



# Improvisation in internationalization decision-making: The critical role of entrepreneurs in SMEs

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## ABSTRACT

Entrepreneurs of international small and medium enterprises (SMEs) are continuously making decisions in ever-changing foreign market environments. To capture these dynamics, this study addresses the following research questions: (1) What effect do entrepreneurs' international competences have on improvised decision-making in SMEs' international market performance? and (2) What is the role of the entrepreneur's experience in this relationship? We build a model and postulate hypotheses for the improvised decision-making of young international SMEs building on the learning school of decision theory. We contribute theoretically to the decision-making view on internationalization by arguing for the importance of improvised internationalization decision-making at the level of individual entrepreneurs for the international market performance of the firm, and that these decisions are influenced by their competences (international alertness, self-efficacy, and preparedness), and the performance outcomes are contingent upon both entrepreneurial and managerial experience. Hence, we advance also international business research by examining the micro-foundations of SME internationalization. In addition, we contribute empirically by gaining support for our hypotheses in a survey consisting of 218 entrepreneur-led young international SMEs. We conclude with managerial and policy implications and future study directions.

## 1. Introduction

How do entrepreneurs make decisions in ever-changing foreign market environments? Dealing with this question, several scholars show internationalization decisions solely based on the execution of known routines and planning are rarely possible (e.g., Chandra, 2017; Coviello, 2006; Crick & Spence, 2005; Kiss, Danis, Nair, & Suddaby, 2020). While planning can be pertinent, studies indicate decisions made by entrepreneurs and/or managers of international small and medium enterprises (SMEs) are often unstructured and *ad hoc*, finding that a reliance only on planning undermines creativity and discourages novel ideas (Bingham, 2009; O'Toole et al., 2021). This view is also supported by proponents of the learning school of decision theory (Brews & Hunt, 1999; Brinckmann et al., 2010; Wiltbank et al., 2006). From this perspective, in unfamiliar and dynamic contexts such as international

markets, entrepreneurs often learn, design, and execute novel strategies in the moment (Hmieleski, Corbett, & Baron, 2013; Nemkova et al., 2015). For this reason, several scholars emphasize the need to research improvisation as a basis for decision-making during SME internationalization (Bingham, 2009; Evers & O'Gorman, 2011; Hilmersson et al., 2022; Prashantham & Floyd, 2012).

With the emphasis on spontaneity, creativity, and action (Vera & Crossan, 2004; Cunha, Cunha, & Kamoche, 1999; Miner, Bassoff, & Moorman, 2001), improvisation is defined as "the action-orientation and determination of individuals toward achieving goals and solving problems in the moment" (Hmieleski & Corbett, 2006, p. 51). Improvisation is often mentioned in conjunction with emergent strategies, innovation, and serendipity. While these concepts can be related, there are essential differences between them. It is exactly the simultaneity of design and implementation as well as the deliberateness of proactive

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adaptability that makes improvisation distinct from emergent strategies (Eisenhardt, 1997), which typically evolve incrementally over time without deliberate intent and arise from pre-existing patterns in firms' actions and decisions (Mintzberg & Waters, 1985). In addition, while improvisation and innovation are interconnected, they are also distinct. Innovation is generally a more structured and systematic process of creating novel solutions, whereas improvisation concerns immediate on-the-spot problem-solving (Vera & Crossan, 2005). Finally, improvisation is not serendipity (Fultz & Hmieleski, 2021). While serendipity implies a search effort, it relates to "making a discovery, by accident and sagacity, of things not in quest of" (Dew, 2009, p. 735). Improvisation, in contrast, is an act of performing without preparation, which involves quick thinking, adaptability, and skilful navigation in the moment (Hmieleski & Corbett, 2006; Vera & Crossan, 2004).

