vision, personality and a desire for control are the catalysts for the venture creation process, since they influence individuals’ decisions. On the other hand, Moore (1986) suggests that innovation is influenced by personal characteristics, or the propensity to found new ventures (Learned, 1992). There are also other researchers that emphasize the personal characteristics and behaviour of individuals who start new ventures (e.g. Gartner, 1985; Busenitz & Lau; 1996; Moore, 1996; Bygrave, 1989). In addition, Bhave (1994) offers an extensive and detailed description concerning pre-venture activities, but these are set out under the entrepreneurial venture idea discussion below.

Overall, 8 of the 61 identified activities were associated with vision and personality. The interview material brought up overall 23 activities associated with education and 11 of 61 associated with previous experience and competence. For instance, B has previous experience from part-time self-employment (B1). As a result, it is not possible to clarify the role of these in pre-venturing, since previous research largely ignores individual-level aspects. Instead, the focus is on the behaviour of the individual who creates the new venture. For instance, Moore (1996) refers to creativity, information-seeking behaviour and tolerance for ambiguity. Similarly, Bird and Jelinek (1988) discusses behavioural flexibility in addition to a flexible focus, structuring resources and temporal agility as factors that influence the process of venture creation. Learned (1992) emphasizes the individuals’ background for creating a new venture. Busenitz and Lau (1996) suggest that various personal variables influence cognition and the cognitive process, which in turn both influence the venture creation decision. None of the authors
are particularly specific concerning the role of previous education or competence and experience. In fact, Learned (1992) is one of the few sources that emphasize the individuals’ backgrounds. In addition, Gnyawali and Fogel (1994) discusses the ability to enterprise (entrepreneurial and business skills), the propensity to enterprise (socio-economic factors) for the likelihood to enterprise and new venture creation.

The literature generally ignores the discussion concerning the origins of venture ideas and the development of products and service-related ideas into business concepts. This meant that associated activities were left without a proper explanation. In fact, Gnyawali and Fogel (1994) provide the only source that identifies and properly defines opportunities (i.e. venture ideas) as possibilities for new ventures to exist, and that this existence in turn is influenced by government policies and procedures. Consequently, their definition of venture ideas primarily focuses on environmentally-dependant factors for organizations to exist. In that sense, products or service-related venture ideas are not in focus. Therefore, it is not possible to give a detailed explanation based on the literature, regarding product innovation or development (e.g. E12 & H6). All of the 13 registered activities that deal with venture ideas focus on identification of products, services or business-related ideas, but none of them discusses precisely the environment as a possibility for new ventures to exist. Nevertheless, the majority of new venture creation models ignore sources of venture ideas, but associate the discussion with the environment surrounding the new venture (e.g. Gartner, 1985). For instance, Moore (1986) suggests that innovation is influenced by the environment as a source of venture ideas, support for creativity and personal environment (see also Bygrave, 1989, 1994).

Overall, 6 identified activities associate with the environment. For instance, B actively scans the market for business-related venture ideas by contacting companies and looking around (B5). However, the definitions in new venture creation literature of what kind of venture ideas qualify, or where they derive from is not particularly precise and it is lacking in part (cf. Davidsson, 2004). Vaguely associated with venture ideas, Hansen and Allen (1992) reflect over the load and diversity of information, which in turn influences the environmental load and the pre-organization. On the other hand, Van der Werf (1993) takes a more traditional view by suggesting that venture creation intentionality is influenced by the attractiveness of industry, the ability of individual ventures to compete, and the technical effort. In addition, for instance, Gnyawali and Fogel (1994) suggest that financial and non-financial assistance influences the likelihood to enterprise and new venture creation. Comparing with the interview material, E is currently conducting a government-funded development project which focuses on entrepreneurs’ own business concept innovation (E11). Starr and Fondas (1992) assume that organization formation depends on anticipatory socialization, including attitudes, expectations and information sources in the environment, as well as the new entrepreneurs’ socialization, built on motivation, socializing agents and structural factors. Similarly, Busenitz and Lau (1996) refer to the social context and cultural values. For instance, B is actively trying to build a business network by locating co-operative parties to increase the competence range of the future business (B6). Similarly, E and H seek for co-operation to produce and promote their own product-related ideas by asking around, calling and visiting candidates (E14 & H5). Overall, the interview material suggests that the entrepreneurs are in no hurry to create and develop,
or they have no intention of creating and developing, formal organizations. For instance, \( H \) suggests that a company will be founded when it is necessary (\( H7 \)).

The literature generally refers to the creation of new ventures, but the 17 activities identified in the interview material focus more on, for instance, the interest directed towards self-employment, the decision to become self-employed and business development on the general level (e.g. \( A2, A6-A8 \) & \( A13 \)). Table 10 below presents my interpretations concerning the design entrepreneurs venture creation activities. For instance, \( C \) explains that there has been movement back and forth between self-employment and employment without any formal venture creation, development or suspension taking place (\( C5 \) & \( C9 \)).

Table 10  Design entrepreneur venture creation activities

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of design entrepreneur interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venture creation</td>
<td>New venture creation is associated with products and services, not the creation of new organizations. This is due to the desire to work with identification rather than exploitation of venture ideas. For those that develop organizations, it either takes a long time or their strategy changes vigorously. In any case, they all strive to work in collaboration with other actors rather than employ anyone.</td>
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</table>

On the other hand, \( D \) decided upon working as a craftsman and worked from home for several years while minding the children before moving the business to its own space (\( D1 \)). It took 14 years of self-employment before a limited liability company was eventually formed (\( D11 \)). In contrast, \( F \) created a new venture immediately after graduation (\( F7 \)), but after just one year the business focus changed completely (\( F11 \) & \( F12 \)). More typically for the respondents, \( G \) registered a trade name when cash flows required a formal organization (\( G10 \)). On the other hand, it took six months for \( A \) to get the first customer (\( A9 \) & \( A10 \)), and \( A \) continues to seek for direction for the future business (\( A11 \) & \( A12 \)). According to Moore (1986), implementation of new venture creation is influenced by personal characteristics, innovation characteristics and the environment. This is similar to other researchers (e.g. Gartner, 1985; Greenberger & Sexton, 1988; Learned, 1992), who particularly emphasize individual characteristics and the environment, but commonly ignore innovation (cf. Bygrave, 1989). In addition, rather differently from the others, Larson and Starr (1993) suggest that network crystallization equals organizational formation, which implies contracting, expanding and culling as well as various forms of multiple exchange processes. Bhave (1994) refers to commitment to physical creation, which is followed by commitment to venture creation, including organizational creation and production technology.

Moreover, 41 activities were identified with an association to post-venture creation. Table 11 below presents the design entrepreneurs’ post-venture creation activities. However, in line with this study, the majority of the process models do not cover topics associated with post-venture creation activities.
Many activities relate to the time after becoming self-employed, even if a formal organization has not been created in the majority of cases. Particularly, the more experienced design entrepreneurs have experience of internationalisation, overall business development, and initial outcomes. However, the majority of them continue to struggle with setting up the exploitation of identified venture ideas.

In fact, D, F, C and G are really the only ones discussing post-creation issues extensively. For instance, D moved the business to its own space (D2), and identified a venture idea (D2 & D5) that resulted in an initial product idea (D6). Further, it is introduced onto market (D7), but D continues with work as a craftsman (D8). Despite the desire (D9), it took almost ten additional years before a new venture was created and the necessary resources acquired (D10), and some additional years to build a network-based organization (D12). Patent filing (D13) occurs as well and a step-wise internationalization of the business (D14). Eventually, D felt the desire to return to designing products instead of operating a business (D15). This is all interesting information regarding post-venturing, but existing models does not discuss them very thoroughly, nor is this study particularly interested in such post-creation activities. More interestingly, F experienced challenges associated with operating a store (F8), the decision was made to close the store, and eventually the idea of continuing with design service provision (F9) emerged from customer demand (F10). F wants to establish collaboration by finding collaborators and partners, both producers for F’s own products (F14) as well as business associates (F15). Future plans are associated with service provision (F16) and also bringing F’s own products to market (F17). The dramatic change of business focus is to some extent interesting for the purposes of this study, an issue that, for instance, Webster (1976) touches upon, claiming that rapacity, re-negotiation and termination are parts of the entrepreneurial process.

Moreover, C was a freelancer abroad for a large design company (C6), but eventually the client made C an employee (C7). After some years, C was working once again as a freelancer (C10), he joined a project in Finland (C11), and awoke the possibility to move back to Finland (C12 & C13) and work internationally from there (C14 & C15). However, the business idea remains vague (C16, C19 & C20) and there is a need for business planning (C18). There is the desire to design more royalty-based products, which are produced and sold by others (C17). For some reason, business planning and moving flexibly between self-employment and employment is not discussed by the referred authors. Finally, G makes the first product sales (G11) and decides to focus both on developing volume products (C13 & G16) and creating artefacts (G12). Currently, there is a risk associated with the availability of raw-material (G14), and G is planning to merge studios with another business (G15). There is a lack of a long term strategy (G17), but G is playing with the thought of selling the business at some stage (G18) due to the desire for freedom and financial security (G19). In a similar manner to the others, the referred literature explains some parts of the activities, but a thorough coverage of business focus, ongoing product development, or long term strategies are not offered. For instance, Webster (1976) discusses initial market success and reviving
hope, which deals with rapacity, re-negotiation or termination of ventures. In addition, Moore’s (1986) extensive model covers the influence of personal and organizational characteristics, and the influence of the environment on venture growth (see also Bygrave, 1989, 1994). Bhave (1994) suggests that in the exchange stage, supply and demand meet on the market. This interaction provides operational feedback for the organization and production, strategic feedback for physical commitment, and externally stimulated venture idea identification for the organization.

7.1.8. Findings from design entrepreneur interviews

The interpretations so far indicate that design entrepreneurs become self-employed primarily due to their desire for freedom and creativity. The entrepreneurs enjoy idea creation, but have limited interest in becoming involved in commercial activities themselves. As a result, they often have to give up on their desires and need to interact with other agents to bring their design-related ideas to the market. Comparing previous attempts to describe entrepreneurial processes with the findings from this study, the interpretations suggest that existing conceptualizations are not overly extensive in their explanatory power. Nevertheless, they seem able to shed light on the phenomenon in accordance with their original intentions. The challenge remains to explain if and how industrial design-related entrepreneurial processes differ from those found in other social contexts.

As indicated in Chapter 3, creative people are not generally considered to be particularly business minded, since these competences represent two different worlds of human capabilities. Examining several design entrepreneurs allows me to group them according to their business and design-related preferences. In that sense, they clearly show variation in preferred ways of forming their entrepreneurial processes. Some have established connections with other agents who assist in completing their processes; some are recognized service providers who work closely with many types of agents; and some face challenges in trying to offer their services and in getting their products commercialized. It appears as if the largest challenges derive from the lack of business experience, competence and motivation, which would otherwise ease the connecting of other agents to their entrepreneurial processes. Similarly, these features would ease the connection of design entrepreneurs with other agents’ product development processes.

The interpretations here suggest that design entrepreneurs work, or want to work, intensely with creating new ideas, but they are either collaborating already or they wish to do so related to production and marketing. In that sense, the design entrepreneurs consider means for working together with others, but at the same time they find it challenging to join forces. For instance, producers and marketers are often difficult to approach because they are seen as business-orientated and risk-averse towards design-related newness and creativity. Nevertheless, resources are needed for taking ideas to the market, and so design entrepreneurs must either possess the necessary means themselves, or find someone else who can supply them. As the interpretations indicate, few of the respondents are able, or at least prepared, to invest in accomplishing the process without others’ resources.
Consequently, the findings here shed light on many important issues, but more insight is required to understand how exactly design entrepreneurs interact with other agents. Previous entrepreneurial process research does not explain particularly well the situation in which the entrepreneur focuses on idea creation and development, but expects to find someone else to take care of at least parts of production and commercialization. This kind of interaction between different agents possibly implies that the process is becoming increasingly complex. Instead of shedding light on this, the majority of present conceptualizations focus essentially on the sources of venture ideas and the decision to transform idea generation into market-orientated activities. This may also explain why many of the consequential process models appear to take a streamlined or stage-like process sequence more or less for granted. Many of these models are based on an equilibrium-based argument, which may further explain why they strive to simplify the complex reality.

As a result, previous conceptualizations fail to explain to any great extent the ongoing decision-making and choices that are made by different agents throughout the process. The exception is the fairly recent stream of creative process research, which assumes, for instance, that values and meaning emerge simultaneously during the entrepreneurial process (cf. Sarasvathy, 2001). In that sense, venture ideas do not pre-exist, but are created during the process through dynamic interaction and negotiation between process agents. More recently, researchers have also begun to emphasize iterative and interactive behaviour associated with equilibrium-based process conceptualizations. In contrast with previous literature, the findings from this study indicate that design entrepreneurs are not particularly creating or developing organizations, but rather focus on developing new products within their own entrepreneurial processes, or act as resources in others’ product development processes. In that sense, design entrepreneurs can simultaneously be in charge of their own entrepreneurial processes as they collaborate or are involved in others’ new product development processes.

Therefore, I find it necessary to extend the original theoretical framework by introducing additional insights from industrial design and product development literature (cf. Chapter 2). Firstly, this literature can help us to increase our understanding concerning design-related novelty by explaining the implications of the product character and level of innovation (e.g. Calantone et al., 2006), and sources (Clarke & George, 2005; Durgee, 2006) and types of venture ideas (Verganti, 2003). Secondly, it can increase our understanding of collaboration between design entrepreneurs and other agents by explaining the selection, entrance and exit of different agents (Emden et al., 2006), the roles of these agents (Tenny, 2003; Walton, 2003; Sanchez, 2006), and product development related decision-making (Hill & Johnson, 2003; McCarthy et al., 2006).

Thirdly, it can increase our understanding concerning design product development by emphasizing different phases (Cooper et al., 2003), chaotic and more orderly circumstances (Adams, 2003), and design involvement (Chiu, 2002), as well as problem solving (Ingram et al., 2007), feedback and feed-forward loops (Guy & Clark, 1997), and fuzziness and disorder (Kim & Wilemon, 2002). In addition, it makes sense to become acquainted with different types and combinations of new product development processes (McCarthy et al., 2006). Peculiarly, there appear to be resemblances between processes described in industrial design and product development literature and
processes described in entrepreneurship literature. For some reason, this correlation has not been significantly addressed previously, at least among those researchers who are trying to develop conceptions of entrepreneurial processes. These new theoretical insights are believed to assist in capturing insights concerning new product development processes that involve, among others, design entrepreneurs, producers and marketers.

Therefore, it becomes necessary to modify and extend the preliminary conceptual model (presented at the end of Chapter 3), by combining findings from the previous theoretical discussion, the interpretations, and the new theoretical insights. Accordingly, the revised model identifies the need for ongoing decision-making and also the influence of various external agents throughout the duration of the process. By taking these measures, it should better explain how design entrepreneurs actually function as amplifiers of their own entrepreneurial processes and others’ product development processes. As shown in Figure 14, the process model encompasses decision-making (the arrows in the model), and the influence of various agents (on the upper and lower side of the model). In addition, the model addresses complex and diverse feedback processes between activities and agents, which is something that previous researchers emphasize as faithful to the surrounding reality. For instance, Takeuchi and Nonaka (1986) call for interaction during the product development process in order to increase development speed, consistency and the integrity of the product. The model also emphasizes differences between working in idea generation and idea execution. Activities and decisions are bound to overlap, but at some point in the process the emphasis is bound to move from product development to production and marketing-related activities. For instance, Tuulenmäki (2004) suggests that such decisions often involve considerable investment, and some of these may be irreversible.

![Figure 14 Revised conceptual process model](image)

Consequently, the model shows how different agents interact throughout the process. It shows in a manner different from previous entrepreneurial process models how various agents influence the process. However, this is just how it is interpreted from a design entrepreneur perspective. Therefore, it is sensible to continue the empirical research by
interpreting collected data from external actors who have experience of design-product-related production and marketing processes.

7.2. INTERPRETATIONS BASED ON EXTERNAL ACTOR INTERVIEWS

This section puts forward an attempt to interpret the material from interviews with external actors. In a similar manner to the previous interpretations, this section provides a general overview of what the external actors referred to during the interviews, what their responses had in common, and how their remarks relate to previous research set out in Chapters 2 and 3. The tables in this section include summaries of interpretations from the interviews. On the general level, it appears that the explanations show to some extent a relationship with previous research, even if business relations and collaboration were not emphasized in the theoretical discussion to the same extent as in the interpretations. The primary message is that new product development processes tend to build on some form of structure, and they involve a number of agents responsible for certain activities during the product development process. Consequently, as explained previously, even if the decision to become self-employed is made by design entrepreneurs, they are normally not entirely in charge of the process aiming at bringing new ventures (i.e. products or services) to the market.

7.2.1. Idea generation and design related novelty

Table 12 presents interpretations concerning the sources and development of venture ideas. The interview material indicates that there is a preceding period when external actors straighten out their strategies before they commence the product development processes. It seems likely strategies are settled by external actors before design entrepreneurs are allocated to the process. In that sense, design entrepreneurs have limited opportunities to influence the creative boundaries that are manifested in their absence.

Table 12 Sources and development of venture ideas

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of external actor interviews</th>
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<tbody>
<tr>
<td>Sources and development of venture ideas</td>
<td>Customers and collaborators tend to identify venture ideas from customer-related demand, and design entrepreneurs also introduce their own venture ideas to them. They tend to prefer the former source, since it often gives a clearer picture from the beginning of the required production technology and potential sales volumes etc. Nevertheless, design entrepreneurs are needed in both cases to develop the initial ideas into viable business ventures. This should preferably occur in close association with the actors responsible for production and distribution.</td>
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</tbody>
</table>

As indicated by design management literature, design entrepreneurs are often regarded as assistants in product development, without a strategic role in identifying production requirements or demand specifications (cf. Hakatie & Ryynänen, 2007). However as the interpretations suggest, predefined product development processes may damage the quality of the subsequent process, since strategic decisions have consequences that steer
the entire product development process. This perhaps lessens associated risks, but may also reduce the chances of creating something truly ground-breaking. Novelty is often admired by external actors, but at some point too much newness is commercially unacceptable due to potential investments and associated risks. Creativity is central for the creation of novel venture ideas, but external actors generally avoid the creative front end of product development by focusing more on production and marketing feasibility in their strategic sense-making. Instead of sponsoring novelty or so-called new-means-ends (cf. Shane, 2003), external actors typically emphasize the generation of a smaller variation of existing product ranges or concepts. They even feel it is feasible to imitate previous creations (e.g. Davidsson, 2004) which are already on the market or in their own product collection (e.g. Bhave, 1994). External actors are likely to invest in marketing and promotion, which at best increases the customers’ awareness of the newness of the product without the associated risks and uncertainty of true novelty. For instance, some of the external actors let their customers tailor the design of their original product ranges. Overall, design and marketing-related novelty may prosper even if the level of technological innovation remains relatively low (cf. Calantone et al., 2006).

The interpretations highlight the fact that external actors capture new ideas primarily from discussing with existing customers and distributors concerning potential needs or problems. In addition, other parties (e.g. design entrepreneurs) frequently introduce their existing ideas to them (cf. Verganti, 2003; Clarke & George, 2005; Durgee, 2006). In both cases, the assessment of initial ideas normally takes place from a market and production perspective rather than from a design perspective. In addition, external actors commonly show more confidence in venture ideas that derive from their own search and identification activities than in ideas that originate from other actors. Venture ideas that emerge from other actors are likely to be short of one or more of the following features: specified market demand, production efficiency, and/or suitability with the distribution channel and overall product range. In addition, it may also be more time consuming, uncertain and sometimes expensive to assess the potential of externally-generated venture ideas.

Typically, external actors make strategic level decisions alone before seeking more operative-level advice from other actors. This explains why design entrepreneurs commonly have limited influence on decisions related to production, marketing, and customer-driven product development. Nevertheless, design entrepreneurs should be able to discuss their ideas with people who are responsible for business operations as well as production. Design entrepreneurs are able to influence more directly decisions on the operative level as the product development process unfolds, for instance, related to workflows or specific product features. In that sense, design entrepreneurs have an important role as creative mind-openers, since product development builds on combining design, technology and business models associated with entering a commercial environment. Consequently, it is necessary to synthesize information and apply it to capture new venture ideas. Therefore, it may be possible to bring product imitations or variations rapidly to the market, but groundbreaking products require a lot more consideration and assurance.

External actors do not rely extensively on design entrepreneurs’ previous experience, hobbies, social encounters or ordinary observations as sources of venture ideas (e.g. Busenitz, 1996; Gaglio & Katz, 2001). Nevertheless, it could be advisable that design
entrepreneurs with a thorough knowledge of the market and market conditions should be involved in setting the stage for forthcoming product development processes (e.g. Evans, 1989; Cooper & Dunkelberg, 1987). This refers naturally to processes initiated by external actors, since the design entrepreneurs’ own venture ideas often build precisely on their knowledge and intuition of the market, or as often on their creative capacity.

7.2.2. Means for collaboration

The interpretations propose that there are a limited number of producers in Finland, and simultaneously, at least to some extent, an oversupply of product-related ideas. External actors feel that the majority of domestic design entrepreneurs do not possess the necessary resources to develop, produce and promote their venture ideas on their own. Therefore, it is necessary for design entrepreneurs to convince producers and marketers that they can trust in their competence and also benefit from working with them. In addition, their offer must be on the right level, of suitable quality and its delivery assured. The minimum expectation among external actors is that design entrepreneurs are capable of sticking to agreed schedules and capable of collaborating in product development projects. Design entrepreneurs need to be flexible and dynamic experts who listen and capture what the other party is really saying. At the same time, external actors agree that they must be able to provide enough relevant information to design entrepreneurs concerning their requests and the nature of the project at hand.

Despite the origins of the venture ideas, the interpretations demonstrate that design entrepreneurs collaborate with external actors in turning initial ideas into observable design. It appears actually quite rare that external actors appoint design entrepreneurs to search for and create venture ideas, or if they do, they have more or less clear briefs or boundaries for such activities. Commonly, the design entrepreneurs enter the process when there is an initial idea, and depart when it is ready for production. The behaviour of external actors probably explains why it can be challenging for designers with their own product to appoint producers and marketers. These parties often show reluctance towards venture ideas that have less obvious business prospects and that are based more or less on design-related creativity, desire and previous experience. External actors are not opposing the input of these features, but they require identifiable demand and production feasibility, and close collaboration in commercially-driven idea generation. It can be particularly challenging to evaluate these if design entrepreneurs are not willing to let, or incapable of letting, others in on their ideas. Nevertheless, it is important that product developers collaborate with production and marketing throughout the process since this could minimize surprises and offer an initial cost estimation concerning production and product launches. The interpretations put forth above suggest that the level of collaboration varies considerably. In the past, designers developed new means of production together with the production personnel, but nowadays such co-operation is less frequent. This implies that product development must increasingly match available technology and take the means provided as essentially given. Thus, the possibility of developing combinations of novel product design and new production methods has decreased since the attitudes towards technological development have changed in the industry.
It is somewhat concerning that design entrepreneurs are seen as not particularly socially active, especially outside their professional circles (cf. Dolton & Makepeace, 1990). External actors claim that sales and marketing of design is difficult, and so many design entrepreneurs wish to collaborate with someone who would develop design-related ideas with them. However, there are only a limited number of promotion resources available, and without social competences it can be challenging to get products produced and distributed. This is particularly challenging, because external actors claim that they assess design entrepreneurs based on their proactivity and previous references (Stuart et al., 1999). In fact, external actors claim to be rather inactively searching for new design-related talent. Instead, they expect active contacting from the design entrepreneurs. Sales and social skills are important because they provide access to customers and collaborative parties. The external actors acknowledge that starting design entrepreneurs in particular seldom have a broad palette of contacts. They may even have insufficient capabilities to convince others of their competences. At the same time, even young design entrepreneurs have at least some proof of their creativity and skills, since they have references from participating in various company projects during their studies.

The right kind of attitude from all parties is significant for product development and for bringing new products to the market. Many of the external actors feel that young and inexperienced design entrepreneurs may have the right attitude, even if they lack relevant competences. Despite their age and previous experience, design entrepreneurs tend to prioritize design and not financial values. Based on the interpretations, the assumption is that their competence and experience is associated more with identifying and developing products, than financial capabilities and production efficiency. External actors stress that business-orientated design entrepreneurs may be better equipped for new product development since they strive to match their design-related input with other areas of the process. In general, previous research points out that widespread business and industrial experience influences the creation and development of new venture ideas. Here the interpretations suggest that inexperienced design entrepreneurs differ mostly with regard to their design related competences, but they face similar commercial challenges to those faced by their experienced colleagues. In fact, sometimes experience and previous references are seen more as a burden. This is especially the case when design entrepreneurs want to state design-related conditions which are not necessarily in line with the commercial goals of the project.

Table 13 presents interpretations concerning the creative and social competences of design entrepreneurs, as interpreted by the external actors. The interpretations suggest that the creative competence of design entrepreneurs is in general a significant resource for their customers and collaborative parties. In that sense, the competence, experience and other resources that design entrepreneurs possess are the foundation of their value-creating activities (e.g. Brush et al., 2001). In contrast, external actors feel that design entrepreneurs usually have inadequate business-related competence and interests. It is likely that design entrepreneurs commonly have more knowledge and experience associated with industrial design than business-related activities (cf. Cooper et al., 1995). However, it is also possible that design entrepreneurs show certain ignorance towards commercial aspects. Business realities often set boundaries for creativity, but
professional design entrepreneurs should be able to express themselves in the available space.

Table 13 Creative competence and social factors

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of external actor interviews</th>
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<tbody>
<tr>
<td>Creative competence</td>
<td>Design entrepreneurs are commonly regarded as professionals in their own right, and their competence and experience are appreciated. However, sometimes they might be unsocial and not business-orientated towards potential customers, suppliers and collaborators.</td>
</tr>
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<td>and social factors</td>
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In order to reduce business-related risks, all parties should check the business and credit information of their associates, and learn more about specific competences, companies and business activities. A more frequent usage of contracts would reduce business risks for all parties. In addition, external actors in particular should have integrated control mechanisms in their processes, and they should brief design entrepreneurs of their existence. Various companies generally have at least an authentic product development pattern, from idea generation to product launch. As a result, design entrepreneurs may consider it to be risky to start working for new client companies since they are not necessarily familiar with their particular production or marketing processes. Consequently, external actors need to create a complete picture of all organizational functions that their product(s) depend on, and ensure that design entrepreneurs understand how design is a part of the overall business functions. This is important, since design is only one part of the organization, along with product development, manufacturing, sales, marketing and business administration and so on. In that sense, product development processes mix design, technological and business associated competences together.

Consequently, interaction and maintenance of an active relationship between necessary parties is important for developing feasible products. Product development tends to extend indefinitely in time without proper milestones and deadlines. In general, all parties involved in product development want to support the success of the overall process by carrying out their own task as well as possible. Good collaboration ensures that all parties individually and on the aggregate level are able to perform well. This is necessary since product development typically requires competences and commitment from a range of professionals (e.g. design, promotion, production techniques). Nevertheless, the designers tend to have the weakest role in the product development process. In addition, product development is not only dependant upon the actors in the product development project. In addition, company management, distributors and customers will influence the upfront strategies, as well as the process and final outcomes. Normally, the process initiator (producer, marketer or design entrepreneur) makes the final decisions regarding product design and associated issues. Generally there is no problem in having design entrepreneurs as creative decision-makers, but they need to follow existing values and have a realistic vision of the outcome. Designers must earn their role as decision-makers by combining their competence with the ability to create trust, and, with others, influence the product development process. Then, design entrepreneurs can make decisions upon shape and perhaps even provide initial
product-related ideas and work out strategies. Nevertheless, the external actors suppose
that design entrepreneurs work, or prefer to work, with product development, while
others are primarily responsible for production and marketing.

7.2.3. Product development processes

The interpretations indicate that it is necessary to optimize the venture ideas and the
associated product development processes so that they fit the available means of
production and marketing. External actors emphasize that the outcome should result in
desirable products that are technologically efficient and cost effective to produce and
distribute. Occasionally, product development processes result in unrealized ideas
which end up gathering dust in a drawer. Nevertheless, such ideas are not necessarily
failures, since it may take many years of technological development before all the
pieces fall into place. Sometimes, trustful relations may hasten the process and ensure
the commitment to transform the idea into a success. Table 14 presents interpretations
of production, promotion and outcomes.

Table 14 Product development process

<table>
<thead>
<tr>
<th>Activity area</th>
<th>Interpretation of external actor interviews</th>
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<tbody>
<tr>
<td><strong>Product development process</strong></td>
<td>Commonly, close interaction between product development, production and marketing is required to reach a feasible outcome. In particular, design entrepreneurs must ensure that their ideas have a demand and are producible in a cost-effective way. Novel venture ideas in particular tend to result in modest sales at first, and sometimes in the need to discontinue them or re-define their features. It is often challenging to determine when a product is a failure, or when it is a potential future sensation that customers must first become familiar with.</td>
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A product development process may evolve in many different ways. Occasionally
products are ready for production immediately when they are captured from the market
or introduced by some external party (e.g. design entrepreneurs). Normally they require
adjustments before it is financially reasonable to produce and distribute them. The
decision to continue with producing a venture idea often derives from assessing the
commercial intuition of the external actors’ internal development team. Someone from
the team typically consults distributors and retailers, who in turn are in direct contact
with the potential end-customers. The design entrepreneur is not always involved in
making decisions regarding the continuation of a product development process. However, this varies depending on who the initiator of the process is. For instance, if
design entrepreneurs are looking for a subcontractor, then they have already made a
decision to realize the product. Then it is up to the subcontractor to state an interest by
giving a price for producing it, and evaluate technological suitability, production
capacity, and profitability.

Product development often involves some form of decision to either continue or stop the
process before making a final decision to produce the venture idea and distribute the
outcome. Sometimes, especially in case of novelty and/or when several different parties
are involved, the process may involve substantial complexity and recursive cycles (cf.
McCarthy et al, 2006). For instance, it might be necessary to transform and adjust venture ideas to available production and marketing processes. This can be both expensive and challenging, especially if the venture idea does not originally build on available technologies and means for marketing. Sometimes it can be hard to get the sales people and customers to accept creative solutions. It may take a long time before innovative products become commercially successful, and all parties should have patience regarding their commercial expectations. A seemingly functional match may still result in a negative market response due to some product-related feature or unfavourable cost structure. Based on the feedback, a decision must be made either to redesign the product or to cut costs and perhaps even margins.

Costs may also be reduced by redesigning the product and by making its cost structure more sensible, which in turn allows price reductions without giving up on the margins. In any case, these kinds of activities are bound to result in recursive cycles, which force a retreat from strict market orientation to consider product and production-related means. At best, commercial aspects and cost control run throughout the entire product development process. Commonly, the risk of considerable financial losses makes the parties involved more cautious. On the whole, end-customers do not necessarily understand the value of selective or novel products. This could explain why newness and particularity of a product may result in modest sales, at least at the beginning. Therefore, it may require extra financial investments and a lot of work to motivate particularly marketers and distributors, who are crucial for enhancing sales. Add-ons to existing collections or imitations are easier to process and launch, since the product features and design pattern are familiar from before. The significance of international distributors increases when the product is somehow genuine or special, because the domestic market is generally too small for such products.

Industrial designers in general are educated to create new products, and associated features and methods. However, external actors find this sometimes problematic from a commercialization perspective. Working with novelty often transforms the product development process into a complex interaction between development, production and marketing (cf. Guy & Clark, 1997; Adams, 2003). The borders of the endeavours may float over time since the involved conceptions, activities and persons vary between the different processes they are involved in (Johannisson, 2005). As a result, existing product development practices are not applicable any longer, and there are no guarantees for the success of the outcome. Novel venture ideas, especially when they derive from other actors, may face many product and marketing-related obstacles, which also causes complexity in the process. In that sense, it is understandable that external actors give emphasis to the generation of smaller variations and the imitation of existing product ranges or concepts. In fact, external actors may want to focus less on novelty and more on effective production and distribution-related standards, since the outcomes are then at least somehow predictable. In that sense, investments in production and distribution processes are likely to steer product development.

Product development tends to be a long and expensive process. Therefore, external actors emphasize reflection, product testing and a customer orientation. The material is rich on data concerning ordinary decisions that are made by various parties during the product development process. Regardless of who the original initiator of a product development process is, it is sensible that decision-making should involve all involved
actors (i.e. product developers, producers and marketers). The interpretations of decision-making and the decision to exploit are presented in Table 15.

**Table 15 Decision-making and the decision to exploit**

<table>
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<tr>
<th>Activity area</th>
<th>Interpretation of external actor interviews</th>
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<td><strong>Decision-making and the decision to exploit</strong></td>
<td>There are typically investments involved with the decision to continue to produce and introduce a venture onto the market. The design entrepreneurs are seldom interested or able afford to emerge venture ideas alone. Thus, they must let other actors in on making decisions, not only associated with commercialization, but also creation of the venture idea. The decision-making is continuous and involves several parties at various phases.</td>
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Collaborative decision-making is often important because the actors involved may find it challenging to make commercial decisions without the support of the others. Instead, they can potentially seek suitable synergies together, based on the means for production as well as the target customers and their price expectations. However, design entrepreneurs often work closely with product development. Therefore, commercial decision-making and promotion can be foreign for them. Consequently, the general assumption among external actors is that design entrepreneurs normally have a weaker position associated with commercial decision-making. The interpretations signify that the decision to exploit is one significant decision in the process, which points out a production and marketing-related commitment (cf. March, 1991). Some of the external actors agree that sometimes it might be better to bring the process to a complete halt if the commercial expectations do not level with the venture ideas at hand. Consequently, the courage to make the decision to quit before serious investment is as vital as the decision to commercialize a venture idea in the first place. However, in practice it is a challenge to distinguish in advance between potential failures and successful ideas.

Producers have an important role in product development processes, as they are the ones who set the frames for production feasibility. Some of the producers interviewed continue to engage design entrepreneurs in prototyping and in bringing together production. However, it appears as if today’s industrial designers are often lacking in craftsmanship, especially practical production-related skills and experience. For that reason, they may create complicated shapes or product parts, which makes production more difficult and increases overall costs. Then, the producer must ensure that the necessary changes are made to the design and perhaps even to the selection of suitable raw-materials. In general, the external actors seem to believe that if design entrepreneurs are able to create producible products without interaction with producers, then the product and the essential technology has to be well-known and uncomplicated.

The considerable investments in production typically require volume production and effective logistics. External actors highlight that cost control and the production process must match, since it is unlikely that the production costs will decrease significantly after production reaches certain volumes. Generally, it appears somewhat challenging to decide upon appropriate production volumes for new products. In some cases, it is possible to steer production that is owned by the designer or producer quickly according to demand, but externalized production is more difficult to steer, at least in the short
term. In addition, some producers operate with specific kinds of products more on a customer delivery basis, which is possible due to their flexible warehousing and production processes. Others produce larger volumes of specific products and allow their customers to make final payments and warehouse calls during an agreed period of time. Such agreements are normally a result of a long-term relationship. It is ideal for all parties, since the customer is committed to purchase all the products within a certain time, but they do not need to store them or pay for them at once. In addition, some producers sell products in larger quantities into various projects. In such cases, payments are normally upfront, which diminishes risks and potentially increases the margin.

The picture of production is potentially made more complicated when considering the network of producers that are in some respect involved in the chain of producing specific products. Both marketers and producers utilize various external parties who supply parts, assist in production and assembly, and bring the final products to the market. Some producers own everything from production tools, raw materials and packaging material, but may purchase production and machine-time from their subcontractors. Others, including marketers, may invest in specific production tools (e.g. moulds for plastic production), which their subcontractors use to produce components or final products for them. This makes sense, since production tools are generally expensive and tailored for specific needs.

Marketers and especially purchasers in the distribution network are generally not interested in applied production technologies. Instead, they request products that meet with demand and support an effective delivery between producers and their customers. This also includes promotion, which is vital since it gives the product additional features that will enhance its sales. The interpretations suggest that ultimately customers pay for perceived value rather than being particularly cost sensitive. In Finland, design is often associated with expensive and high-end products rather than the design of everyday commodities. Thus, the price level may not be so vital as long as the product otherwise fulfils the consumer’s desires. The general expectation among external actors is that the involvement of design will increase product sales and preferably decrease associated production, logistics and promotion costs. For instance, sales increase when products are more desirable and the related communication is more striking. Costs decrease when finding new ways to augment the product characteristics. All parties generally emphasize usability features and production efficiency as being important.

Typically, the argument among external actors is that design entrepreneurs do not completely understand the structure of the business, or means for production or marketing. For instance, design entrepreneurs seldom are aware of how sales volumes turn out, nor are they necessarily in contact with the production or the distributors after product launches. In any case, company specific designers or external design entrepreneurs are rather limited in their ability to influence product related marketing or outcomes. Simultaneously, producers and marketers tend to assess the process outcome mainly based on commercial aspects rather than design or technology-related features. For instance, they might value reasonable production costs and high sales estimations. However, product development and launching new products involves substantial risks. The reduction of these risks is possible, at least to some extent, by working closely with the customers and all collaborative parties.
7.2.4. **Findings from external actor interviews**

This section includes an attempt to set out the findings from interpreting the data from external actors. On the general level, the interpretations indicate that external actors anticipate that new product development processes involve a certain structure which influences their way of interacting with design entrepreneurs. The basic assumption is that producers, marketers and design entrepreneurs interact, but they all act and behave from their own standpoints. As suggested by the findings from design entrepreneur interpretations, producers and marketers tend to be to some extent risk averse towards creative ideas due to their significant investments and established business procedures.

Consequently, the findings suggest that producers and marketers are to some extent reluctant towards venture ideas that originate from outsiders. These kinds of ideas involve the potential of unrecognizable risks, and it can become challenging to fit them into their overall production and business processes. Thus, constrained idea generation within certain boundaries is typically preferred, since then the outcome is more likely to be commercially successful. The involvement of external actors in product development potentially implies that production technologies and distribution aspects are considered from the beginning due to their risk averse and market-orientated behaviour. Simultaneously, design entrepreneurs tend to become involved later on in the process because external actors interpret their input primarily in relation to the creation of product-related shape and features. Their role becomes one of assisting in developing existing ideas into viable products or concepts. In that sense, design entrepreneurs generally work with rather traditional tasks associated with product development rather than having a strategic or an overarching role in their process.

Moreover, business reality is likely to hinder the selection of partners and means for collaborating. For instance, long term relations with experienced partners are often preferred, even if new talents are also given opportunities within the boundaries of product development. Design entrepreneurs are accepted only if their venture ideas, competences or resources are considered to contribute to the overall outcome. In that sense, external actors are likely to be rather goal-orientated, and they also expect design entrepreneurs to adapt to established product development processes. As a result, new product development processes are expected to progress in a certain pattern, from idea generation to production and eventually to marketing and sales. Nevertheless, the findings indicate that in reality the processes involve somewhat more complexity, due to venture idea and agent-related variation. For instance, the creation of novel venture ideas increases the role of feedback connections and nonlinearity, especially at the beginning of product development. Novelty appears to transform routine processes into a series of smaller and recursive cycles, as well as to create an increasing overlap and divergence between various activities.

The findings from external actor interviews suggest that the decision-to-exploit is not always significant or obvious, or it may at least be to some extent prolonged in the product development process. In any case, at some point in the product development there is a need to become at least on some level committed to the physical creation of the venture idea. Before making this commitment, creativity is commonly more central and new ideas are prioritized. The goal may be to bring forth as many ideas as possible, or to enhance one specific one, and to find something worth commercializing.
Typically, there is a point in the process that implies some kind of need to make investments. After the decision is made, the advancement and development is more likely to occur on the terms of available production technology and marketing and distribution channels. Idea generation tends to decrease, and production and distribution-related standards increase in importance. The decision implies a focus on organizing an appropriate mode, as well as producing and distributing the selected venture idea on the market. The decision is usually linked with some kind of fixed costs, for instance, investments in production tools and promotion activities. Therefore, new ideas will typically introduce some form of changes to the overall process, which in turn are bound to cause time delays and increase overall costs. Depending on the industry, the costs involved with idea generation, production and commercialization vary considerably.