The internationalization literature has only a handful of studies addressing improvisation directly when examining decisions to expand to new international markets (e.g., Bingham, 2009; Hohenthal, Johanson, & Johanson, 2003; Prashantham & Floyd, 2012). However, these either look at established and resourceful multinationals (Stendahl, Tippman, & Yakhlev, 2022) or are qualitative in nature (Chetty, Gabrielsson, & Gabrielsson, 2024). Hence, improvisation has attracted limited attention in relation to the entrepreneurs of young international SMEs (Hilmersson, Johanson, Papaioannou, & Lundberg, 2022; Nemkova et al., 2015). This is striking because these types of firms often suffer from a challenging setting characterized by several liabilities such as newness which is reflected in decision-making inexperience, smallness which is visible in often limited resources for planning, and foreignness which forces them to make decisions in an uncertain international environment (Child & Hsieh, 2014; Elbanna, Hsieh, and Child, 2020; Zahra, 2005). All these raise the importance of studying the effectiveness of SMEs' improvised internationalization decision-making approaches.

In addition, despite emerging attention to entrepreneurs' individual characteristics in the internationalization literature (Engel, Ramesh, & Steiner, 2020; Fang, Siau, Memili, & Dou, 2019; Warnick, Kier, LaFrance, & Cuttler, 2021), extant research does not discuss what these international competences are at the level of an individual entrepreneur and how they relate to improvised internationalization decision-making and performance (Knight & Kim, 2009). While firm-level studies have advanced considerably our understanding on improvised internationalization decisions (Evers & O'Gorman, 2011; Bingham, 2009; Prashantham & Floyd, 2012), the connection between the individual competences of entrepreneurs and the resulting international market performance of their SMEs through improvised internationalization decision-making remains unclear. Improvised internationalization decision-making encompasses unique risks and challenges requiring competencies different from the domestic context as it deals with issues such as country-specific and international-oriented operation mode selection and specific cross-cultural management challenges (McDougall, Oviatt, & Shrader, 2003; Pidduck et al., 2022). In addition, previous research indicates entrepreneurial and managerial experiences are distinct and, thus, affect the decision-making-performance relationship differently (Dane, 2010; He, Bai, Gao, & Xie, 2020; Hmieleski & Corbett, 2006). Taken further, if entrepreneurs of internationalizing SMEs employ improvisation as their decision-making approach, we do not know whether the varying degrees of their accumulated entrepreneurial and managerial experience would also affect international market performance in a positive manner.

Given these identified research deficiencies, this article addresses the following research questions: (1) What effect do entrepreneurs' international competences have on improvised decision-making in SMEs' international market performance? and (2) What is the role of the entrepreneur's experience in this relationship? To address these research questions, we conducted an empirical study based on 218 entrepreneurial young international SMEs. We focused on the individual entrepreneur's improvised internationalization decision-making, and their

international competences. Also, we tested the potential moderating effect of the entrepreneur's experience to examine their impact on the importance and satisfaction with their specified international market performance goals. We conducted our study on young international SMEs because this is a fertile context to study internationalization decision-making as these types of firms often lack resources and do not have a lengthy operating history (Oehme & Bort, 2015). Also, their entrepreneurs are expected to be open to improvised decision-making (Chetty et al., 2024; Hilmersson et al., 2022). Moreover, the entrepreneur's role in internationalization decisions can be expected to be most important in young SMEs, as they often retain decision-making control (Wasserman, 2017). Furthermore, the studied firms originate from Finland, which is a small and open economy. This context is characterized by the small domestic market with intensive international competition. These conditions, combined with the availability of other large and predominantly open markets both within and outside Europe, compel SMEs to internationalize intensively (Baldauf, Cravens, & Wagner, 2000), thus making it a suitable context for our investigation.

The study makes theoretical, empirical, and methodological contributions. *First*, it enriches theoretically the decision-making view on internationalization (Aharoni, Tihanyi, & Connelly, 2011; Buckley & Casson, 2019) by specifically emphasizing its emerging and unintended aspects (Crick & Spence, 2005; Kiss et al., 2020). Following the learning school of decision theory (Brinckmann et al., 2010; Nemkova et al., 2015), we propose that improvised internationalization decision-making is an important mediator between international entrepreneurial competences and international market performance. Hence, under the complex and changing conditions of internationalization, entrepreneurs' decision making should be prospective and emergent based on learning occurring in the moment of action. Therefore, improvisation is essential in SME internationalization decision-making and their competitiveness. *Second*, we develop conceptually entrepreneurs' international competencies (international alertness, international self-efficacy, and international preparedness) and find they are important micro-level characteristics influencing their SMEs' improvised internationalization decision-making. Thus, while not discarding extant firm-level research, we embrace individual entrepreneurs as the focal agents of internationalization (Arikan & Shenkar, 2022). We also take a step forward and create linkages between other individual-level characteristics, particularly entrepreneurial and managerial experience, and improvised decision-making, as well as the firm-level measure of international market performance. These connections are essential because they are at the core of the bounded rationality concept fundamental for understanding internationalization (Johanson & Vahlne, 1977, 2009; Santangelo et al., 2024). We respond to growing calls in internationalization research to examine "the processes at the *mille-micro* level, i.e., the level of individuals" (Vahlne & Johanson, 2017, p. 1089) and place more attention on the more "nested" heterogeneity of micro-level details of internationalization choices (Boustanifar, Zajac, & Zilja, 2022; Coviello, Kano, & Liesch, 2017; Santangelo, Phene, Coviello, Tung, & Felin, 2024). *Third*, as the theoretical conceptualizations described above were synthesized into a model that was subsequently tested, our article offers an important empirical contribution. This testing paves the way for related methodological and empirical advancements. Specifically, the empirical testing required the development of measures tailored to the "international" context of entrepreneurial competencies examined in this research area. Moreover, the testing revealed a significant empirical finding: improvised internationalization decision-making mediates the relationship between international entrepreneurial competencies and international market performance, with novel moderating effects associated with entrepreneurial and managerial experience.

## 2. Theoretical foundations and hypotheses

### 2.1. Entrepreneurs' competences and their internationalization decision-making in young international SMEs

Decision-making represents an extremely complex and multi-faceted phenomenon which intersects different theoretical perspectives and has a long history in internationalization research (Aharoni et al., 2011; Elbanna, Hsieh, & Child, 2020). However, its focus has been predominantly on firm-level processes to date (Petrou, Hadjielias, Thanos, & Dimitratos, 2020; Younis & Elbanna, 2022). While this level of analysis is essential, studies on internationalization decision-making have not realized their full potential due to being "subsumed in the category of transaction costs" (Buckley & Casson, 2019, p. 1437). Research in this area has largely omitted individual decision-makers with mental models, personality traits, and experiences (Aharoni et al., 2011; Niitymies & Pajunen, 2020).

It is exactly the focal role of an individual entrepreneur that makes a significant difference in the internationalization decision-making processes of young international SMEs compared to larger MNEs (Elbanna, Hsieh, & Child, 2020). First, young international SMEs typically have simpler organizational structures, allowing for swift decision-making by a single individual—often an entrepreneur—in contrast to the more complex decision-making processes found in larger MNEs (Child & Hsieh, 2014). Second, the entrepreneur's personal characteristics and preferences play a central role in SMEs, heavily influencing decisions, whereas MNEs rely more on formalized processes (Child & Hsieh, 2014; Engel, Ramesh, & Steiner, 2020; Fang, Siau, Memili, & Dou, 2019; Warnick, Kier, LaFrance, & Cuttler, 2021). Third, due to the smaller size of young international SMEs, entrepreneurs often face resource and information constraints. These limitations can lead them to make decisions driven more by immediate resource availability than by systematically established goals (Child & Hsieh, 2014). Consequently, entrepreneurs depend more on market networks and non-equity operations such as exporting to mitigate information asymmetry, in contrast to MNEs, which typically rely on internalized operations in foreign markets based on foreign direct investment (FDI) for analysis and goal setting (Elbanna, Hsieh, & Child, 2020; Knight & Liesch, 2016).

Hence, entrepreneurs' individual characteristics are central to the decisions they make (Baron, 2004), including opportunity assessment, venture creation, and firm growth (Mitchell, Busenitz, & Bird, 2007; Mitchell, Busenitz, Lant, McDougall, Morse, & Smith, 2002). Studies in this area indicate that internationalization decisions are subject to entrepreneurs' perceptions (Krueger, 2000), stereotypes (Fang, Siau, Memili, & Dou, 2019), regulatory efforts (Tumasjan & Braun, 2012), emotions (Engel, Ramesh, & Steiner, 2020; Indy, Jinia, & Roy, 2020), and passions and experiences (Warnick, Kier, LaFrance, & Cuttler, 2021) developed through reflections on information from the macroeconomic environment. Furthermore, these individual characteristics are boundedly rational and bear cognitive limitations as well as constrained schemas that do not always allow for rational decisions and optimized choices (Simon, 1991), the possibility of which is even lower under the high uncertainty of entering foreign markets (Bingham, 2009; Coviello, 2006; Prashantham & Floyd, 2012). Hence, as advocates of the learning school of decision theory suggest, in internationalization decisions, entrepreneurs focus on learning flexible and adaptive ways to respond to uncertainty (Nemkova et al., 2015) and must develop various internationally-focused competences (De Clercq et al., 2012; Knight & Kim, 2009).