The interpretations suggest that external actors generally want to play it safe, and so may unconsciously or even consciously avoid the creative front end of product development (cf. Adams, 2003). For instance, design entrepreneurs with their own product-related ideas are often disregarded, even if their ideas would involve market potential and considerable innovative thinking. Perhaps external actors are averse to increased process-related complexity and uncertainty, especially if they are not certain of how to combine the circuits of product development, production and commercialisation with their existing customer base. Nevertheless, external actors are at least to some extent also involved in novel product development, and such processes appear to exceed their ordinary best practices. Simultaneously, external actors emphasize the importance of accomplishing more ordinary product development processes, which aim at generating smaller variations or even imitation of existing product ranges or concepts.

Consequently, it makes sense to construct a general process pattern which shows how producers and marketers typically portray their product development processes. For this specific purpose, I have chosen to adjust the process structure and characteristics of Bhave’s (1994) process model of entrepreneurial venture creation. The original model characterizes fairly well how producers and marketers describe their ordinary new product development processes. It also bears a resemblance to the new product development process models presented in Chapter 2. As shown in Figure 15, the major modification to the original model put forth by Bhave (1994) concerns the activities and interaction of various actors. This alteration is in line with the findings from this study. More precisely, producers, marketers, and designers, as well as other agents involved have various resources and requirements which influence their behaviour and decisions with regard to a given process (cf. Guy & Clark, 1997). This extension is believed to show that agents interact constantly throughout the duration of the process. External actors tend to be in control of larger parts of the required physical resources, which are typically needed to set up production and market related exchange. Design entrepreneurs may control competences and other mental resources that are typically valuable at the beginning of the process, or they may sometimes contribute more across the product development process.
Figure 15  Product development process model

From an external actor’s perspective, new product development processes typically commence from an identified customer-related demand, or from an idea that is brought to them. The creation and development of these kinds of ideas can be more or less iterative and chaotic. As the process develops, both types of processes tend to follow a more structured pattern all through production and commercialization. It is likely that external actors partially require a certain process pattern, which builds upon their existing routines and technologies.

The process model presented above is faced to some extent with the same criticism as Bhave’s (1994) empirically validated model. For instance, there is no systematic empirical evidence, which directly tests the process type described above (e.g. Davidsson, 2005). Nevertheless, previous product development literature and the interpretations from this study seem to support this kind of interaction between the agents, the environment, and the venture ideas. In addition, it is likely that the two types of venture ideas presented above represent endpoints on continua. In reality, the creation and development of venture ideas probably falls somewhere in between consumer needs and pure creative ideas, and the subsequent process displays a mix of behaviours and activities. Nonetheless, the two contrasted types of venture ideas suggest some kind of tension between customer-driven, more planned, analytical and linear processes on the one hand, and creative-idea-driven and more emergent, creative and iterative processes on the other.

7.3. BRINGING TOGETHER RESEARCH FINDINGS

This assessment builds on the insights collected from interpretations of design entrepreneur and external actor data. The discussion focuses on the differences and similarities between the data. As indicated above, it appears as if the entrepreneurial
processes of design entrepreneurs tend to be socially constructed. In that sense, their processes may involve trial and error in trying to match their competences in design with other actors’ business processes. This may cause challenges to design entrepreneurs since the industry appears to operate with a certain structure in order to minimize the risks associated with investments in production and business processes. This may indicate that design entrepreneurship is more about recursive, creative and even chaotic process behaviour, whereas external actors would at least prefer to operate their businesses in a less dynamic and more orderly fashion. These differing process views may cause tension and a gap between the processes of design entrepreneurs and external actors. As long as design entrepreneurs prefer to focus on product development, there remains a need to unite their processes with those of the external actors. Consequently, good collaboration ensures that all actors are able to make an impact on the development of venture ideas. This is necessary, since the development of feasible venture ideas typically requires competences and commitment from a range of professionals.

7.3.1. Emerging new ventures

The findings from this study suggest that design entrepreneurs’ venture ideas typically emerge from design-related starting points and observations. Product developers are mainly engaged with creating their own ideas, whereas service providers refer mainly to the creation and development of other agents’ venture ideas. In identifying ventures, design entrepreneurs generally feel that they possess an ability to see things that others do not observe (e.g. Cohen and Levinthal, 1990). Consequently, design entrepreneurs may stimulate idea generation by working creatively and through that identify a wider range of choices. Eventually, there is a need to justify and select appropriate venture ideas which have the potential for further development. The development focuses on developing form, functionality, production and/or distribution-related features. Sometimes, particularly designers with their own product create product-related venture ideas from their own starting points, mainly to satisfy their needs. Such idea-driven processes seldom build initially on business principles, but during the process the original focus may possibly change.

On the other hand, external actors’ new product development processes typically start from an identified customer-related demand (Fiet, 1996), or sometimes from an idea that is brought to them by others. For instance, Bhave (1994) and OPM (2006) suggest that venture ideas may derive from both customer demand and creative behaviour. However, external actors are somewhat reluctant towards venture ideas that have been stimulated by others (cf. Clarke & George, 2005; Durgee, 2006). This may not be so crucial in case of variation or imitation, but novel ideas should be generated with the guidance of relevant product developers, producers and marketing parties (cf. Verganti, 2003). Perhaps design entrepreneurs acknowledge this, but they are likely to enjoy working alone especially in the early phases of creating and generating new ideas. Similarly, external actors typically ask design entrepreneurs to join product development first after they have settled on a general development strategy, or at least after establishing guidelines for the process at hand. Therefore, one of the challenges in bringing together design entrepreneurs and external actors is related to the shaping of venture ideas.
Design entrepreneurs tend to generate ideas with design as a starting point, whereas external actors have demand conditions, production and marketing aspects as their starting points. This probably explains why it can be challenging and restrictive to match product development with commercial thinking, and it often results in many setbacks and regenerations of original design related ideas (Verganti 2003). Consequently, it is possible that unnecessary restrictions or unrealistic degrees of freedom are introduced at the very start of a product development process. Entrepreneurial process research partially ignores the roles of strategies and established guidelines, but there are a few exceptions. For instance, Lumpkin et al. (2001) discuss deliberate or unintended preparation associated with venture idea identification, and Greenberger and Sexton (1988) refer to vision as a catalyst for the venture creation process. On the other hand, Herron and Sapienza (1992) suggest that entrepreneurial aspiration is influenced by values, context, personality, and traits and skills, which in turn influence the search behaviour. The findings here suggest that these preceding activities will steer the unfolding of the subsequent process.

On occasion, external actors bring novel venture ideas to the market, but generally they prefer to make smaller variations or imitation when they develop new products. The creation of novel venture ideas involves the potential of unrecognizable risks, and such ideas are more challenging to fit within existing processes. In contrast with more ordinary product development, this would implicate that such processes involve more non-linearity and recursive cycles (cf. Adams, 2003; McCarthy et al., 2006) due to the lack of clear boundaries between product development, production, and marketing activities. For instance, Sarasvathy (2001) suggests that creative processes emerge by taking a set of means as given and focus on selecting between the possible effects that can be created with that set of means. In that sense, creativity and unpredictability can be assumed to be particularly high at the beginning of the product development process, when new thinking and novelty are emphasized. Although external actors are interested in novelty, they are likely to be reluctant towards overcoming the related obstacles and uncertainty.

Especially when venture ideas derive from design entrepreneurs, they need to convince others of the suitability of available production technology, distribution channels and market-related conditions. Otherwise, producers and marketers are less likely to form a collaboration and more likely to contribute only on terms of strict business reasoning. Venture ideas that are stimulated by design entrepreneurs may involve substantial new thinking and novelty, and so they are likely to face obstacles that result in recursive cycles. Thus, external actors generally regard the monetary return from externally generated products as uncertain. They actually emphasize that realisable venture ideas commonly derive from their consumer-related observations, which identifies customer needs and falls within production guidelines and financial viability (cf. Clarke & George, 2005).

Design entrepreneurs strive to prioritize design-related novelty, but they lack the means to cope with the uncertainty especially without the support from other actors. Nevertheless, there appears to be a middle ground, since design entrepreneurs can work with design-related novelty, which focuses more on product and usability features than strictly new technological solutions. In that sense, a venture can be novel with regard to its design, and at the same time applicable within some existing production and
marketing scheme (e.g. Calantone et al., 2006). In any case, regardless of the type or level of novelty, all venture ideas eventually need to match with available production and business factors. This may explain why external actors feel it to be safer to imitate previous creations and introduce new design features rather than try to identify or develop entirely new solutions (cf. Gaglio & Katz, 2001). Some previous entrepreneurship researchers would argue that this is not strictly speaking entrepreneurial behaviour, since it would require the identification of a new-means-end framework (e.g. Kirzner, 1973; Shane & Venkataraman, 2000).

7.3.2. Roles and positions of involved actors

The findings from this study propose that design entrepreneurs are generally open-minded, especially towards new trends and approaches. External actors emphasize the right kind of attitude as significant for venture idea development and for bringing new products to the market. This is important, since creativity requires constant stimulation, and design entrepreneurs need to express their emotions and interact to become motivated. Work tasks should be stimulating and involve creativity to be interesting and rewarding on the long run. In addition, creativity can to some extent be trained and enhanced, since professional competences and experience brings routine to the creative design process. Working with industrial design requires an aesthetic eye and knowledge regarding the culture, in which feelings and thinking models are present. Design entrepreneurs tend to be passionate individuals who get easily bored due to obstacles that hinder progression. They also commonly have a shortfall related to social interaction with business people outside their immediate field of attention. Again, experience brings capabilities for design entrepreneurs in self-expression, and in making others understand their intentions. In addition, they usually have a broad and solid basic education in industrial design but may lack formal business education and practical business experience. Design-related education provides means for working independently and gives confidence and a working routine, but does not enhance entrepreneurial skills.

As a result, it often becomes challenging for design entrepreneurs to locate trustful external actors, because their networks typically contain mostly likeminded creative individuals. Further, the organizations that they need to address are commonly located in a multidimensional resource space and competitive landscape which requires broad and solid design and business-related competences. Their limited networking and sales work prevents design entrepreneurs from entering negotiations and signing contracts with external actors, or at least limits their ability to unconditionally select business associates from a range of candidates. In particular, inexperienced design entrepreneurs must commonly settle on unfavourable conditions and compensations below the market level. Consequently, they often struggle with small expenses, modest incomes and moments of balancing their personal finances by working with tasks not associated with their profession.

Design entrepreneurs are often to some extent reluctant regarding working with commercial aspects. Instead, they want to work with design and have someone else take care of the production and marketing-related activities. This makes sense, since they probably do not have the time and necessary resources to take care of everything
themselves. Another explanation is that they consider it important to find social acceptance among colleagues rather than attain a business status or become acquainted with other social groups. A secure income would probably be valuable, but most design entrepreneurs define success rather via design-related recognition and acceptance. Due to their resource deficits, design entrepreneurs commonly need to address other actors when bringing their own product-related design to the market. It is often rather difficult for them to build the link between them, the producer, and distributors (Emden et al., 2006).

This may be a result of their inability to sell ideas or services, but may also stem from the differences between the commercial expectations of the actors involved (Gimeno et al., 1997). In contrast, external actors tend to determine success or failure based on economic indicators, rather than based on individual or design-related factors. External actors are likely to be rather goal-orientated (DeCesare, 2003; Hakatie & Ryynänen, 2007), and they expect others to adapt to their established processes (Hill & Johnson, 2003). In that sense, there are limited opportunities to insert proven design processes into the external actors’ best practices and operations (cf. Tennity, 2003; Sanchez, 2004). These factors are likely to reduce external actors’ likelihood for collaboration (Tennity, 2003). Therefore, design entrepreneurs must have competences in attaining market and business-related information since otherwise it is difficult to build relationships with other actors (cf. Bstieler, 2006). Design entrepreneurs are accepted only if their venture ideas, talents or resources are considered to contribute to the overall outcome.

For similar reasons, long term relationships can be preferable, especially if they are combined with working together with other actors as well. Industrial design, including design entrepreneurship, is a labour-intensive specialist profession, which builds on a trust relationship between the provider and purchaser. Trust is particularly central because industrial design builds on intangibles, which requires that the purchasing party is convinced of the suppliers’ competence to deliver (and vice versa). Consequently, business relations need to be rich in trust and normally built on the personal level, which naturally restricts business growth on the design entrepreneurs’ half (cf. Walton, 2003; DeCesare, 2003). In addition, time restrictions and intense competition makes income levels relatively unforeseeable and small.

As a result, instead of taking a co-ordinating role, design entrepreneurs often work as experts who perform certain and specific tasks in relation to the creation of venture ideas. Normally this is done in close association with other parts of the process to ensure suitability with available production technology, distribution channels and market-related conditions (Hill & Johnson, 2003). The role of the design entrepreneur is primarily to assist in developing existing ideas into viable products or concepts. Working as extensions of other organizations allows design entrepreneurs to avoid the necessity of creating and developing their own organizations (cf. Campbell, 1992). Instead, they are able to act entrepreneurially by creating new product-related ventures in association with other actors on the market. Their independence allows them to work with several projects simultaneously.

Due to their relatively small business size, design entrepreneurs are able to bundle customer demand, and in that sense overcome barriers and work with product
development more readily than their customers, or collaborative parties (e.g. Dean et al., 1998). However, companies often desire to remain free to select between ranges of industrial designers, which also forces design entrepreneurs to work with several companies and venture ideas simultaneously. Many companies decide to outsource design provision due to the limited internal demand for such services. It is arguable that industrial designers work with product development and innovation across various industries, and their activities are supported by both government and field-specific universities. This is in line with previous researchers, who indicate that in such conditions new venture formation is more common than otherwise (e.g. Schumpeter, 1934, 1942; Shane, 2001b). In addition, the necessary operations to innovate in association with industrial design do not normally raise significant barriers or requirements which would hinder small-firm entry (e.g. Acs & Audretsch, 1989b).

At one extreme, self-employment could be seen just as a means to allow design entrepreneurs to work with favoured projects. In a sense the institution and industry pushes them to become self-employed, since that is the preferred way to utilize the competences that industrial designers possess. Simultaneously, self-employment provides design entrepreneurs, at least in theory, with the freedom to work broadly with different kind of projects, products and companies. In reality, the competition for job opportunities is relatively harsh. In order to contribute to their own entrepreneurial processes, design entrepreneurs must create value for other actors on the market. However, it is by no means easy for them to connect with producers and marketers, who are generally not actively looking for new competences in generating and developing venture ideas. Simultaneously, design entrepreneurs may themselves be rather discriminating when selecting appropriate people and companies to collaborate with (cf. Emden et al. (2006). They often want to work with companies that are famous for their values towards design.

7.3.3. **Merging entrepreneurial and product development processes**

The findings from this study suggest that design entrepreneurs can be in charge of their own entrepreneurial processes as they simultaneously collaborate or are otherwise involved in others new product development processes. At best, design entrepreneurs function as amplifiers of their own entrepreneurial processes and others’ product development processes. This, however, requires that design entrepreneurs are acquainted with the relevant market and business specific information. Other actors also need to acknowledge the benefits from appointing or collaborating with design entrepreneurs, mainly in relation to product development. Therefore, design entrepreneurs must assure their potential collaborators that they have necessary competences and that they are aware of the risks involved in generating new ideas.

Typically, design entrepreneurs focus on product and service-related venture ideas, rather than the creation or development of entire new organizations or businesses. To operate this kind a business is often short-sighted, and so design entrepreneurs may lack long term plans for the future of their business. Instead, the focus might be on defining or stating more concrete carrier-related goals, based on what kind of tasks, concepts, or companies are preferable to work with in the future. The aim could be to build a professional design identity by working simultaneously with a range of projects,
sometimes across a broad scope of skills and businesses. Design entrepreneurs are, or intend to be, specialists who contribute with their particular input to specific parts or the aggregate product development process. The contribution is related to the beginning of the process. The input is either a specific venture idea, or more broadly the application of design-related competences. After completing the specific task, as any specialist, most design entrepreneurs prefer to move on and be inspired by new challenges.

Design entrepreneurs tend to trade their competences by selling design-related ideas or services to other actors (cf. Petersen et al., 2003; Chiu, 2002). In practice, this implies that they develop venture ideas by working with associated shapes, structures and functions. In compensation, they are given access to other actors’ production technology, marketing and distribution resources (cf. Coleman, 1990; Johansson, 2000). Although they have matching needs, external actors tend to be in control of larger parts of required resources (Tennity, 2003; Walton, 2003; Sanchez, 2006). These are typically needed to set up production and market-related exchange. In that sense, external actors are likely to become the drivers of product development processes (McCarthy et al., 2006). Design entrepreneurs, on the other hand, are normally in control of competences and resources that are valuable at the beginning of the process (Emden et al., 2006). In addition, they assist external actors in positioning their design in relation to the more aggregate design discourse (Verganti, 2003). Design entrepreneurs may also help external actors with their talents and resources to generate a competitive edge (Walton, 2003). Recently, it is becoming more common within the industry to purchase design services as concentrated entities, which include functions that support, in addition to product development, strategic and market-orientated activities (cf. Sanchez, 2006).

Product development and product design are central elements for design entrepreneurship. However, previous entrepreneurial process-related research is not particularly detailed concerning production, with the exception of Bhave (1994), who refers to production technology setup in association to organizational creation. Consequently, product development should result in products that are both technologically efficient and cost effective to produce and distribute on the market. In particular, external actors expect product development processes to progress in a certain pattern, from idea generation to production and eventually to marketing and sales. This kind of goal-orientated problem solving may result in variations of existing products, but novelty usually requires more creative problem solving (cf. Ingram et al., 2007). External actors tend to dislike random-like and nonlinear behaviour due to the involved risks and reduced predictability. As a result they may apply stage-gate models as a basis for their ISO-standardization of product development processes. Activities and decisions are bound to overlap, but at some point in the process the emphasis should move from product development to production and marketing-related activities. Product development is likely to occur on the terms of available production technology, and marketing and distribution channels due to the significant investments made by external actors.

Nevertheless, in reality, the product development captures more complexity due to the range of venture ideas and the necessity of involving different actors in the process. These actors are likely to have a mind of their own, which is visible as self-organizing behaviours and interdependent decision-making (cf. Chiu, 2002). The circumstances at
the beginning of the process tend to involve recursive cycles, especially when initial venture ideas derive from design entrepreneurs (cf. Suwa, 2000; Adams, 2003). In addition, the introduction of venture-related novelty appears to increase overlap and divergence between various activities. Later, the process may become more orderly, even if it continues to involve overlaps and feedback loops (Cooper et al., 2003). From a design entrepreneur perspective, there is an assumption of complex and diverse feedback processes between various activities and actors. This is something that previous researchers emphasize as faithful to the surrounding environment of entrepreneurial endeavours (e.g. Bhave, 1994; Davidsson, 2005). For instance, Takeuchi and Nonaka (1986) emphasize interaction throughout the product development process in order to increase development speed, consistency and integrity of the venture idea. Eventually, the design input results in prototypes, which require at least small adjustments before they are reasonable to produce. It is important to maintain the dialogue between product development, production and marketing since it may minimize surprises and contribute to improvements of the venture idea.

At its best, interaction can result in alteration of price structures and production processes without overlooking the design essentials of the product. Therefore, design entrepreneurs should not be treated as ordinary subcontractors, since their involvement throughout the process tends to improve outcomes (cf. Petersen et al., 2003; Chiu, 2002). In addition, a continuous interaction between design entrepreneurs and producers can potentially result in the development of new production means and extension of existing boundaries in production technology. Moreover, the involvement of marketing parties may assist in predicting demand and appropriate production volumes for new products. These kinds of insights are particularly important in cases involving novel products with relatively unpredictable demand conditions. Similarly, the involvement of marketers may assist producers in arranging their supply networks in accordance with demand conditions. Later, when the product supply interacts with the customer demand on the market, it potentially becomes easier to alter product design and production volumes based on both operational and strategic feedback (cf. Bhave, 1994).