There are three particularly important international entrepreneurial competences that serve as essential antecedents for internationalization decision-making: *international alertness*, *international self-efficacy*, and *international preparedness*. The first, international alertness, is seen as an important individual competence influencing decision-making (Ardichvili, Cardozo, & Ray, 2003; Kirzner, 1973, 1979; Shane, 2003). It triggers learning about foreign markets as it enables scanning and

searching for information, allows the connection of previously disparate information, and permits evaluations leading to profitable business opportunities (Tang et al., 2012) – all of which are essential to identify internationalization opportunities in foreign markets. Notably, this continuous learning approach enhances the overall entrepreneurial alertness process (Zhao, Yang, & Hughes, 2021). We follow Gaglio and Katz (2001, p.96) and define international alertness as an entrepreneur's "*distinctive set of perceptual and cognitive processing skills that direct the opportunity identification process [in international markets].*"

Furthermore, other studies show the second antecedent, self-efficacy, is an essential competence because an entrepreneur's confidence to accomplish a task (Hsu, Burmeister-Lamp, Simmons, Foo, Hong, & Pipes, 2019; Luthans & Ibrayeva, 2006; Stevenson, Ciuchta, Letwin, Dinger, & Vancouver, 2019) directly influences their internationalization intentions and decisions. Also, entrepreneurial self-efficacy and learning reinforce each other such that entrepreneurs with high self-efficacy feel more confident in their abilities, thus encouraging them to seek out new learning opportunities. Through this perspective, entrepreneurs enhance their knowledge and skills, which further boosts their self-efficacy (Chen, Greene, & Crick, 1998; Khedhaouria, Gurău, & Torrès, 2015). In this study, we follow Zhao, Seibert, and Hills (2005, p. 1265) who indicate that international self-efficacy is defined as "*an individual's confidence in his or her ability to successfully perform entrepreneurial roles and tasks [related to international activities].*"

In line with the learning school, several scholars discuss the essential role of internalizing (e.g., gathering and assessing) information available about foreign markets, converting it into knowledge usable by the firm, and, based on this informedness, developing a company's readiness for internationalization (De Clercq et al., 2012; Liesch & Knight, 1999). While this can be derived as a firm-level competence, in this study we shift it to the individual and use the term *international preparedness*. We derive it following Huber's (1991) assumption that organizational learning is inherently an interpersonal process and that organizations learn when any of its members acquire knowledge. This provides the conceptual basis to bridge individual- and firm-level learning. We build on Huber's (1991) notion that firm-level decisions are greatly influenced by the founding entrepreneur(s) and their international preparedness. Research has discussed the entrepreneur's role in searching for information during internationalization only in a limited fashion (De Clercq et al., 2012, p. 148). In fact, the entrepreneur may acquire information through a wider search of the external environment, searching in a narrow segment, or conducting performance monitoring (Huber, 1991). Thus, they may increase their international preparedness by conducting systematic analyses of the international environment, developing options, and evaluating the possible opportunities (Bailey, Johnson, & Daniels, 2000). Therefore, we define international preparedness as *an entrepreneur's state of informedness on foreign market(s), and on the means for entering and penetrating them based on knowledge acquisition, analyses, and assessment during internationalization*. While other studies also developed various international business competences (e.g., Knight & Kim, 2009), they relate to the firm level. In contrast, our new construct examines the individual level and, therefore, is congruent with entrepreneurial alertness and self-efficacy.