7.3.4. Framing design entrepreneurship as a dual process

In this section, design entrepreneurship is conceptualized as a dual process, with the design entrepreneurs involved in operating entrepreneurial processes and interacting in product development processes. The underlying assumption is that self-employed designers are presumably creative professionals who do not prioritize their role as entrepreneurs. There are many reasons to question the capabilities of professionals and academics to orchestrate entrepreneurial processes. The review set forth in Chapter 2 indicates several reasons for industrial designers to become self-employed. It also emphasizes an increasing focus on collaboration and process thinking, which proposes that design entrepreneurs have the potential to manage both their own entrepreneurial processes and also contribute to others’ product development processes.

The lack of a conceptual framework to describe design entrepreneurship invites to propose one with the entrepreneurial process as the unit of analysis. The framework is developed based on the findings of this study. In order to make it a complete conceptual framework, it is complemented with absent links and activities, which are identified in
existing practices, as well as various design, new product development, and entrepreneurial process conceptualizations. Consequently, the conceptual framework is only an ideal version of design entrepreneurship, and must be tailored to suit particular needs or any specific case. What is more, the framework is designed to describe design entrepreneurship from a process perspective, thus it may not give explanation of the phenomenon on another level of analysis.

A broad range of influences appear meaningful when trying to describe design entrepreneurship from a process perspective. As a result, these influences are categorized under a number of concepts which signify the relationship between agents, novelty of venture ideas and the nature of the process. These concepts and possible relationships among them are depicted in Figure 16. As a conceptual framework, the process model of design entrepreneurship does not suggest a linear process with strict phases. Instead the activities are seen as important, but not obligatory, for nurturing design-related venture ideas into being. Consequently, the suggested framework can and should be adapted to suit the examined context.

As shown in the figure, design entrepreneurs are believed to interact with various external actors in shaping and bringing new venture ideas to the market place. Design entrepreneurs may act as reactive service providers who are appointed by producers or marketing parties to generate product-related ideas on their behalf. Reactivity typically allows design entrepreneurs to work with product development but also forces them to compete on pricing and restrict their creative freedom. On the other hand, design entrepreneurs may also act as proactive venture generators who bring their own ideas to the market alone or by appointing other actors to assist in the process. Design entrepreneurs are often trained, and they find pleasure in working creatively with idea generation. As a result, the generation of design entrepreneurs’ venture ideas may involve considerable novelty and creativity. Depending on the case, proactive behaviour may force design entrepreneurs to take considerable responsibility in organizing the entrepreneurial process. Another option is that design entrepreneurs bring their venture ideas to the market in collaboration, or by passing their venture ideas to others’ product development processes. Both reactive and pro-active behaviour require that external
actors are aware of the benefits to be derived from working with certain design entrepreneurs. This lays emphasis on communication skills and activity on the design entrepreneurs’ part. External actors typically get in touch only with well-known designers, whereas inexperienced design entrepreneurs must work their way to recognition and gain respect via references. External actors may achieve partner selection by thinking that it is safer not to appoint infamous designers. In that sense, selection may occur at the expense of creating competitive products based on sound collaboration (cf. Chiu, 2002; Petersen et al., 2003; Walton, 2003; Emden et al., 2006).

Initially, it can be easier to bridge the gap between external actors and design entrepreneurs by offering services to external actors instead of trying to offer venture ideas, at least at the beginning of the relationship. Or at least it may be sensible to offer a concept or a platform of products. This will increase the strategic flexibility and decrease the risks related to the development of only one single item (cf. Sanchez, 2004; Halman et al., 2003). Particularly external actors are keen to protect themselves from the risks involved in new ideas, since returns from such ventures are always to some extent uncertain. In long-term relationships external actors are probably more likely to become convinced also of proactive behaviour, but initially they may want to diminish the uncertainties in new working relations.

At the outset, external actors need to be introduced to the design entrepreneurs’ competences and expertise. Likewise, the design entrepreneurs need to become acquainted with the external actors’ procedures and technologies. It is particularly crucial for design entrepreneurs to receive a complete picture and to receive a comprehensive briefing since these insights will steer the development of the process (Bstieler, 2006). External actors’ may feel it to be safer to identify market demand and then find ways to satisfy it by taking into account available procedures, technologies and means of distribution. Ideas that are generated by design entrepreneurs, similarly to novel venture ideas, involve potential but also many challenges associated with their integration into the existing production and business models. Therefore, it might be wise to distinguish the sources of novelty, since design novelty is often easier to match with existing practices, than the novelty of technology (cf. Verganti, 2003).

Consequently, it is feasible to distinguish between two extremes of emerging venture ideas: those that derive from identified customer demand and are primarily identified by external actors; and those that derive from creative ideas and are primarily created by design entrepreneurs (cf. Bhave, 1994; OPM, 2006). Ideally, design should derive from consumer-related research that identifies needs and falls within manufacturing guidelines and financial viability (cf. Cooper et al., 2003; Clarke & George, 2005). Creative ideas may also respond to customer demand, but typically they are inspired more by a given material world, individual preferences, or observation conducted by the design entrepreneurs. In particular, proactive design may start more creatively at the beginning of the process, but sooner or later production and business-related matters increase in importance (cf. Adams, 2003). Reactive design is commonly not allowed the chaotic-like freedom of creativity since then the design entrepreneurs work more closely with the assigners. This normally necessities a stricter production and business mindset right from the start, even if creativity were to be encouraged within the boundaries of the process (cf. Durgee, 2006).
In addition, it is likely that external actors will appoint design entrepreneurs after they have an initial venture idea and have demonstrated some strategies for its development. In that sense, the role of design entrepreneurs continues to remain more as an assistant for product development, rather than a strategic collaborative partner (Tennity, 2003). Therefore, design entrepreneurs have limited opportunities to insert proven design processes into the clients’ best practices and operations (Sanchez, 2004). Nevertheless, it is important for all parties to understand the consequences of the usage of, for instance, stage-gate models as best practice in product development. The traditional assumption is that stage-like integration of functions improves co-ordination and communication in the process (Cooper et al. 2003). However, it may also restrict creative behaviour and the capturing of new venture-related ideas, as well as means for production and business. In that sense, design entrepreneurs could persuade others to see product development as a series of small and large recursive cycles which represent project setbacks and restarts. In reality, activities tend to be multiple, concurrent, and divergent, and, moreover, the process includes both feedback and feed-forward loops (Suwa et al., 2000). For instance, the involvement of several different actors will in reality increase complexity due to the self-organizing behaviours and interdependent decision-making of the involved agents (Chiu, 2002).

Idea generation can involve time-based pressure and goal-directed problem solving, which implies that linear models are likely to be emphasized (cf. Ingram et al., 2007). This may not be a significant problem when product development is carried out in close interaction with the customers, or the venture ideas are more of an incremental or sustaining nature (cf. McCarthy et al., 2006; Calantone et al., 2006). Similarly, it may not be a problem in the later phases of the process, when trying to match such venture ideas with available production technology and business models. However, it may prevent creative behaviour from occurring especially at the start, but also throughout the duration of the process (cf. Adams, 2003). It may also steer the product development process in a certain and given direction. In addition, it will also limit chances of capturing and reflecting information that derives from overlaps, feedback loops, and resulting behaviours that oppose reductionism and linear analysis (McCarthy et al., 2006). Therefore, it is important to realize that strategies manifested at the outset will steer the understanding of meanings and languages throughout the process (Verganti, 2003).

Perhaps it makes sense to depict product development as a complex adaptive process, where idea generation, production and marketing interact by combining linear, recursive and chaotic processes (McCarthy et al., 2006). Initial idea generation tends to be to some extent disorderly or even chaotic. In that sense, the process appears to begin in an informal and fluid state, and move to one that ultimately becomes more formal and rigid (cf. Adams, 2003). Initially, the boundaries between activities are less clear, especially when venture ideas derive from design entrepreneurs’ proactive behaviour. In such cases, idea generation may build on substantial ideation, creativity and fuzziness, all of which characterize novelty (Kim & Wilemon, 2002). One could argue that proactively stimulated ideas may face more obstacles in combining various activities and actors. Despite the origins of venture ideas, they should all become valuable for the customers and involved actors. However, the development of innovative venture ideas in particular requires that decisions are made during the process, more interactively between all
involved actors. This kind of continuous decision-making is time consuming and challenging, since it requires that venture ideas are developed throughout the process. At some point, there is a need to match idea generation with production and marketing processes. The decision to realize a venture idea does not have to be distinct, or at least it may be to some extent prolonged in the process (cf. Venkataraman, 1997). Eventually, it becomes necessary to create new or address available production technologies and business models in order to reach the market.

7.3.5. **Openness towards other representations**

This section considers the impact from implementing theoretical representations that I have chosen to omit in forming the interpretations and conclusions underlying this study. Consequently, I want to show openness to other representations than those favoured by me as an interpreter. In the following assessment, I have chosen to address some process perspectives identified by Steyaert (2007) that have mainly been disregarded in my line of interpretation. According to Steyaert (2007), a creative process view brings entrepreneurship away from methodological individualism and closer to a social ontology of relatedness. As presented in Chapter 3, earlier attempts to describe entrepreneurial processes are often equilibrium-bound (e.g. Shane, 2003), whereas recent theorizing (e.g. Sarasvathy et al. 2003) emphasizes a creative process view. Sarasvathy et al. (2003) build their assumptions by grounding the creative process view in pragmatism. Steyaert (2007) extends this assumption by arguing that it can also be related to and enriched by many more perspectives, such as those reviewed below. As a result, the focus here is on the following perspectives: complexity and chaos theory, the dialogical offspring of social constructionist approaches, and the actor-network theory.

Concerning **complexity and chaos theory**, Lichtenstein (2000) argues that complexity research will provide a powerful approach and useful tool for understanding why and how order emerges in groups, project ventures, organizations, and industries. The rich narratives by which we learn about all the ins, outs, ups, and downs of start-up phase entrepreneurial activities are locality, time, and researcher-specific. Therefore, McKelvey (2004) argues in favour of complexity science, since it focuses on order creation, which makes it a good platform to explain early order creation in the initial start-up phase of entrepreneurial ventures. Fuller and Moran (2000) suggest that a complexity perspective is particularly suitable for explaining the behaviour of agent-based systems that are open, dynamic, evolving, and sufficiently complex to be capable of “emergent” behaviour. The role of adaptive agents (owner-managers) is critical here, as are their connections (relationships) with other adaptive agents within a networked “community.” For instance, Lichtenstein et al. (2007) use theory and methods from complexity science to examine dynamic patterns among activities undertaken by nascent entrepreneurs. Their study reveals the value of using complexity science to explain and study the new venture creation process, since complexity is the only science dedicated to a holistic exploration of emergence and complexity. In this study, using a complexity approach would have emphasized the interconnectivity of activities and agents, and it would also have exposed rapid changes in the emergence and development of the processes examined.
However, according to Steyaert (2007) the use of complexity and chaos theory in entrepreneurship studies is quite recent. The emphasis within the field continues to reside primarily on conceptualization and modelling. In one of the first applications, Bygrave (1989b) argues that starting a new venture is not a smooth and continuous process. It is rather a disjointed, discontinuous, and unique event, which may involve a micro level venture (e.g. product or service) or a mega venture (entire business). For this study, chaos theory offers an important message, which is that nonlinear systems are potentially fraught with problems, especially if we try to make predictions about their future behaviour. Entrepreneurship in general and especially the creation and development of new ventures are likely to involve activities that evolve in a non-linear and interdependent way (Steyaert, 2007). As a result, the interpretations in this study should not focus on isolated actions and activities, but rather emphasize the recursive dynamics between external and internal complexity associated with the entrepreneurial and new product development processes. More precisely, as emphasized by McKelvey (2004), entrepreneurship should be studied and modelled as a non-linear outcome which results from phase transitions caused by adaptive tensions and processes of positive feedback.

Fuller and Moran (2000) investigate how complexity theory can inform an understanding of small firms. In order to grasp the associated complexity, they conduct interactive modelling between the researcher and small business owner (as decision maker). In this study, the application of a similar method would probably have resulted in longitudinal research, by focusing on the interaction between design entrepreneurs and various stakeholders associated with their entrepreneurial processes. This research approach would probably have explained the relationships on a much deeper level, by focusing both on personal characteristics and the business orientation of the involved agents. It would definitely have deepened my understanding of the processes of design entrepreneurship and the effect of the individual agent on them. Another interesting research approach employed by Fuller and Morgan (2000) is that in which they examine small firm stakeholder relationships as a grounded typology of relationships. In a similar manner, I could have identified via a qualitative study various approaches for the progression of entrepreneurial processes, which would then have been used to categorize individual firms in a larger sample. In another study, Fuller and Morgan (2000) build various assumptions about the interconnections between different actors and the relative strengths of forces and relationships. Consequently, interpretation from a complexity perspective is among other things concerned with the agents’ perspective of the “system” in which they operate and to what extent this perspective influences or guides their “strategy”. They are also longitudinal to their character, which provides a descriptive sense of change and a deeper insight to the complexity of the phenomenon.

Furthermore, Steyaert (2007) states that an increasing number of researchers apply some form of a social constructionist approach. However, the landscape of such approaches remains multi-faceted and, for instance, Fletcher (2006) tries to create some order by distinguishing between various approaches. Here the focus is on the enactment of the entrepreneurial process as a process of social construction. Therefore, entrepreneurship is conceptualized through a myriad of linguistic forms and processes (e.g. metaphors, storytelling and discourses), which either focus on narratives or discourse analysis. For instance, Gartner (2007) suggests that narrative approaches and narrative methodologies
are reflexive, which implies that in the process of interpreting stories, the researcher also reflects upon their own stories of how and why the research is conducted. A narrative perspective on entrepreneurship assumes that new ventures are constructed through countless stories that continually repeat, contradict and extend each other. On the other hand, a discursive study of entrepreneurship often takes a critical stance towards entrepreneurship studies, claiming that it seems to act as a value-free endeavour (perhaps either gender-free or culture-free). Moreover, Fletcher (2006) argues that opportunity formation is relationally and communally constituted, which is an insight that is not recognized in descriptive or linear process models of opportunity recognition. Therefore, processes of social construction are better suited to explain what goes on as people relate to various mental models, heuristics, life experiences, biographies and knowledge of (or gaps in) particular consumer patterns to enact business opportunities. However, Fletcher (2006) points out that utilizing a social constructionist approach means that the researcher moves beyond examining individual opportunity-seeking processes to consider the relation between peoples’ actions and their cultural, societal, economic and political situational context.

In that sense, I could have examined the entrepreneurial process by letting agents tell their stories and interpret their underlying meanings. This approach would have enhanced the contextual and embedded understanding of the entrepreneurial process, even if the narratives would then have been also influenced by the given time period and surrounding environmental conditions. In that sense, the entrepreneurial process is regarded as dramatically enacted in social interaction. For instance, Downing (2005) suggests that the narrative and dramatic dynamics of interactions selectively and creatively produce and transform the roles and resources of a given order into a new social reality. On the other hand, Hjort (2007), argues for the need to broaden the conventional focus on opportunity recognition/evaluation/exploitation and the resource-based view to include the time of venture creation. Following his guidelines of applying an opportunity-creative narrative approach, I would have complemented and challenged the dominance of the managerial orientation in entrepreneurship research. Instead of relying on a preliminary set framework, I should have constructed data based on the narratives of selected agents, since it would have offered another scope and set of concepts for my interpretations. Consequently, I would most likely have reached different kind of theoretical insight, if I had examined narratives associated with relationally and communally constituted creation and development of new ventures. Although I have challenged linear, individualistic and descriptive models of opportunity discovery, this approach would have further helped me to account for the construction of social reality.

Another method would have stemmed from the actor-network theory, which prioritizes assumptions related to a materialist ontology, since it turns to non-human agents (Steyaert (2007). However, until now these approaches have only been applied in a limited manner in entrepreneurship. The actor-network theory emphasizes the social process. Instead of taking the social for granted, the approach reconstructs it as a patterned network of heterogeneous materials, including humans as well as almost any kind of physical objects. The process in itself is kept together by active processes of ordering. Despite some of their criticism, Whittle and Spicer (2008) find agent-network theory to be a useful method for understanding how actors are enrolled, how truth
claims are constructed and how objects and artefacts enable organized action. On the other hand, Cooper (2005) explains that the act of relating is analysed as a constitutive feature of human agency. In that sense, entrepreneurship could be described as a relational process which brings together an assortment of elements into a network of relations through material transformation. Relating is viewed as the continuous work of connecting and disconnecting in a fluctuating network of existential events. Consequently, in this study, I could have chosen to examine the processes by assuming a materialist ontology. This would have implied that I reconstitute the entrepreneurial process as a narrative, and document the continuous assembling, connecting and dissociating of the agents and the kind of rhetoric, narratives and discourses that were mobilized and came to prevail. Such an approach would have brought an entirely new dimension to the entrepreneurial process by putting less emphasis on the human and giving more space for other materials that form the entrepreneurial process. Entrepreneurship is often described as a process of bringing together various kinds of resources, but in reality empirical research focuses often on examining entrepreneurship via human (inter)action, as in this study.
8 CONCLUDING DISCUSSION

The aim of this chapter is to bring the present study to a close. It starts by briefly returning to the research purpose and questions (8.1), and introduces the contribution objectives based on the findings of this study (8.2). The following two sections continue with presenting theoretical contributions and practical implications (8.3 and 8.3), and the section following those presents a critical overview of the applied methodology and research process underlying this study (8.4). Finally, the chapter finishes with suggesting some avenues for further research (8.5).

8.1. REVISITING THE RESEARCH PURPOSE

This study was interested in building an understanding of entrepreneurial processes among Finnish design entrepreneurs. More specifically, this study strove to determine what design entrepreneurs do when they create new ventures, how venture ideas are identified, and how the processes are organized to bring such ideas to the market in the given industrial context. In contemporary times, when the interest in the creative class is peaking, the research and business communities really need more insight of the kind that this study provided, namely how professionals may contribute to their own and others’ entrepreneurial processes. However, there were many reasons to question the capabilities of design entrepreneurs to orchestrate entrepreneurial processes. The lack of a conceptual framework to describe design entrepreneurship invited the proposing of one with the entrepreneurial process as the unit of analysis. This study sought to find answers to the following three questions, which were originally presented in Chapter 1:

1. How do design entrepreneurs craft their venturing career?
2. How do design entrepreneurs enact their own entrepreneurial career and co-construct that of others?
3. How are entrepreneurial processes initiated by design entrepreneurs jointly organized with external actors?

The first question sought to address the current gaps in empirical research, by increasing the understanding of the sources and means for emerging venture ideas, as well as the role of human behaviour for the entrepreneurial process. The findings from this study suggest that design entrepreneurs’ venture ideas typically emerge from design-related starting points and observations. Product developers are mainly engaged with creating their own ideas, whereas service providers refer mainly to the creation and development of other agents’ venture ideas. Design entrepreneurs may stimulate idea generation by working creatively, and in that way identify a wider range of choices. Eventually, there is the need to justify and select appropriate venture ideas which have the potential for further development. The development focuses on developing form, functionality, production and/or distribution-related features. In contrast to design entrepreneurs, external actors commonly emphasize customer demand as the primary source for new venture ideas.
The second question sought to address the assumption that design entrepreneurs are somehow unique as entrepreneurs due to their dual process role as entrepreneurs and agents in new product development processes. The findings from this study propose that design entrepreneurs are generally open-minded, especially towards new trends and approaches. External actors emphasize the right kind of attitude as being significant for venture idea development and for bringing new products to the market. This is important, since creativity requires constant stimulation, and so design entrepreneurs need to express their emotions and interact to become motivated.

The third question sought to increase our understanding concerning the organization of entrepreneurial processes by focusing on the interaction between design entrepreneurs and external actors’ processes. The findings from this study suggest that design entrepreneurs can be in charge of their own entrepreneurial processes as they simultaneously collaborate or are involved in others’ new product development processes. This however, requires that design entrepreneurs are acquainted with the relevant market and business-specific information. Other actors also need to acknowledge the benefits accruing from appointing or collaborating with design entrepreneurs, mainly in relation to product development. Therefore, design entrepreneurs must ensure that they have necessary competences and that they are aware of the risks involved in generating new ideas.

Consequently, I am confident that this study has accomplished its original aim, both by finding answers to the stated questions and by reaching the contribution objectives that are presented in the next sub-section. Previous research on entrepreneurial processes remains mostly conceptual, and the small number of empirical studies focuses often on some particular phase of the process, rather than trying to grasp the aggregate process and its connection with other agents’ processes. The interpretations and findings from this study provide a comprehensive theoretical discussion based on entrepreneurial process, industrial design and new product development literature.

8.2. CONTRIBUTIONS TO ENTREPRENEURIAL PROCESS RESEARCH

By raising the specific research questions put forth above, this study made four major contributions to the specific field of research:

First of all, this study made a contribution by bringing together, structuring a framework and carrying out the interpretations by considering the explanatory power of previous entrepreneurial process research in this empirical context.

Secondly, this study contributed to entrepreneurial process research by addressing the initiation and development of entrepreneurial processes. The aim was to contribute by means of a comprehensive explanation of the relation between process activities and agents. The explanation built on analyzing and comparing previous process models with each other, and with the data underlying this study.

Thirdly, this study contributed to entrepreneurship process research by including the involvement of a range of external actors in the entrepreneurial process. It was seen as important to include external actors because they may explain why previous entrepreneurial process models were not capturing the interaction between activities and agents associated with entrepreneurial processes.
Fourthly, this study contributed to entrepreneurship research by introducing industrial design, and more specifically design entrepreneurship, as a new field of entrepreneurship research.

Before discussing the specific contributions from this study, it is important to recall that these contributions are produced as an outcome of the selected methodology. Another research approach would most likely have resulted in another set of contribution objectives (cf. Johannisson, 2005).

Concerning the first contribution, the extensive literature review underlying this study identified no other literature reviews that to the same extent, and as systematically, categorizes and compares previous entrepreneurial process research and conceptual models. In addition, the literature review discovered no previous empirical research that identifies and examines the explanatory power of several process models on the same research material. Consequently, this study categorized previous entrepreneurial process models according to two major streams of process-related research, which is line with suggestions made by previous researchers (e.g. Bruyat & Fayolle, 2002; Davidsson, 2003, 2004). Despite some conflicting elements, the assumption was that these two schools were adequate alone or in combination to explain process change and development (e.g. Van de Ven & Poole, 1995; Sarasvathy et al., 2003). The analysis was completed to receive an impression of the explanatory power of these previous process models in this empirical context by confronting them with the interview data: to confirm or contradict, qualify or extend their concepts. Previous attempts to describe entrepreneurial processes were not found to be overly extensive, but they seemed quite capable of explaining entrepreneurship in accordance with their original intentions. One of the few empirically-conceptualized models was presented by Bhave (1994). This model captured identification and development of venture ideas as well as the commitment to exploit, and taking ideas to the market.

Following this, taking an entrepreneurial opportunity perspective implied that the unit of analysis was primarily the individual entrepreneur. Only one conceptual model introduced the possibility of having the process itself as a unit of analysis, as was the case in this study (i.e. Shane, 2003). In addition, the primary cycles and motors of change appeared to be the entrepreneurial acts, decision-making, and entrepreneurial alertness. Other cycles or motors of change were the identification of venture ideas, entrepreneurial creativity and social networking. The opportunity-based activities were grouped into three different categories: search, identification and development, and exploitation. These were felt to explain the early identification activities associated with the analysed entrepreneurial processes particularly well. Furthermore, taking an entrepreneurial behavioural perspective implied that the unit of analysis was primarily the individual and/or the venture being created. It was also possible to focus on the industry, the network, or the environmental context of an organization as the unit of analysis. The primary cycle and motor of change appeared to be entrepreneurial behaviour in new venture creation. Other cycles and motors of change were personal characteristics, organizational characteristics, and the environment. The behaviour-based activities were grouped into three different categories: pre-venture activities, venture creation activities and post-venture creation activities. The categorization was justified because it gave a unified structure for comparison and interpretation purposes,
and it was felt to explain activities associated with commercial venture ideas particularly well.

In line with previous research and based on results from this study, entrepreneurship is seen as a process that includes various activities carried out by a set of agents. However, in opposition to some previous research, for instance, as identified by Van der Veen and Wakkee (2002), these activities are not primarily pursued by one individual. Instead, activities are often pursued in interaction with various actors throughout the process. As pointed out by Shane (2003), ground-breaking identification (i.e. discovery) is the only part of the process that may involve only one individual, since development and commercialisation typically involves other actors, too. Human behaviour plays a central role in any kind of new venture creation (e.g. Casson, 1982), including the creation of new organizations (e.g. Gartner, 1985). Previous research that explains entrepreneurship as a process typically identifies the influence from the surrounding environment but ignores the direct involvement of customers, suppliers or collaborators in advancing entrepreneurial or product development processes. Instead the focus is often on the various reasons for why some individuals are more likely than others to identify, collect resources, make necessary decisions and start commercializing venture ideas.

Concerning the second contribution, this study addressed the entrepreneurial process in order to explain the relation between the seemingly divergent process activities and elements. Interpreting and comparing research findings with previous research suggest that one way to explain the interrelation between activities and elements is to refer to the continuous actions and decisions taken by various actors throughout the duration of the process. This makes the process more complex and recursive in its nature, since the involved agents’ decision-making abilities result in self-determination and exploration at multiple levels within the system (cf. McCarthy et al., 2006). In addition, the research findings suggest that the progression of an entrepreneurial or product development process becomes less predictable and more vigorous when initial venture ideas are somehow novel, and their future outcomes are thus either challenging or even impossible to estimate. Therefore, it becomes necessary for the idea to emerge in a step-wise manner and sometimes in a random order, by identifying, developing, and at least partially assessing the unknown (and sometimes unknowable) market potential. Particularly, when design entrepreneurs initiate their entrepreneurial processes, they often lack a clear focus and may commence from more or less creative expression, and it is thus possible that the process begins without a clear goal or business orientation. Such an advancement could be explained as occurring via an ongoing and sometimes unidentifiable interaction between the identification of new means (smaller or larger), and sense-making of these means, by trialling their validity either creatively or commercially.

If external actors become involved or the process actually originates from them, it typically proceeds more methodically from identifying customer demand to developing and bringing product or service-related venture ideas to the market. In that case, ground-breaking venture ideas are potentially less likely than when processes emerge from creativity and are subsequently matched with market-related needs. For instance, Bhave (1994) identifies both externally-stimulated and internally-stimulated venture ideas. The findings to some extent support previous entrepreneurship research which suggests that an entrepreneurial process typically involves a concrete decision to exploit (e.g.
Venkataraman, 1997). This particular decision may involve some form of substantial investment and irreversible action towards commitment to physical creation. However, the findings from this study indicate that sometimes these decisions can be prolonged and that development activities are likely to continue even after this potentially major decision has been made. For some reason, entrepreneurship literature often focuses primarily on the major decision but puts less emphasis on smaller decisions and associated interactions. These again are discussed more in other fields of research, for instance, product development literature is more concrete concerning the process of taking venture ideas towards market-related utilization (cf. McCarthy et al., 2006). Similarly, innovation-related research could help entrepreneur researchers to understand associated decision-making and interaction between identification and exploitation (e.g. Clark & Guy, 1997; Cooper, 2000).

Consequently, the ongoing interaction could be explained by assuming that there exist complex and diverse feedback processes between various activities and actors (e.g. Takeuchi & Nonaka, 1986), which is something that previous entrepreneurship researchers seem to support (e.g. Bhave, 1994; Davidsson, 2005). Consequently, the entrepreneurial process is assumed to be influenced by the entrepreneurs’ relationships with customers, suppliers and collaborators, as well as their potentially inadequate production or promotion-related resources, which forces them to interact with various external actors (cf. Clark & Guy, 1997). Consequently, it became important to consider the selection and involvement of various agents, related both to entrepreneurial and product development processes (e.g. Verganti 2003; Emden et al., 2006). Overall, the research findings are rich on material concerning interaction between various actors and their influence on the advancement of both design entrepreneurs’ entrepreneurial processes and external actors’ product development processes.

Moreover, concerning the third contribution, findings from this study emphasize that entrepreneurial processes are influenced by the surrounding environment. For instance, external actors may carry out, or be involved in, many associated activities and decisions. This finding is in line with entrepreneurship-related research that emphasizes networking and various resources (e.g. Larson & Starr, 1993; Donckels & Lambrecht, 1997; Johannisson, 2000). The empirical material clearly suggests that at least design entrepreneurs commonly need collaborative parties to assist with the production and sales of venture ideas. Although many of the examined empirical models are quite relaxed on the modes for organizing entrepreneurial venture ideas, they commonly do not elaborate the practical implications in any greater detail. Consequently, existing entrepreneurial models lack an important feature which would explain the influence of external actors in entrepreneurial processes. One of the challenges with taking into consideration external actors is the mere definition of an entrepreneurial process. For instance, whose process is it, if it involves different actors with varying degrees of involvement? An easy answer would be the process initiator, but the original process initiator is not always identifiable, or different parties experience the initiation from their own starting points. Another possibility is that the one who takes the product to market is seen as the primary process vendor, but in that case most processes would be the property of various distributors. Instead, in this study, the interpretation is that each involved actor may feel a process to be their own even if they do not carry out all the activities in fulfilling it. The level of involvement and outcomes varies, but still each
actor influences the advancement and expects to receive some form of compensation for their input. Consequently, design entrepreneurship can be described as a dual process: design entrepreneurs can simultaneously be in charge of their entrepreneurial processes and collaborate or be involved in others’ product development processes.

Previous entrepreneurial process research often ignores the origins of resources, cooperation and collaboration between various parties. For instance, within sociology, Bendor et al. (1996) makes a conceptual contribution concerning co-operation under uncertainty. On the other hand, Berthon and Hulbert (1999) argue from a strategic management perspective that market orientation and innovation orientation are two distinct constructs which can interact in an assisting or restraining fashion. Consequently, organizations are assumed to choose between isolation, following others, shaping the market, or interacting (collaborating) with other actors (Berthon & Hulbert, 1999). Within entrepreneurship research, for instance, Chrisman and McMullan (2000) have examined how outside assistance might influence new venture performance. Moreover, Golden and Dollinger (1993) present an explanatory model concerning co-operative alliances and competitive strategies in small manufacturing firms, which is somewhat in line with Human and Provan (1997), who explain the structure and outcomes from small firm strategic manufacturing networks. However, co-operative arrangements are more common in ventures with experienced entrepreneurs rather than in those with inexperienced entrepreneurs. This is likely to occur because experienced entrepreneurs are more knowledgeable about which skills require augmentation through co-operative arrangements (Shepherd et al., 2000).

Finally, concerning the fourth contribution, industrial design and, more specifically, design entrepreneurship, were introduced as a new field of entrepreneurship research. The intention of this study was to shed light on the complex and multifaceted process of entrepreneurship associated with industrial design in the Finnish context. The industry analysis identified an increasing interest among researchers in studying the economic activity and distinctiveness of creative industries (e.g. OPM, 2006), and also in studying business activities in association with industrial design (e.g. Piira & Järvinen, 2002; Salimäki et al., 2004). In addition, reviewing international literature concerning design novelty (e.g. Verganti, 2003; Calantone et al., 2006), design collaboration (e.g. Tennity, 2003; Emden et al., 2006), and product development processes (e.g. McCarthy, 2006 et al., 2006; Ingram et al., 2007) brought many interesting associations between entrepreneurship and industrial-design-related research venues. However, the limited number of design entrepreneurship-related studies in Finland and elsewhere focus primarily on industrial design agencies, which offer design services to industrial client companies. For instance, the industry analysis found no sufficient statistics or previous studies that consider the creation and development of their own business ideas among industrial designers. Instead, the major stream of research that covers associated issues was focusing primarily on handcrafting (e.g. Luutonen & Äyväri, 2002). As a result, the largest challenge was not to define how design of their own products among design entrepreneurs differs from handcrafting or industrial design service provision, but to find appropriate information on such activities in Finland. According to Kalhama (2007), there are no previous studies from Finland that deal with design entrepreneurs’ own product design. Instead, previous Finnish industrial-design-related business
research has focused on design service provision, in association with industrial design agencies (e.g. Piira & Järvinen, 2002; Salimäki et al., 2004).

8.3. PRACTICAL IMPLICATIONS FOR DESIGN ENTREPRENEURSHIP

This study and its interpretations have several important implications. The aim of this section is to present some implications for entrepreneurs, external actors, and advisors.

How can design entrepreneurs improve their abilities to match activities and external actors to advance their entrepreneurial processes? The starting point for any design entrepreneur should be some kind of market demand, since without sales their venture ideas may as well be classified as art. If the design entrepreneur wants to experiment with creative ideas, there should be another source of income to support this typically uncertain and extensive process. For instance, design entrepreneurs may sell their own competence as a service or be externally employed, and then develop their own venture ideas during their spare time. It is possible for design entrepreneurs to focus on operating solely with idea generation, but this may imply reduced control over the process. Other actors have a mind of their own and are likely to steer the process with their behaviour and decisions. It is not uncommon that entrepreneurs with special competences or their own venture ideas would like to focus on working solely within idea generation. In that sense, business and production routines can be seen as less interesting to them than to work with creating new emerging venture ideas. Perhaps this has to do with the creative mindset that is typical for design entrepreneurs. Another explanation valid for some is the limited experience or competence associated with carrying out production and business activities. In any case, the design entrepreneurs’ limited available time and other resources suggest that it easily becomes a challenge to manage the entrepreneurial process without the intervention of other actors.

As a result, entrepreneurs typically need to interact with others on the market (e.g. customers, suppliers and collaborators). It is important for them to understand other actors’ demands, and be capable of explaining how they can satisfy their needs. In that sense, entrepreneurs benefit from having an understanding of production and business logic, and also from an ability to estimate process-related costs and timelines. In addition, it is important to build the relationship on competence, flexibility and continuous interaction. It is also important to deliver what is expected within the given timeframe. The relationship should be built over time, by learning from external actors the priorities concerning production means, venture ideas and target markets. The aim should be to reduce feelings of uncertainty, since typically the creation of new ventures involves unknown factors. For instance, external actors may find it more certain to proceed by following some given milestones instead of entering a product development process without clear objectives. Particularly in business negotiations, entrepreneurs tend to have less power than the opposite party. Sometimes the contracts are made by the hour, on a fixed cost basis, or purely based on royalties from sold items. There is a need to stay tough, but also to be a realist concerning reasonable compensation levels.

However, in addition to the entrepreneurs’ competences, the venture ideas also need to be realistic in terms of available production technology and expected market demand. In addition, the venture ideas should preferably suit some existing production and
distribution system. Otherwise, it easily becomes challenging and expensive to turn the initial ideas into reasonable business concepts and market-orientated venture ideas. Therefore, design entrepreneurs should know from the start exactly what kind of production technology is available, and, moreover, the cost structure for producing and launching a specific venture idea. In addition, they need to consider the future demand and precisely how the venture idea will reach the markets. Instead of prioritizing the development of novel venture ideas, the focus should also be on ensuring the availability of cost-efficient production and marketing functions. With the overall costs and the expected demand in mind, it becomes easier to set an appropriate price for the venture idea. In general, external actors are not actively looking for new venture ideas. Therefore, it is commonly the entrepreneurs’ task to locate, contact and convince suitable actors of the venture idea’s validity, and the potential (monetary) benefits of becoming involved in the process. Consequently, it may be less demanding for entrepreneurs to promote their competences if others may purchase these as a service.

Design entrepreneurship can take different process forms: the entrepreneur takes care of the majority of involved activities, the entrepreneur decides to outsource parts of the process, or the entrepreneur contributes to a product development process as a service provider. In that sense, they might be able to externalize larger parts, for instance, of their production and marketing efforts, but they will still be forced to take care of some self-promotion and business administration.

How can external actors improve their own processes by working together with entrepreneurs that offer services and/or product related ideas to them? External actors tend to make substantial investments in, for instance, production technology and the creation of sufficient distribution networks. As a result, they are bound to behave in a relatively risk-aversive fashion, by ensuring that their investments will yield a profitable income. Therefore, it is sensible that they prioritize profitability, rather than the number of new novel venture ideas, business concepts, or innovative means of production or distribution. Innovation can be interesting for them, but in practice the emphasis is not primarily on developing novel venture ideas. Instead, external actors may focus on reproducing and imitating their own and their competitors’ stock of existing concepts. In any case, it is central for them to be effective in identifying, developing and introducing new venture ideas. As a result, many external actors actively search for and identify venture ideas mainly in their existing customer base. However, they commonly either lack competence or prefer outside assistance in developing these venture ideas into viable business concepts and products. Typically, external actors feel that they do not need assistance in identifying ideas, but more often in association with developing demand-driven ideas into producible business concepts. This implies that entrepreneurs are expected to assist in finalizing selected venture ideas, rather than in making strategic decisions or introducing new or alternative specifications.

Consequently, the strategic boundaries of product development are already set earlier, and it thus becomes challenging for the design entrepreneur to influence the flow of the process. If external actors want to benefit from applying external expertise in their product development processes, then the design entrepreneurs should already be involved before initial venture ideas are identified, or sought after. A long-term commitment between various actors would increase the likelihood of creating venture ideas with potential, development of these into viable business concepts, and efficient
production and distribution on the markets. It can be valuable for external actors to involve service-providing design entrepreneurs in their processes, since outsiders may capture something that is overseen or taken for granted by insiders. In addition, expertise in association with new venture creation could assist in identifying and developing venture ideas into viable business concepts.

External actors are bound to ignore the potential of venture ideas among design entrepreneurs that develop their own ideas. The current problem seems to be that external actors do not offer them sufficient insight into their processes, or that the design entrepreneurs are not able to capture its meaning. In any case, sufficient communication would assist both parties in developing production-efficient and distributable venture ideas. It is essential that external actors (e.g. producers and marketers) more readily allow design entrepreneurs to become acquainted with their production technology, distribution practices and business logic. Then, it would become possible for design entrepreneurs to target their creative processes to suit the production and business processes of specific actors. Currently, it appears as if a large number of good venture ideas and resources are being wasted when design entrepreneurs contact potential suppliers, customers or collaborators with venture ideas that do not suit available production or business procedures. External actors would save their resources and receive more business possibilities if they were to develop a form of instrument that would connect venture idea developers with their product development processes. For instance, Nokia offers open access for product developers to create software solutions applicable to their mobile phones. On the other hand, Lego allows anyone to develop toys via the internet (www.mindstorms.com), with the potential for earning royalties in the future. Similarly, other external actors could consider how to benefit from letting product developers in on their production and business logic. Naturally, this would require a new way of thinking and taking care of associated uncertainty, but the outcome could be promising business-wise. In any case, there are few winners if producers, marketers and product developers continue to engender the match between idea generation and other areas of product development processes via trial and error.

**How can advisors assist in matching the external actors with design entrepreneurs in order to advance collaboration?** Entrepreneurs with specific competences tend to be professionals in their own right, but may lack both the competence and experience associated with creating and operating a business venture. The challenge is that entrepreneurs may want to retain their focus on tasks closely related with their competences and profession, but may have an aversion towards other tasks associated with the aggregate entrepreneurial process. Consequently, there is primarily a need to assist in developing entrepreneurial competences, for instance, by supporting and developing the operations and business. In general, expert entrepreneurs operate small businesses, and they do not have experience of working in an extensive network. Similarly, business skills and the competences associated with promoting and selling one’s own competence or venture ideas should be improved. In addition, the entrepreneurs need assistance in becoming financially informed, since they often lack knowledge of making investments and assembling various resources. The entrepreneurs may also need assistance in locating and assessing potential business associates, successors or co-operative parties. These would assist the continuance of their entrepreneurial processes in various ways. More concretely, various agents may assist
entrepreneurs to find work openings by taking a fee from the contracting company, but by offering the service ‘free of charge’ for the designer. Many entrepreneurs do not have the time to take care of their own promotion, and many feel it is unpleasant to do it themselves.