### 2.2. Improvisation in internationalization decision-making

SMEs' internationalization decisions have been characterized by specific modes. Child and Hsieh (2014) distinguish four such modes based on the information scope and explicitness used in the decision-making process: reactivity, incrementalism, bounded rationality, and real options reasoning. However, we are particularly interested in a decision-making approach not covered by this classification—one based on improvised internationalization. While this approach has gained some attention at the firm-level (Evers & O'Gorman, 2011; Bingham 2009; Prashantham & Floyd, 2012), it has been scarcely studied at the individual entrepreneur level in the context of young

international SMEs (Elbanna, Hsieh, & Child, 2020), despite qualitative research indicating that it is a common practice in such firms (Chetty et al., 2024). Improvisation has in-the-present qualities which implies convergence between design and action (Cunha, Cunha, & Kamoche, 1999; Miner, Bassoff, & Moorman, 2001) and “on the spot, at a time when action can still make a difference,” according to Weick (1996, p. 147). Based on Nemkova et al. (2015), there are three components to make decisions improvisational: *spontaneity*, *creativity*, and *action orientation*. Spontaneity emphasizes it is an extemporaneous, unpremeditated, and unplanned unprompted process (Vera & Crossan, 2004). Moreover, improvised decisions have a vivid creativity component leading to innovative and unique features of the decision’s outcome (Ott, Eisenhardt, & Bingham, 2017). Finally, action orientation emphasizes the operative execution of improvised decisions rather than simply analysis and reflection (Miner et al., 2001).

In addition, it is important to highlight the relation of improvisation to effectuation (Sarasvathy, 2001) and international entrepreneurial orientation (Covin & Miller, 2014; Covin & Slevin, 1989). While these issues deal with entrepreneurial actions under uncertainty, they differ fundamentally in their theoretical orientation and process logic. Effectuation is a structured and logical approach to control an unpredictable future that follows several inter-related principles (starting with means, affordable loss, leveraging contingencies, and stakeholder co-creation) (Sarasvathy, 2001). In contrast, improvisation involves minimal rules and structures, relying on exploration and learning within an uncertain environment rather than attempting to control it (Crossan, Cunha, Vera, & Cunha, 2005; see Archer, Baker, & Mauer, 2009 for a detailed comparison). Furthermore, international entrepreneurial orientation refers to a firm’s long-term strategic posture in entering international markets, reflecting its overall innovativeness, risk-taking, and proactiveness in pursuing international markets (Covin & Miller, 2014; Covin & Slevin, 1989; Knight & Cavusgil, 2004). This stands in sharp contrast to the more unintentional nature of improvisation, which can also occur at the level of the individual entrepreneur (Crossan, Cunha, Vera, & Cunha, 2005).

While improvisation has been accepted as a valid approach to strategy formation and decision-making (Crossan et al., 2005; O’Toole et al., 2021; Ott et al., 2017), the internationalization literature mentions it predominantly indirectly and as part of broader discussions related to foreign market entry. For instance, improvisation is seen as an essential element of exploration activities during new market discovery (Hohenthal, Johanson, & Johanson, 2003) or a sudden loss of commitments to the market under turbulence and uncertainty (Hodgkinson, Hughes, & Arshad, 2016; Johanson & Johanson, 2006). Other studies show the networking activities of internationalizing small firms often unfold in an inventive manner on the spot without any predetermined blueprint (Sharma & Blomstermo, 2003). Hence, it is a highly spontaneous and improvisational process (Galkina & Chetty, 2015).

Recent research has started to pay more direct attention to improvisation as a decision-making approach during internationalization (see Web Appendix A). For example, Bingham (2009) finds that improvisation has different effects on internationalization performance at the stages of selecting new markets as well as executing internationalization strategy. Thus, entrepreneurial firms following a more improvisational strategy (e.g., are spontaneous and respond to emerging customer demands) are less successful. Firms that are less improvisational but more deliberate, sequenced, and coherent in their entries to new markets are more successful. Consistent with the learning school of decision theory, Prashantham and Floyd (2012) conceptually recognize improvisation as an essential element of the learning process in young internationalizing firms because they lack the existing capabilities and established routines to make internationalization decisions. Hence, improvisation is fundamentally an unplanned experience which becomes an important mechanism of learning new capabilities and developing new routines in a novel context as a young firm internationalizes.