8.4. CRITICAL OVERVIEW OF THE STUDY

This section provides a critical reflection concerning the overall research process and the choices I made during its development. This is done by first discussing the research approach and then focusing on the research process more specifically.

In this study, the aim was not to explain entrepreneurial processes based on definite research outcomes, but to increase the understanding of them in the given research context (cf. Arbnor & Bjerke, 1997). Therefore, it is more than likely that by reproducing this study another researcher would not make the same findings or interpretations as set forth here. The underlying assumption was that entrepreneurial processes are observable, context dependant, complex and multifaceted phenomena. The selected interpretive research approach enabled a learning process, since I worked with data collection, data interpretation and theory building throughout the research process. At times, the theoretical discussion directed data collection, and at times the data gathering process pointed at shortages or called for modifications in the theoretical discussion. It is evident that parts of the research process will remain unclear for an outsider, even if I have tried to report truthfully on my pre-understanding, as well as all major interpretations and decisions that were made. Due to the ongoing learning process, I gained a considerable number of new insights and reached a new level of understanding. I probably now take many things as given which were not even considered at the beginning of the research process. Therefore, it would be difficult to answer objectively what would be done differently were the study to be re-conducted.

The primary unit of analysis was the entrepreneurial process, which was influenced by individual(s) behaviour and the surrounding environment. More specifically, this study examined the process elements (e.g. individual characteristics, the environment and the venture ideas) and their influence on the behaviour and development of the entrepreneurial process. There were naturally some challenges and evident risks with applying literature that focused on different levels, and also in collecting and interpreting data from different sources, even if the focus was on entrepreneurial processes. It would have been possible to focus on some other unit or level of analysis, for instance, the design entrepreneur or the venture idea. On the other hand, the applied research method and unit of analysis to some extent enabled a focus on a multiple number of sub-units, which was regarded as fruitful for analysis purposes. The results are applicable on the process level of analysis, but future studies are required to understand the phenomenon in more depth on another level of analysis.

Ultimately, I am confident that the interchange between the ways respondents were selected provided a multifaceted insight into the examined phenomenon, and it also raised the level of understanding (Abnor & Bjerke, 1997). Another set of actors, respondents and/or another researcher would most likely have resulted in another form of research data and subsequent interpretations. Nonetheless, I did not find this to be
particularly concerning but instead in line with the selected research approach. My ambition was to increase our understanding concerning the design entrepreneurs’ processes and their interaction with other actors. This decision required interpretation of extensive data that derived from a range of actors. The decision to collect data by interviewing each respondent only once involved some limitations concerning the captured insights. It is evident that longitudinal data collection would have resulted in more extensive data and perhaps more insightful findings. In practice, this could have been done by asking the entrepreneurs to write a diary concerning their daily or weekly endeavours. Due to several uncertainty and resource factors, it was relatively easy to decide on collecting data via interviews. In fact, the choice of interviewing turned out to be good, both for data collection purposes and also for indicating a direction for the continuance of the research process.

Perhaps it would have made sense to focus on a small number of cases to overcome some of the resource deficits in this study. This would have allowed the examining and interpreting of entrepreneurs and external actors associated with particular entrepreneurial processes. Juxtaposing statements from the same entrepreneurial processes could have produced different and perhaps more insightful answers. However, I made the decision to examine each design entrepreneur’s entrepreneurial process in detail, and interview external actors based on their experiences of working with a range of design entrepreneurs and associated entrepreneurial processes. The data from external actor interviews and the collected additional information were used to evaluate the association between the theoretical framework and the design entrepreneurs’ interpreted state of affairs. Some of the external actors were in fact selected based on suggestions made by the design entrepreneurs, but even then the discussions remained mostly on the aggregate level. This deliberate decision limited the ability to juxtapose statements related exactly to the same entrepreneurial process, but it still increased my understanding of design-related processes in the examined context. The emphasis was on the design entrepreneur interviews, and the external actor interviews and additional material were used to strengthen my interpretations and for building an understanding of the examined phenomenon. Nevertheless, I fell to some extent for my own criticism towards generalization of entrepreneurial processes, because I constructed meaning based on data from distinct social contexts.

For consistency and confidentiality reasons, I chose not to highlight processes where I actually interviewed both design entrepreneurs and external actors. Nonetheless, I interpreted these cases carefully and built my overall understanding based on these specific relationships. Thus, with consistency, I signified that all entrepreneurial processes and external actors were reported in a similar manner. Moreover, with confidentiality I wanted to ensure that no complete business patterns would be identifiable from the data, since it could have harmed the business of the involved parties. In that sense, the integrity of respondents was perhaps not a major issue as respondents could answer freely and without the risk of being recognized. The scope of industrial design in Finland is limited, and it is an industry where most established actors know each other well. The small size of the industry made me convinced that the interviewed design entrepreneurs and external actors had a good picture of the logic behind design-related processes in the Finnish context. This probably reduced
somewhat the disadvantages of interviewing external actors without connecting and reporting findings to the examined design entrepreneurs.

Some may wonder why the decision was made to become acquainted with previous literature, before entering the field. There are probably many reasons that would be valid as answers to this question, but perhaps the strongest is my previous understanding of the entrepreneurship process literature. Entering the field without any presupposition would not have been possible, or at least it would not have been truthful. Instead the decision was made to systematically collect and review previous contributions, since then at least an outsider could capture the underlying logic of this study. In that sense, the literature review assisted in gathering an initial understanding of potential elements, activities and dilemmas recognized by previous research. Moreover, the research questions and concepts were originally tentatively defined, which allowed modifications and improvements as appropriate along the research process. This gave some direction, but I was careful not to let previous research take control of the research process. Although I was confident that most perspectives of entrepreneurial processes were covered in the literature review, a few additional ones appeared later during the research process. Some of these were referred to in section 7.3.5, where I showed openness towards theoretical representations that had been ignored in my line of interpretation. Eventually, when bringing together the research findings, I realized that entrepreneurial literature would not be able to explain some of the special features associated with design entrepreneurship. Therefore, I needed to consult industrial design and product-development-related literature, since it would further explain the uniqueness of industrial designers when self-employed. Consequently, I made the decision to collect additional literature and compare it with my interpretations when bringing together the research findings. This extended interpretation considerably increased my understanding and explanatory power concerning the special features of design entrepreneurship.

Finally, a remark about the trustworthiness of the study. As in any study, it became crucial for me to pay attention to noting when the empirical material was sufficient, and when to stop interpreting between theory building and data analysis. I felt that the interview data began to resemble the previous ones at the end of the two data collection rounds (Eisenhardt, 1989; Charmaz, 2006), especially after comparing findings with field-specific literature as explained above. Importantly, I was careful to ensure that the interpretations remained representative for each of the respondents. There was an evident risk that by intensely analysing and interpreting qualitative data, in the end it would resemble more my interpretations rather than the respondents’ state of affairs. Here, several measures were taken to ensure that this was avoided. For instance, the usage of several different data analysis strategies, writing process descriptions, and the usage of coding to ensure that the interpretations did not drift and unintentionally change during the process. In that sense, I was aware of the potential risks related to interpreting messy data and also of the learning process during the analysis process. In that sense, I believe that saturation was reached, and that I showed respect towards the data throughout the study. However, it would be difficult to guarantee that additional data collection would not have raised any new issues concerning the complex and multifaceted process of entrepreneurship. Although this study did not aim at generalisation, I was careful throughout the research process to ensure the credibility of
the research findings (Yin, 1989). Nevertheless, it is worth remembering that process data is always messy, and making sense from them is thus challenging (cf. Langley, 1999).

8.5. SUGGESTIONS FOR FUTURE RESEARCH AVENUES

The findings from this study indicate that, while there are many similarities, there are also differences between entrepreneurial processes in various contexts. Therefore, the assumption is that research on the conceptual level, or findings from large and diverse samples may not be particularly successful in trying to explain entrepreneurial processes, which take place in different contexts. Instead, the suggestion is that future research is aware of the existing heterogeneity, and continues to examine entrepreneurial processes as highly context-dependant.

The interpretations from this study raised many different options for continuing empirical research. For instance, it would be possible to examine the relevance of the conceptual process model presented in Figure 16 (7.3.4) in some other empirical context, for instance, with some other group of professionals or academics that orchestrate entrepreneurial processes. Overall, there exists only a limited understanding of the relations between entrepreneurs and external actors in association with entrepreneurial and new product development processes.

It would also be feasible to examine longitudinally the creation and development of a number of entrepreneurial processes by observing the associated behaviour of the entrepreneur(s) and their interaction with other involved actors. However, there might be potential challenges in determining when the selected process starts and finishes, and, as importantly, when studying them should start and finish. The suggestion is that such longitudinal studies are preferably conducted by combining both quantitative and qualitative methods within a larger research group. This would bring richness to the data and simultaneously allow comparison of differences between different contexts. A longitudinal study is, however, extremely resource consuming and involves evident risks, for instance, related to drop outs and different development phases among selected entrepreneurial processes.

Another option would be to further develop and examine the validity of entrepreneurial process models that are identified in this study and others. This could take place on a conceptual level, but preferably by collecting and analysing empirical insights from various research contexts. In that sense, for instance, the findings from this study should be compared with previous and future research, in order to compare, confirm or contradict their explanatory power in some other research context.

In this study, the unit of analysis was the entrepreneurial process, which was assumed to be influenced by the behaviour of the individual(s) concerned and the surrounding environment. In addition, this study examined the process elements (e.g. individual characteristics, the environment and the venture ideas) and their influence on behaviour and progression. The results were applicable at this level of analysis, but future studies are required to understand the phenomenon at another level of analysis.
This study offers one of the first research contributions on design entrepreneurship from an entrepreneurial process perspective, at least in Finland. This particular field involves many interesting venues for future entrepreneurship research, particularly focusing on interaction between entrepreneurial and product development processes. There is a need to continue to study design service provision, but also to shed light on design entrepreneurs who design their own products. This study contributes with qualitative data on these phenomena and sets the ground for future entrepreneurship research associated with industrial design.

If future researchers decide to continue with explicitly quantitative studies, they should remember the context dependency of entrepreneurial processes. Therefore, it would make sense to concentrate on a relatively narrow population and limit generalizations to that specific context. Another perhaps less advisable possibility is to focus on examining the interactions between certain key elements, with respect to the process outcomes in a larger sample. Preferably, research should combine quantitative and qualitative methods in a multi-method study, which focuses on a specific research context.
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## APPENDIX 1  ENTREPRENEURIAL PROCESS MODELS

### Table 16  Literature on entrepreneurial opportunities

<table>
<thead>
<tr>
<th>Name and author(s)</th>
<th>Unit of Analysis (multiple vs. single entities)</th>
<th>Cycles &amp; Motors</th>
<th>Mode of Change (prescribed vs. constructive)</th>
<th>Processual Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>The entrepreneur and the initiation of new venture launch activities (Herron &amp; Sapienza, 1992)</td>
<td>Individual</td>
<td>Decision-making process: good outcomes will launch the venture.</td>
<td>Dissatisfaction (type &amp; level) is influenced by aspiration based on values, context and personality traits. These in turn together with skills (based on aptitude and training) influence the search behaviour; discovery (industry context &amp; strategy); and equilibrium estimation (contributions-inducements). Good opportunities eventually lead to launch activities directed at developing an organizational structure in accordance with industry context and strategy.</td>
<td>Discovery process</td>
</tr>
<tr>
<td>A decision theory model for entrepreneurial acts (Campbell, 1992)</td>
<td>Individual</td>
<td>Entrepreneurial acts &amp; decisions of self-employment via new venture creation</td>
<td>Creation of a firm, production of a new product or use of new technology or new organizational form</td>
<td>Allocative process</td>
</tr>
<tr>
<td>Entrepreneurial venture creation model (Bhave, 1994)</td>
<td>Individual</td>
<td>Entrepreneurial behavioural novelty in new venture creation</td>
<td>Iterative, nonlinear, feedback driven, conceptual and physical process: Opportunity recognition (stimulated), commitment to physical creation, set up of production technology, organization creation, product creation, linking with markets, and customer feedback.</td>
<td>Discovery process</td>
</tr>
<tr>
<td>The informational basis of entrepreneurial discovery (Fiet, 1996)</td>
<td>Individual</td>
<td>Entrepreneurial opportunity discovery and aquisition of information</td>
<td>Investments in information (specific information &amp; previous experience), signal of venture opportunity, information channel, security arrangements, roles (risk bearer, innovator, risk bearer &amp; innovator and risk arbitrageur) and discovery.</td>
<td>Discovery process</td>
</tr>
<tr>
<td>Individual-opportunity model (Shane &amp; Venkataraman, 2000; Shane, 2003; Sarasvathy et al., 2003b)</td>
<td>Individual, process, venture or environment</td>
<td>Individual attributes (psychological &amp; demographic factors) and Environment (industry &amp; maco-environment) influence the entrepreneurial process.</td>
<td>Entrepreneurial opportunities: discovery, opportunity exploitation and execution (resource assembly, organizational design &amp; strategy)</td>
<td>Discovery process</td>
</tr>
<tr>
<td>Alertness and the opportunity identification process (Gaglio &amp; Katz, 2001)</td>
<td>Individual</td>
<td>Entrepreneur's alertness based on personality traits and prior knowledge</td>
<td>Alertness for novel, unusual or contrary information guides processing : ignorance or discount (status quo: imitative or incremental opportunity) or alert (how to integration finding with existing or new means-end: innovative opportunities).</td>
<td>Discovery process</td>
</tr>
<tr>
<td>Entrepreneurial opportunity identification and development (Ardichvili, Cardozo &amp; Ray, 2003)</td>
<td>Individual level (entrepreneurial alertness)</td>
<td>Entrepreneurs alertness based on personality traits, social networks and prior knowledge</td>
<td>Entrepreneurial alertness influences the core process: Perception, discovery &amp; creation, development, evaluation (abortion, venture formation or subsequent business) of certain type of opportunity.</td>
<td>Discovery process</td>
</tr>
<tr>
<td>Creative effectuation model (Sarasvathy, 2001)</td>
<td>Individual</td>
<td>Given means, choice of effect driven by characteristics of actor and ability to discover and use contingencies.</td>
<td>Takes a set of means as given and focus on selecting between possible effects that can be created with that set of means.</td>
<td>Creative process</td>
</tr>
<tr>
<td>Creativity based model of entrepreneurial opportunity recognition (Lumpkin, Hill &amp; Shrader, 2001)</td>
<td>Individual</td>
<td>Entrepreneurial creativity (excludes influence from contextual factors)</td>
<td>Preparation (deliberate or unintended), incubation, insight (eureka experience, problem solved or idea shared), evaluation and elaboration.</td>
<td>Creative process</td>
</tr>
</tbody>
</table>
Table 17  Literature on entrepreneurial behaviour

<table>
<thead>
<tr>
<th>Name and author(s)</th>
<th>Unit of Analysis (multiple vs. single entities)</th>
<th>Cycles &amp; Motors</th>
<th>Mode of Change (prescribed vs. constructive)</th>
<th>Processual Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>A model of new venture initiation: a discourse on rapacity and the independent entrepreneur (Webster, 1976)</td>
<td>Individual and organization</td>
<td>Entrepreneurial rapacity and its inter-play with venture vulnerability.</td>
<td>Stages: pre-venture; era of team work, hard work and enthusiasm; financial jeopardy; product introduction; overdue payables, initial market success and revived hope; rapacity; re-negotiation or termination of venture</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>New venture creation model (Gartner, 1985)</td>
<td>Individual and organization</td>
<td>Entrepreneurial behaviour in new venture creation.</td>
<td>Characteristics of the individual(s) starting the new venture; the organization which they create, the environment surrounding the new venture, and the process by which the new venture is started.</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>Moore’s entrepreneurial process model (Moore, 1986; Bygrave, 1989, 1994)</td>
<td>Individual and organization</td>
<td>Personal, innovation and organization characteristics, and environment.</td>
<td>Innovation is influenced by personal characteristics PS (creativity, information-seeking behaviour &amp; tolerance for ambiguity) and environment E (source of opportunity, support for creativity &amp; personal environment). Implementation is influenced by PS (risk taking, job dissatisfaction or loss) and Innovation characteristics (product protection, organizational team &amp; quality of resources) and E (incubator organization &amp; organization culture). Growth is influenced by PS (education, experience &amp; managerial ability), organizational characteristics (e.g. management practices) and environment (competition &amp; environmental change).</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>An interactive model of new venture creation (Greenberger and Sexton, 1988)</td>
<td>Individual</td>
<td>Interaction among a number of personal and social features.</td>
<td>Vision, personality and control desired are catalysts for the process, which influence individuals decisions (salience, self-perceptions, social support and control possessed). Together or alone these increase the likelihood for new venture initiation (decision to initiate a new venture).</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>Operation of entrepreneurial intentions (Bird &amp; Jelinek, 1988, Bird, 1988, 1992)</td>
<td>(Individual) and organization</td>
<td>Entrepreneurial intentional behaviour and the environmental context.</td>
<td>Flexible focus, structuring resources, temporal agility, influencing others and behavioural flexibility influence venture creation</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>A model of organization formation (Learned, 1992)</td>
<td>Individual and organization</td>
<td>Individual characteristics and behaviour.</td>
<td>Propensity to found (traits &amp; background); intention (situations); sensemaking; and decision (found or abandon)</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>A model of entrepreneurial socialization and organization formation (Starr and Fondas, 1992)</td>
<td>(Individual) and organization</td>
<td>Organizational socialization (intra and inter-personal processes)</td>
<td>Organization formation is shaped by to stages: 1. anticipatory socialization (e.g. attitudes, expectations and information sources) and 2. New entrepreneur socialization (motivation, socializing agents &amp; structural factors). The eventual outcome is organization formation, survival or discontinuance of new venture.</td>
<td>Behavioural process</td>
</tr>
</tbody>
</table>

*The table continues on the next page*
<table>
<thead>
<tr>
<th>Name and author(s)</th>
<th>Unit of Analysis (multiple vs. single entities)</th>
<th>Cycles &amp; Motors</th>
<th>Mode of Change (prescribed vs. constructive)</th>
<th>Processual Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation corridor: environmental load and pre-organization information-processing ability (Hansen &amp; Allen, 1992)</td>
<td>Organization</td>
<td>Environmental load and pre-organization information processing ability,</td>
<td>Information (load and diversity) influences the environmental load; Pre-organization (size, interconnectivity and frequency) influences pre-organization information processing ability; together these form an interaction effect that influences the likelihood of new organization creation.</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>A model of venture creation in new industries (VanderWerf, 1993)</td>
<td>Organizations and industry</td>
<td>Information gathering and fund raising</td>
<td>Pool of potential entrants, their intentionality is influenced by attractiveness of industry, ability of individual ventures to compete and technical effort. Attractiveness of of industry increases with functional capabilities and positive publicity, which in turn increases potential entrants. Existing companies in the industry are influenced by competition and market expansion, which in turn affects their financial performance and also positive publicity of industry.</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>A Network model of organization formation (Larson &amp; Starr, 1993)</td>
<td>Networks and organizations</td>
<td>Dyadic exchanges and networking activities.</td>
<td>Focus on essential dyads (contracting, expanding, culling); convert dyadic ties to socio-economic exchanges (Exploration and engagement); and layer the exchanges with multiple exchange processes (multiple functions, integration activities, organizational &amp; individual levels of exchanges); network crystalization=organizational formation.</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>Environments for entrepreneurship development (Gnyawali &amp; Fogel, 1994)</td>
<td>Environment, individuals and organizations</td>
<td>Environmental conditions, and entrepreneurs' propensity and ability to enterprise</td>
<td>Opportunity (possibilities for new ventures to exist!) influenced by government policies and procedures. The ability to enterprise (entrepreneurial &amp; business skills) and propensity to enterprise (socio-economic factors) both influence the likelihood to enterprise and new venture creation. So does financial and non-financial assistance as well.</td>
<td>Behavioural process</td>
</tr>
<tr>
<td>A cross-cultural cognitive model of new venture creation (Busenitz &amp; Lau, 1996)</td>
<td>Individual and Environment</td>
<td>Cognition</td>
<td>Social context (social mobility, ecological niche &amp; market conditions), cultural values (individualism, uncertainty avoidance, power distance, masculinity &amp; time orientation) and personal variables (risk-taking, locus of control &amp; achievement motivation) influence cognition: cognitive structure (schema: risk, control, start-up opportunity &amp; benefits) and cognitive process (heuristics: availability, representation, overconfidence &amp; anchoring) influence entrepreneurial start-up intention and venture creation decision.</td>
<td>Behavioural process</td>
</tr>
</tbody>
</table>
Appendix 2 Preliminary e-mail questions to design entrepreneurs

Preliminary e-mail questions to design entrepreneurs

(These questions were sent to a selected number of design entrepreneurs. After analyzing the response, each design entrepreneur was contacted to either agree upon an interview time, or to inform them why they were not suitable participants for this study).

I would like you to answer briefly the four questions stated below (five minutes).

- Have you registered yourself as a private person carrying on trade, or have you registered some other business form (for instance, a limited partnership or a limited company) to the National Board of Patents and Registration of Finland? (Potential name and year of establishment)
- How would you describe the current development level of your product or service?
- How much work time are you currently devoting to developing the business? (Is your commitment going to increase significantly during the incoming year, 2007?)
- When do you expect your business to pay you a reasonable income?

Thank you. Please return your answers as soon as possible!

I am happy to answer any questions; you can reach me via e-mail or my mobile phone number stated below. I will contact you a few days after receiving your answers.

XOX
Appendix 3  Theme interview guide for design entrepreneur interviews

The following themes are related to significant factors which influence the commencement of exploiting business ideas and their ongoing development within the field of industrial design. Beforehand, the researcher had prepared a few general questions, which requested the industrial designer to talk about his or her profession in relation to entrepreneurship. These general questions were followed by more comprehensive questions, which aimed at specifying the content of the given responses. At the end, the respondents were addressed with check-up questions, which focus particularly on the design process in addition to the influence of, for example, various resources and motivation. In practice, the questions were adjusted according to the interview situations by stating additional questions on subjects that were brought up by the respondents.

General questions:

Could you describe what it is like to be creative by profession (i.e. an industrial designer)? Can you also give an example of a typical day for you?

Could you describe how entrepreneurship is visible in your daily activities? Could you also present in a sequence how you decided to consider self-employment? Describe, too, how entrepreneurship has or is about to become part of your daily activities.

Comprehensive questions:

- How do you receive ideas associated with either design, business or both?

- In practice, how has the original business idea materialized? Describe the development process. How do you wish the development to continue?

How have the following individual resources influenced your self-employment: 1. Creativity, education and experience? 2. Contact network? 3. Financial capital? How do you believe these resources will develop at the individual and potentially at the company level?

What kind of creative and business-associated goals do you have? How do you feel that these play together?

In addition, several interview specific additional questions were asked regarding: personal and environmental factors, and identification, and exploitation of ideas, as well as modes for carrying out these ideas, and initial outcomes.

Check-up questions:

- How do you see the association between creativity and entrepreneurship in your occupation?

- Considering entrepreneurship, what have so far been the most challenging experiences?

- What kind of tasks would you prefer to work with in the future, and how is this possible to accomplish?
Appendix 4  

Interview guide for external actor interviews

In this study, we focus on industrial designers who design different kind of products and goods for client companies on a service basis, and/or design, produce, and sell their own design products in association with other businesses.

Design entrepreneurship:

- What do you associate with design entrepreneurship?
- Give a few examples of, in your opinion, typical design entrepreneurs.
- What are these design entrepreneurs’ strengths as industrial designers as well as entrepreneurs?
- What are their potential weaknesses as industrial designers and as entrepreneurs?

Design entrepreneurs and external actors:

Imagine design entrepreneurs who either offer industrial design services or seek external actors (customers, suppliers or collaborators) to develop and commercialize their own product-related ideas (e.g. product development, production and marketing).

- What kinds of companies are typically their customers, suppliers and collaborative parties?
- How and where do these parties form relations with each other?
- Generally speaking, what kind of added value does the client companies receive from the services offered by design entrepreneurs?
- Describe the role division between the parties in product development, production and marketing.
- How do you see the association between creative and commercial aspects in the product development process?
- How do product development processes typically commence and develop into finalized products?
- How would you describe decision-making associated with creativity during co-operation (who decides, in which phase and upon what, and what is the design entrepreneurs role?)
- How would you describe decision-making associated with commercial aspects during co-operation (who decides, in which phase and upon what, and what is the design entrepreneurs role?)
- How does a product’s novelty (innovation) influence decision-making?
- What is important for the design entrepreneurs’ during co-operation?
- What is important for the other parties involved?
- What is the basis for establishing a business relationship between the parties?
- How would you describe the negotiation circumstances between the parties?
- What kinds of contract normally steer the business relationship/co-operation?
- What is the role of potential patents or pattern rights?
- Which are the critical resources from an operations point of view?
- How do parties consider and foresee potential commercial risks?

  xox

- What is your message to starting design entrepreneurs who want to offer industrial design services / products in association with collaborative companies?

**Contacts:**

**Could you possibly name important parties for design entrepreneurs in association with the following?**

- Product development
- Production
- Commercialization
- Others, for instance, related to business in general?
## APPENDIX 5 OVERVIEW OF INTERVIEWS

### Table 18 Interviews underlying this study

<table>
<thead>
<tr>
<th>Used code</th>
<th>Interviewee(s)</th>
<th>Line of business</th>
<th>Employees (categories)</th>
<th>Interview date and time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preliminary discussions:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Niku Oravainen (Lecturer) and</td>
<td>Further education</td>
<td></td>
<td>31.10.2005, 14.00-16.00</td>
</tr>
<tr>
<td></td>
<td>Eeva Mäkinen (Project manager)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eeva Mäkinen (Project manager)</td>
<td>Further education</td>
<td></td>
<td>28.3.2006, 13.00-14.30</td>
</tr>
<tr>
<td></td>
<td>Krister Ahlström (Senior Adviser)</td>
<td></td>
<td></td>
<td>29.3.2006, 17.00-18.00 (telephone)</td>
</tr>
<tr>
<td></td>
<td>Miisa Suvisaari (CEO)</td>
<td>Strategic design agency</td>
<td></td>
<td>14.11.2006, 16.00-17.30</td>
</tr>
<tr>
<td></td>
<td>Preliminary discussions:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pilot Account Manager, Partner and Program Manager</td>
<td>Industrial design agency</td>
<td>10-19</td>
<td>19.1.2007, 14.00-16.00</td>
</tr>
<tr>
<td></td>
<td>Interviews with design entrepreneurs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Design entrepreneur</td>
<td>Design services provision</td>
<td>1-4</td>
<td>3.3.2006, 11.00-14.00</td>
</tr>
<tr>
<td></td>
<td>B Design entrepreneur</td>
<td>Design services provision</td>
<td>1-4</td>
<td>26.1.2006, 16.00-18.00</td>
</tr>
<tr>
<td></td>
<td>C Design entrepreneur</td>
<td>Design services provision</td>
<td>1-4</td>
<td>8.3.2006, 10.00-13.00</td>
</tr>
<tr>
<td></td>
<td>D Design entrepreneur</td>
<td>Own product development</td>
<td>1-4</td>
<td>25.1.2006, 16.00-12.30</td>
</tr>
<tr>
<td></td>
<td>E Design entrepreneur</td>
<td>Own product development</td>
<td>1-4</td>
<td>1.3.2006, 15.00-17.30</td>
</tr>
<tr>
<td></td>
<td>F Design entrepreneur</td>
<td>Design services provision</td>
<td>1-4</td>
<td>7.2.2006, 12.00-15.00</td>
</tr>
<tr>
<td></td>
<td>G Design entrepreneur</td>
<td>Own product development</td>
<td>1-4</td>
<td>24.2.2006, 12.00-15.00</td>
</tr>
<tr>
<td></td>
<td>H Design entrepreneur</td>
<td>Own product development</td>
<td>1-4</td>
<td>2.3.2006, 10.00-12.30</td>
</tr>
<tr>
<td></td>
<td>Pilot interview:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interviews with design advisors: advice and promotion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ad1 Project Manager</td>
<td>Business incubator</td>
<td>1-4</td>
<td>24.1.2007, 11.00-14.00</td>
</tr>
<tr>
<td></td>
<td>Ad2 CEO</td>
<td>Support and promotion organization</td>
<td>10-19</td>
<td>23.2.2007, 9.30-11.40</td>
</tr>
<tr>
<td></td>
<td>Interviews with design experts: field specific experts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>De1 Creative Director, Partner, Former Industrial Designer, Academic Researcher</td>
<td>Industrial design agency</td>
<td>20-49</td>
<td>22.1.2007, 12.00-15.00</td>
</tr>
<tr>
<td></td>
<td>De2</td>
<td>University</td>
<td>250-499</td>
<td>15.3.2007, 9.30-12.30</td>
</tr>
<tr>
<td></td>
<td>Interviews with marketing and communication: sales and promotion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ma1 CEO, Owner</td>
<td>Design management agency</td>
<td>1-4</td>
<td>20.2.2007, 13.00-15.00</td>
</tr>
<tr>
<td></td>
<td>Ma2 COB, Owner</td>
<td>Design marketing company</td>
<td>1-4</td>
<td>16.3.2007, 15.00-17.00</td>
</tr>
<tr>
<td></td>
<td>Ma3 Creative Manager, Owner</td>
<td>Design strategy and PR agency</td>
<td>1-4</td>
<td>21.3.2007, 16.00-18.20</td>
</tr>
<tr>
<td></td>
<td>Ma4 CEO, Owner</td>
<td>Furniture designer and marketer</td>
<td>20-49</td>
<td>27.2.2007, 10.00-11.30</td>
</tr>
<tr>
<td></td>
<td>Ma5 CTO</td>
<td>Instrument developer and marketer</td>
<td>5-9</td>
<td>21.3.2007, 9.00-10.15</td>
</tr>
<tr>
<td></td>
<td>Interviews with production: manufacturing and sub-contracting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pr1 CEO, Owner</td>
<td>Subcontractor and manufacturer of own product</td>
<td>50-99</td>
<td>21.2.2007, 10.00-12.30</td>
</tr>
<tr>
<td></td>
<td>Pr2 COB, Owner</td>
<td>Subcontractor and manufacturer of own product</td>
<td>5-9</td>
<td>22.2.2007, 14.00-15.30</td>
</tr>
<tr>
<td></td>
<td>Pr3 CEO, Owner</td>
<td>Subcontractor and manufacturer of own product</td>
<td>50-99</td>
<td>15.3.2007, 10.00-12.30</td>
</tr>
<tr>
<td></td>
<td>Pr4 CEO, Owner</td>
<td>Manufacturer of own product</td>
<td>50-99</td>
<td>20.3.2007, 14.00-17.00</td>
</tr>
</tbody>
</table>

The interviews started on the 25.1.2006 and ended on the 21.3.2007  
The total interview time was 2,997 minutes, appr. 50 hours.  
Total transcribed pages was 234 (design entrepreneurs) + 360 (process participants) = 594 pages
### APPENDIX 6  DESIGN ENTREPRENEURS PROCESS ACTIVITY DESCRIPTIONS (TABLES 18-25)

The applied variables in the design entrepreneurs process descriptions are described more thoroughly in the research methods (section 4.3.3, table 3).

**Table 19 Process activity descriptions:** *Design entrepreneur A*

<table>
<thead>
<tr>
<th>Activity description</th>
<th>Input</th>
<th>Output</th>
<th>Events</th>
<th>Element</th>
<th>Opportunity</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1 Artesan studies (1996)</strong></td>
<td>Interest in drawing and crafting</td>
<td>Woodcrafting artesan</td>
<td>Acceptance to school and graduation</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>A2 Initial interest in self-employment</strong></td>
<td>Matriculation from school</td>
<td>Lack of financing (machinery) and competition: decision not to exploit</td>
<td>Small scale market study</td>
<td>Opportunities &amp; identification; Decision-making</td>
<td>Identification &amp; development</td>
<td>Venture creation</td>
</tr>
<tr>
<td><strong>A3 Employment (e.g. in warehouse &amp; factory) and military service in 1997 (1996-2000)</strong></td>
<td>Dissatisfaction of working conditions</td>
<td>Wants to quit job and continue studies in industrial design</td>
<td>Application for study place</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>A4 Industrial design studies (2001-2005)</strong></td>
<td>Acceptance and willingness to study</td>
<td>B.Sc. in industrial design</td>
<td>4 year studies (took 5 years due to problem in sticking to schedules)</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>A5 Work practice</strong></td>
<td>Mandatory part of studies</td>
<td>Experience from working with prototype design and tool production</td>
<td>Work practice in a prototype factory</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>A6 Decision in favour of self-employment (autumn 2005)</strong></td>
<td>Graduation, long time willingness, no loans &amp; 6 months of governmental start-up financing</td>
<td>Self-employment</td>
<td>Notice to tax office of self-employment</td>
<td>Opportunities &amp; identification; Decision-making</td>
<td>Identification &amp; development</td>
<td>Venture creation</td>
</tr>
<tr>
<td><strong>A7 Business idea development</strong></td>
<td>After 6 months, still no clear business idea</td>
<td>Desire to work on an hourly basis with industrial clients</td>
<td>Discussions with a friend also starting a similar business</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Exploitation</td>
<td>Venture creation</td>
</tr>
<tr>
<td><strong>A8 Homepage development</strong></td>
<td>Need to get sales support, due to perceived lack of social &amp; sales skills</td>
<td>Creation and fine-tuning of the homepage</td>
<td>A lot of work put into homepage</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Identification &amp; development</td>
<td>Venture creation</td>
</tr>
<tr>
<td><strong>A9 Sales work “cold calls”</strong></td>
<td>Need to sell, but lack of previous experience and references</td>
<td>Hates sales work: minimal investment</td>
<td>Calling up a few potential clients</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Identification &amp; development</td>
<td>Venture creation</td>
</tr>
</tbody>
</table>

*The table continues on the next page*
<table>
<thead>
<tr>
<th></th>
<th>First customer</th>
<th>After 6 months, first customer (relative), due to minimal sales work</th>
<th>Graphic design and concept</th>
<th>Assists a start-up client to create business outlook</th>
<th>Mode of organizing &amp; outcomes</th>
<th>Exploitation</th>
<th>Venture creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A11</td>
<td>Future Business</td>
<td>Education in furniture design (royalty-based), but desire to work on hourly basis with industrial design</td>
<td>In the beginning, focus on a broader scope of design services to earn a living</td>
<td>So far, mostly seeking direction, next find arguments for what to do and why</td>
<td>Decision-making</td>
<td>Exploitation</td>
<td>Venture creation</td>
</tr>
<tr>
<td>A12</td>
<td>Need to improve verbal skills</td>
<td>Problems in articulating sales argument</td>
<td>Unwillingness to sell</td>
<td>Participation in DBN and regional business network</td>
<td>Competence &amp; experience</td>
<td>Identification &amp; development</td>
<td>Venture creation</td>
</tr>
<tr>
<td>A13</td>
<td>Business development (winter 2006)</td>
<td>Limited number of customers</td>
<td>Lack of financial means</td>
<td>No possibility to develop or for changing business status</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Identification &amp; development</td>
<td>Venture creation</td>
</tr>
<tr>
<td>Activity description</td>
<td>Input</td>
<td>Output</td>
<td>Events</td>
<td>Element</td>
<td>Opportunity</td>
<td>Behaviour</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>B1 Previous experience from part-time self-employment</td>
<td>Need to fulfill own needs</td>
<td>Work with desired tasks.</td>
<td>Start-up of two different businesses.</td>
<td>Competence &amp; experience</td>
<td>Sources &amp; Exploitation</td>
<td>Post-creation &amp; Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B2 Artisan studies</td>
<td>Interest in crafting.</td>
<td>Woodcrafting artisan</td>
<td>Acceptance to school and graduation</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B3 Work (instructor for 2 years)</td>
<td>A lot of responsibility.</td>
<td>Limited possibilities to influence, dislike of work.</td>
<td>Assisted mentally disabled in craftwork.</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B4 Industrial design studies (2006)</td>
<td>Desire to learn more about the field.</td>
<td>B(Sc.) in Industrial design</td>
<td>Part-time at a business incubator, participation in entrepreneurship programme etc.</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Sources &amp; Exploitation</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B5 Scanning the market for opportunities (2005-2006)</td>
<td>Need to find a future income.</td>
<td>Contact with companies and looking around.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td></td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B6 Building a business network</td>
<td>Locating co-operative parties to increase competence range.</td>
<td>Some, but too early to state any final outcomes.</td>
<td>Part-time at a business incubator, participation in entrepreneurship programme etc.</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Sources &amp; Exploitation</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B7 Prototypes</td>
<td>Previous product and business ideas and interest in developing new ones.</td>
<td>Prototypes and ideas waiting for the right opportunity to be launched.</td>
<td>Working with a specific material world.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B8 Visions of future self-employment</td>
<td>Would like to work for someone else and start business as part-time venture (family to support).</td>
<td>Financial support for setting up own business (risk aversion)</td>
<td>Developing his/her own business, but also looking for employment.</td>
<td>Opportunities &amp; identification; decision-making</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>B9 Business plan creation (winter 2006)</td>
<td>Assistance from new business center etc.</td>
<td>Map for future business.</td>
<td>Will start to develop after handing in final work to school (1 month)</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
<td></td>
</tr>
</tbody>
</table>
### Table 21  Process activity descriptions: Design entrepreneur C

<table>
<thead>
<tr>
<th>Activity description</th>
<th>Input</th>
<th>Output</th>
<th>Events</th>
<th>Element</th>
<th>Opportunity</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C1</strong> Factory work</td>
<td>Graduation from college.</td>
<td>Desire to study &amp; experience of working with plastics manufacturing. B(Sc.) Industrial design, basic skills in working with machines, PCs and prototypes.</td>
<td>Practice work in a factory</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>C2</strong> Industrial design studies (4 years)</td>
<td>Desire to learn about product design.</td>
<td>Dissatisfaction with educational institution</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td><strong>C3</strong> Work practice in an industrial design agency</td>
<td>Work practice</td>
<td>Building prototypes. Interest to apply for studies abroad.</td>
<td>Discussion with a foreign colleague</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>C4</strong> Industrial design studies (2 years) abroad</td>
<td>Acceptance to two of the best schools in Europe, chose the foreign.</td>
<td>Theoretical knowledge, broad international contact network.</td>
<td>Intensive studies.</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>C5</strong> Project based work (1 year)</td>
<td>Knew people in the design sector abroad, but not in Finland.</td>
<td>Decided to stay abroad and work in various projects.</td>
<td>One work opportunity led to another.</td>
<td>Decision-making</td>
<td>Identification &amp; development</td>
<td>Venture creation</td>
</tr>
<tr>
<td><strong>C6</strong> Freelancer for large design company,</td>
<td>Company sought freelancers: benefit from previous plastics work experience.</td>
<td>A couple of projects were completed and then rapid increase of assignments. No time to work for other companies any longer.</td>
<td>Freelance work for the company</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Exploitation</td>
<td>Post-creation</td>
</tr>
<tr>
<td><strong>C7</strong> Employment by the former client (five years)</td>
<td>Rapidly growing order stock, desire of company to employ instead of freelance.</td>
<td>Several different positions, last one design manager.</td>
<td>Working in close co-operation with subcontractors globally.</td>
<td>Competence &amp; experience</td>
<td>Decision-making</td>
<td>Post-creation</td>
</tr>
<tr>
<td><strong>C8</strong> Sabbatical year</td>
<td>Too specific work tasks, not enough variation.</td>
<td>Decision to quit the job, without any specific future plans: Freedom!</td>
<td>Consideration between money and freedom.</td>
<td>Personality &amp; Decision-making</td>
<td>Decision-making</td>
<td>Pre-venture</td>
</tr>
<tr>
<td><strong>C9</strong> Decision to return to freelancing</td>
<td>Dislike of new work opportunities.</td>
<td>Very unintentional decision be self-employed for a short period.</td>
<td>A few work interviews.</td>
<td>Decision-making</td>
<td>Exploitation &amp; Decision-making</td>
<td>Venture creation</td>
</tr>
<tr>
<td><strong>C10</strong> Working as freelancer</td>
<td>Product specifications from two major international clients</td>
<td>Product design that meets customer demand.</td>
<td>A few months of design work for creating a product</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Exploitation</td>
<td>Post-creation</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Table continues from previous page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C11  Project in Finland</strong></td>
</tr>
<tr>
<td><strong>C12  Move to Finland</strong></td>
</tr>
<tr>
<td><strong>C13  Studio in Helsinki, home and workshop in the country side</strong></td>
</tr>
<tr>
<td><strong>C14  New projects in Finland and abroad</strong></td>
</tr>
<tr>
<td><strong>C15  Promoting services in Finland</strong></td>
</tr>
<tr>
<td><strong>C16  Business idea still vague</strong></td>
</tr>
<tr>
<td><strong>C17  More royalty products</strong></td>
</tr>
<tr>
<td><strong>C18  Business planning</strong></td>
</tr>
<tr>
<td><strong>C19  Business idea 1: Link to international manufacturers</strong></td>
</tr>
<tr>
<td><strong>C20  Business idea 2: Developer of own design products</strong></td>
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</table>
### Table 22  Process activity descriptions: Design entrepreneur D