In a similar vein, Nemkova et al. (2015) examine the choice between

improvisational and planned approaches to export decisions and their effect on performance. They underline improvisation allows for more flexibility as it is associated with responsiveness, adaptiveness, spontaneity, creativity, and action orientation. Also, Hilmersson, Johanson, Lundberg, and Papaioannou (2021) demonstrate that, when entering new foreign market networks, improvisation positively affects the novelty of opportunities and adaptation to new customers and suppliers. Furthermore, it has been shown that improvisation positively mediates the relationship between business unpredictability and market entry performance (Hilmersson et al., 2022).

Importantly, Hilmersson et al. (2022) promote improvisation as the special rationality that decision-makers can learn to prepare themselves for market conditions. Hence, seemingly irrational and unintended, improvisation itself is not serendipity or “betting on hunches”. Rather, improvisation is deliberate and simultaneous design and execution of a novel action (Moorman & Miner, 1998b). Therefore, to improvise or not can be a strategic choice fostered by deliberately developing improvisation capabilities (Conforto, Rebentisch, & Amaral, 2016; Hmieleski et al., 2013; Zhang & Merchant, 2020). Overall, improvisation in internationalization decision-making has been linked to different levels of firm resources and structures (Hilmersson et al., 2022; Nemkova et al., 2015), but we lack an understanding of how it relates to entrepreneurs’ individual international competences. As internationalization decision-making is subject to the knowledge and learning processes of the decision-maker (Knight & Kim, 2009; Liesch & Knight, 1999), we expect these individual competences to influence the entrepreneur’s improvised internationalization decision-making and, subsequently, further impact the international performance of the firm.

### 2.3. Model development and research hypotheses

We expect that entrepreneurs’ international entrepreneurial competences, namely international alertness, international self-efficacy, and international preparedness, are particularly important. This is because they help to, respectively, understand “*how are market environments represented and interpreted in the mind of the entrepreneur such that opportunity identification occurs*” (Gaglio & Katz, 2001, p. 96; Shaver & Scott, 1992) and they “*influence the choices they make, their aspirations, [and] how much effort they mobilize in a given endeavor*” (Bandura, 1991, p. 257) which can be expected to have an effect on firm performance. Moreover, acquisition of appropriate knowledge is essential to successful internationalization (Knight & Kim, 2009; Liesch & Knight, 1999). Thus, our research model assumes that international alertness, self-efficacy, and preparedness have a relationship with the firm’s international market performance. This is particularly relevant in SMEs in which the entrepreneurs are often the key decision-makers (Child & Hsieh, 2014; Wasserman, 2017). However, we postulate these relationships are not direct. More precisely, improvisation as a decision-making approach mediates these relationships (see Fig. 1).

#### 2.3.1. The mediating role of improvised internationalization decision-making

We examine separately the three antecedents mediated by improvised internationalization decision-making, starting with international alertness, followed by international self-efficacy and then international preparedness. With regards to international alertness, a positive relationship between international alertness and SME international market performance can be expected because alert entrepreneurs are able to detect new international opportunities ahead of others due to their more active search for new opportunities and higher ability to connect different information and evaluate its importance (Tang et al., 2012). Scholars have found empirical support for the positive relationship between entrepreneurial alertness and firm performance in the domestic context (Adomako, Danso, Boso, & Narteh, 2018). However, we anticipate the effect of international alertness on SMEs’ international market performance is not direct but mediated by improvised international