<table>
<thead>
<tr>
<th>Activity description</th>
<th>Input</th>
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<th>Events</th>
<th>Element</th>
<th>Opportunity</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1 Decision to become a craftsman (1986)</td>
<td>Risk of unemployment,</td>
<td>Self-employment</td>
<td>Business course attendance, business at home</td>
<td>Decision-making</td>
<td>Exploitation</td>
<td>Venture creation</td>
</tr>
<tr>
<td></td>
<td>insufficient skills</td>
<td></td>
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</tr>
<tr>
<td>D2 Move business (1990)</td>
<td>Youngest child goes to</td>
<td>More time for business</td>
<td>Business to separate workshop</td>
<td>Mode of</td>
<td>N/A</td>
<td>Post-creation</td>
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<tr>
<td></td>
<td>school</td>
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<td></td>
<td>exploitation &amp;</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3 Education (1990-92)</td>
<td>Keen to learn more</td>
<td>Professional competence</td>
<td>University studies (2 years) in industrial</td>
<td>Competence &amp;</td>
<td>Sources</td>
<td>Post-creation</td>
</tr>
<tr>
<td></td>
<td>about profession</td>
<td></td>
<td>design</td>
<td>experience</td>
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</tr>
<tr>
<td>D5 Identification of opportunity (1991)</td>
<td>Previous education &amp;</td>
<td>Brining competence and</td>
<td>Course assignment</td>
<td>Opportunities &amp;</td>
<td>Identification &amp;</td>
<td>Post-creation</td>
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<td></td>
<td>experience</td>
<td>materials together</td>
<td></td>
<td>development</td>
<td>development</td>
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<tr>
<td>D6 Initial Product idea</td>
<td>Customer needs</td>
<td>Product development</td>
<td>Working as a craftsman and spare time</td>
<td>Opportunities &amp;</td>
<td>Identification &amp;</td>
<td>Post-creation</td>
</tr>
<tr>
<td>D7 Initial market introduction (1992)</td>
<td>Depression</td>
<td>First orders, from</td>
<td>Participation in Finnish exhibition</td>
<td>Decision-making</td>
<td>&amp; Mode of exploitation</td>
<td></td>
</tr>
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<td></td>
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<td>foreign customers</td>
<td></td>
<td></td>
<td>Exploitation</td>
<td></td>
</tr>
<tr>
<td>D8 Continuance of craftsman work (late</td>
<td>Lack of necessary</td>
<td>Small-time sales of own</td>
<td>Served regional customers as before.</td>
<td>Decision-making</td>
<td>Exploitation</td>
<td>Post-creation</td>
</tr>
<tr>
<td>1990s)</td>
<td>business and</td>
<td>own product.</td>
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<td></td>
<td>language skills.</td>
<td></td>
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<tr>
<td>D9 Desire to move from</td>
<td>Dislike of working as</td>
<td>Motivation to make</td>
<td>Started to look for other means of income.</td>
<td>Mode of</td>
<td>Exploitation</td>
<td>Post-creation</td>
</tr>
<tr>
<td>craftsman work to</td>
<td>a craftsman (hard &amp;</td>
<td>make business out of own</td>
<td></td>
<td>exploitation &amp;</td>
<td></td>
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<tr>
<td>entrepreneurship (late 1990s)</td>
<td>non-creative)</td>
<td>product.</td>
<td></td>
<td>outcomes</td>
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</tr>
<tr>
<td>D10 Customer reach</td>
<td>Increase of own</td>
<td>Product introduction on</td>
<td>Learning, discussions with domestic</td>
<td>Competence &amp;</td>
<td>Sources</td>
<td>Post-creation</td>
</tr>
<tr>
<td></td>
<td>capacity (human and</td>
<td>international exhibition</td>
<td>retailers</td>
<td>experience</td>
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<tr>
<td></td>
<td>financial)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>D11 Creation of a Design venture (2000)</td>
<td>Need to distinguish</td>
<td>Own company for products</td>
<td>Start-up of new company (Ltd.)</td>
<td>Mode of</td>
<td>Exploitation</td>
<td>Venture creation</td>
</tr>
<tr>
<td></td>
<td>change of business</td>
<td></td>
<td></td>
<td>exploitation &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>focus</td>
<td></td>
<td></td>
<td>outcomes</td>
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<tr>
<td>D12 Building a network organization</td>
<td>Lack of resources to</td>
<td>Outsourced production and</td>
<td>Many years of trial and error to make it</td>
<td>Mode of</td>
<td>Identification &amp;</td>
<td>Post-creation</td>
</tr>
<tr>
<td></td>
<td>expand internally</td>
<td>business routines</td>
<td>work</td>
<td>exploitation &amp;</td>
<td>development &amp;</td>
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<td></td>
<td></td>
<td></td>
<td>outcomes</td>
<td>Exploitation</td>
<td></td>
</tr>
<tr>
<td>D13 International patent and trademark</td>
<td>Learning about product</td>
<td>Intellectual property</td>
<td>Reading, discussions, material testing and</td>
<td>Opportunities &amp;</td>
<td>Identification &amp;</td>
<td>Post-creation</td>
</tr>
<tr>
<td></td>
<td>features, brand</td>
<td>rights, competitive</td>
<td>patenting</td>
<td>development</td>
<td>development</td>
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<tr>
<td></td>
<td>recognition</td>
<td>advantage</td>
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<tr>
<td>D14 Internationalization</td>
<td>Good basic product,</td>
<td>New variations sold</td>
<td>Constant product development</td>
<td>Mode of</td>
<td>Exploitation</td>
<td>Post-creation</td>
</tr>
<tr>
<td></td>
<td>quality assurance</td>
<td>internationally</td>
<td></td>
<td>exploitation &amp;</td>
<td></td>
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</tr>
<tr>
<td>D15 Desire to return to design</td>
<td>Time spent on</td>
<td>Would like to find</td>
<td>Looking for successor</td>
<td>Decision-making</td>
<td>&amp; Outcomes</td>
<td>Post-creation</td>
</tr>
<tr>
<td></td>
<td>operating business, not</td>
<td>someone to operate</td>
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<td></td>
<td>product development</td>
<td>business.</td>
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</table>
Table 23  Process activity descriptions: *Design entrepreneur E*

<table>
<thead>
<tr>
<th>Activity description</th>
<th>Input</th>
<th>Output</th>
<th>Events</th>
<th>Element</th>
<th>Opportunity</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1 Studies in physiotherapy (1996-2002)</td>
<td>Previously a sports massage</td>
<td>Physiotherapist and studies in sports medicine</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
<td></td>
</tr>
<tr>
<td>E2 Working as physiotherapist in Finland and abroad (2002-2003)</td>
<td>Need to create a walking aid</td>
<td>Interest arose to design functional products</td>
<td>Customer's broken leg</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E3 Decision to study industrial design</td>
<td>Physiotherapy did not fully satisfy creative desires</td>
<td>Combining design and physiotherapy</td>
<td>Application to study design</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E4 Industrial design studies (2003-2006)</td>
<td>Acceptance and start of studies</td>
<td>BSc. in industrial design</td>
<td>Studying design</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E5 First products of her own</td>
<td>Course assignments</td>
<td>Prototypes, some 'tested' on exhibitions</td>
<td>One product: read and drew a lot, then suddenly one night she woke up with the idea clear in her mind</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E6 Work practice in a design company</td>
<td>Interesting company to work for</td>
<td>Decision to start her own company in the future</td>
<td>Not a very creative atmosphere, I could do this on my own</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E7 A new product concept during student exchange</td>
<td>Course assignments</td>
<td>A product concept with many different products for sick children</td>
<td>Idea development and concept drawing</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E8 Continuance of physiotherapy</td>
<td>Need to stay in contact with field</td>
<td>Income and understanding of customer needs</td>
<td>Working as a physiotherapist</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E9 Main business idea</td>
<td>Need to focus on something specific: merge skills in physiotherapy and industrial design</td>
<td>To design functional products to ease everyday life</td>
<td>Many product ideas and concepts worked on</td>
<td>Mode of organizing &amp; outcomes</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>E10 Business versus design</td>
<td>Lack of interest and skills related to business, desire to design</td>
<td>Improvement of business skills &amp; desire to find a business partner</td>
<td>Looking for a partner, someone to co-operate with</td>
<td>Decision-making</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th></th>
<th>Table continues from previous page</th>
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<tbody>
<tr>
<td>E11</td>
<td><strong>Tuli-project</strong></td>
</tr>
<tr>
<td>E12</td>
<td><strong>Development of product concept</strong></td>
</tr>
<tr>
<td>E13</td>
<td><strong>Product concept feasibility development</strong></td>
</tr>
<tr>
<td>E14</td>
<td><strong>Co-operation for producing product ideas.</strong></td>
</tr>
<tr>
<td>E15</td>
<td><strong>Product development</strong></td>
</tr>
<tr>
<td>E16</td>
<td><strong>Seeking a business partner</strong></td>
</tr>
<tr>
<td>E17</td>
<td><strong>Work</strong></td>
</tr>
<tr>
<td>E18</td>
<td><strong>Applying for a study place in TAIK</strong></td>
</tr>
<tr>
<td>E19</td>
<td><strong>Future plans</strong></td>
</tr>
<tr>
<td>Activity description</td>
<td>Input</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------</td>
</tr>
<tr>
<td>F1 Arts school</td>
<td>Studies in arts</td>
</tr>
<tr>
<td>F2 Desire for entrepreneurship</td>
<td>Since early childhood</td>
</tr>
<tr>
<td>F3 Application for studies</td>
<td>Desire to work with industrial design.</td>
</tr>
<tr>
<td>F4 Business (international trade and marketing) studies</td>
<td>Need to understand business when working with design.</td>
</tr>
<tr>
<td>F5 Industrial design studies</td>
<td>Need for formal competence industrial design.</td>
</tr>
<tr>
<td>F6 Business versus design</td>
<td>Competence in both disciplines and a systematic way of thinking.</td>
</tr>
<tr>
<td>F7 Own design store (2005-06)</td>
<td>5 years of planning own store</td>
</tr>
<tr>
<td>F8 Operating own store</td>
<td>Challenges related to store maintenance and order supply.</td>
</tr>
<tr>
<td>F9 Closes own store</td>
<td>Unprofitability, constant worry, and not enough time for own design.</td>
</tr>
</tbody>
</table>

*The table continues on the next page*
<p>| F10 | The idea of design service provision | Unexpected request for design services. Relatively easy to change business focus, having previous experience and contacts from operating her own store. | Continuation of service provision for company clients, since there is a demand for it. Much lower operation costs, no given business hours. | Customer contacting and negotiations. | Opportunities &amp; identification | Identification &amp; development | Post-creation |
| F11 | Offering industrial design as a service | Project-based work. Easier to sell services, having a company name with a history. | Clients get a professional impression. | Mode of organizing &amp; outcomes | Exploitation | Venture-creation |
| F12 | Negotiations and contracts | Challenging to agree upon everything upfront, when many things depend on visions and creativity. Who is the final decision maker? | Formal contracts and discussions with client representatives during the process. | Decision-making | Identification &amp; development | Venture-creation |
| F13 | Identification of ideas | The ideas derive mostly from identifying a client group with a need, or vice versa. | A considerable number of product and business ideas waiting to be developed. | Idea development often need-driven, and not necessarily business-oriented from the start (profitability still central). | Opportunities &amp; identification | Identification &amp; development | Post-creation |
| F14 | Collaboration | Need to find producers for her own products. | Production of own product. Own store limited time to develop idea until now. If production starts, then need for a business associate (i.e. own sister). | Currently looking for appropriate producers, also foreign. | Mode of organizing &amp; outcomes | Exploitation | Post-creation |
| F15 | Possibility for partnership | Not always so easy to operate one's own business. | Not so easy to ensure constructive work with someone else. Desire for freedom. | Looking around actively for partners. Discussions with own sister. | Mode of organizing &amp; outcomes | Exploitation | Post-creation |
| F16 | Future plans for service provision | Desire for more stable times. | Fundaments for growing sound business, together with good collaborative parties. | Work more as an organizer of events, not as the realizer. | Mode of organizing &amp; outcomes | Exploitation | Post-creation |
| F17 | Future plans for her own products | Many ideas to develop | It is possible to combine service provision with one's own products. | Recent discussions with manufacturers and marketers. | Opportunities &amp; identification | Exploitation | Post-creation |</p>
<table>
<thead>
<tr>
<th>Activity description</th>
<th>Input</th>
<th>Output</th>
<th>Events</th>
<th>Element</th>
<th>Opportunity</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 Studies in construction drawing</td>
<td>Need to study something on the side of a prospering sports career.</td>
<td>Work as a construction drawer (one year)</td>
<td>One year education. Accident forces abandoning of professional sports permanently.</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G2 Started to work in an advertising agency</td>
<td>Brother hinted at work opportunity</td>
<td>Started to work as advertising drawer.</td>
<td></td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G3 Marketing studies</td>
<td>Need to increase competence in the field.</td>
<td>Marketing diploma</td>
<td>Course participation</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G4 Quitting work as an AD</td>
<td>After working for 10-12 years, the PC was increasingly used in advertising work.</td>
<td>Lack of teamwork</td>
<td>PC made the work experience unsocial.</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G5 Application for education in handicraft-design</td>
<td>Willingness to do something else.</td>
<td>B.Sc., willingness to continue studies.</td>
<td>4 years of studies</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G6 Application for education in industrial design</td>
<td>Acceptance to Talk</td>
<td>M.Sc.</td>
<td>2 years of studies</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G7 Product innovation</td>
<td>Course assignment</td>
<td>New production-related innovation.</td>
<td>Participation in a material processing course.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G8 Patenting process</td>
<td>University wanted experience and was ready to support the patenting process.</td>
<td>University lent money for the process as a loan, which the innovator could pay back afterwards.</td>
<td>Patenting process in co-operation with university.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G9 Purchase of patent</td>
<td>Paid patenting expenses to the university.</td>
<td>Had no customers ready.</td>
<td>Final school assignment on show in selected places.</td>
<td>Decision-making</td>
<td>Exploitation</td>
<td>Pre-venture</td>
</tr>
<tr>
<td>G10 Initial Business idea and founding a trade name</td>
<td>Own innovation: Desire to work with creativity and design of products.</td>
<td>Initial production and marketing contacts.</td>
<td>Design of products (volume production, but also artefacts).</td>
<td>Mode of exploitation &amp; outcomes</td>
<td>Exploitation</td>
<td>Venture-creation</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>G12 Artefacts</th>
<th>Customer demand for variation and desire for creativity.</th>
<th>Most production work done inhouse, willingness to focus increasingly on production of these. A company markets artefacts.</th>
<th>Opportunities &amp; identification</th>
<th>Identification &amp; development</th>
<th>Post-creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G13 Volume products</td>
<td>Need for stable income.</td>
<td>Secures income: royalties based on a fixed sum not percentage of sales. Production and marketing outsourced.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Post-creation</td>
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<tr>
<td>G14 Raw-material as a risk factor</td>
<td>Currently large producer, which has indicated that it may cease its production in the future.</td>
<td>A small potential need for a new supplier, which is hard to find.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
<td>Post-creation</td>
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<tr>
<td>G15 Potential for merging studios with an advertising agency</td>
<td>Lonely to work constantly alone, unsuitable to have office and workshop in one space.</td>
<td>Need for social contact and more appropriate space, but sharing space brings limitations.</td>
<td>Discussion on merging studios</td>
<td>Exploitation</td>
<td>Post-creation</td>
</tr>
<tr>
<td>G16 Further development of volume products</td>
<td>Market demand and own creativity.</td>
<td>Variations of existing product design or product technology. Sensible to separate the introduction of new products, due to customer adaptation.</td>
<td>Developing product features as far as possible, to suit volume production. Close co-operation with manufacturer and marketer.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
</tr>
<tr>
<td>G17 Work without a long term strategy</td>
<td>Short timespan focus</td>
<td>Desire to be free and work with creativity in many ways.</td>
<td>Develop the product concept to a more complete entity, which someone would become interested in.</td>
<td>Mode of exploitation &amp; outcomes</td>
<td>Exploitation</td>
</tr>
<tr>
<td>G18 The potential of selling the business</td>
<td>Own store/shop selling these products, 1-2 employees in design company</td>
<td>Sell the business (patent) to the highest bidder.</td>
<td>Mode of exploitation &amp; outcomes</td>
<td>Exploitation</td>
<td>Post-creation</td>
</tr>
<tr>
<td>G19 Future aim</td>
<td>Financial security, work primarily with design and artefacts</td>
<td>Closer client contact</td>
<td>Mode of exploitation &amp; outcomes</td>
<td>Exploitation</td>
<td>Post-creation</td>
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<td>Activity description</td>
<td>Input</td>
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</tr>
<tr>
<td>H1 Studies in humanities</td>
<td>Studies at university</td>
<td>No final degree.</td>
<td></td>
<td>Competence &amp; experience</td>
<td>Sources</td>
</tr>
<tr>
<td>H2 Professional education</td>
<td>Interest in becoming a pilot</td>
<td>Aeroplane pilot</td>
<td></td>
<td>Competence &amp; experience</td>
<td>Sources</td>
</tr>
<tr>
<td>H3 Interest in design</td>
<td>Interested in drawing and designing products</td>
<td>Not necessary to study design, to practice it.</td>
<td>Design as a hobby since childhood</td>
<td>Competence &amp; experience</td>
<td>Sources</td>
</tr>
<tr>
<td>H4 Business idea</td>
<td>Interest in design and boats</td>
<td>Combine design and boat industry</td>
<td>Finalize design sketches, then produce a prototype, and then start production.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
</tr>
<tr>
<td>H5 Co-operation</td>
<td>Participation in design-related business programme</td>
<td>First design and producer contacts.</td>
<td>Product conceptualization and early negotiations</td>
<td>Competence &amp; experience</td>
<td>Exploitation</td>
</tr>
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<td>H6 Initial product development</td>
<td>Customer needs</td>
<td>Initial product sketches.</td>
<td>Mapping needs and demands among customers.</td>
<td>Opportunities &amp; identification</td>
<td>Identification &amp; development</td>
</tr>
<tr>
<td>H7 Founding a company</td>
<td>In order to get government support for product development.</td>
<td>No need to found company before money moves.</td>
<td></td>
<td>Decision-making</td>
<td>Exploitation</td>
</tr>
</tbody>
</table>


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