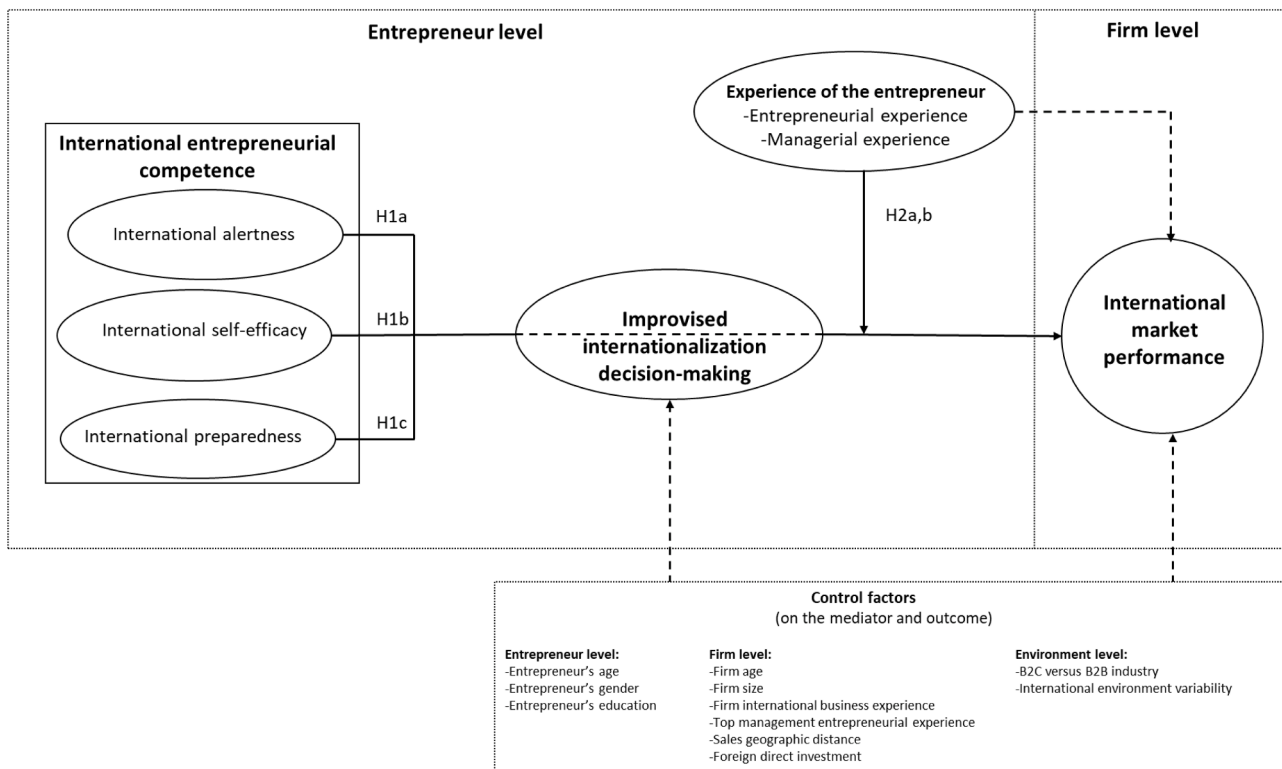


Fig. 1. Model of entrepreneur's improvised internationalization decision-making.

decision-making.

The entrepreneur's alertness is needed to recognize opportunities requiring improvised internationalization decision-making that consequently leads to international market performance outcomes. Thus, we expect that international alertness induces more extensive use of improvised internationalization decision-making. We foresee this effect because alert entrepreneurs have "a distinctive set of perceptual and cognitive processing skills that direct ... opportunity identification" (Gaglio & Katz, 2001, p. 96). As a result, alert entrepreneurs are more sensitive to new international opportunities, link the latest information in a creative way with existing knowledge (Tang et al., 2012), and make decisions in a more original fashion.

Empirical research supports such a link between alertness and innovativeness. For instance, Srivastava, Sahaym, and Allison (2021) find that alertness increases new product introduction rates in SMEs. Tang et al., (2023) discover that entrepreneurial alertness is related to increased innovation capacity, including behavioral patterns to identify solutions to problems and provide more innovative ideas. In addition, alert entrepreneurs can, when associating and connecting information, "move out of the routine track and modify ... categories of their existing means-ends interpretation framework" (Tang et al., 2012, p. 80) which can lead to creative and spontaneous internationalization decisions. It is also expected that entrepreneurs with high alertness can decide promptly about needed actions (Gaglio & Katz, 2001). Therefore, we expect international alertness to lead to the application of improvised internationalization decision-making which emphasizes creativity, spontaneity, and action orientation.

Furthermore, the entrepreneur's improvised internationalization decision-making, key to decisions made in the firm, can be expected to impact the SME's international market performance. However, preliminary empirical evidence shows mixed results. For instance, Hmieleski, Corbett, and Baron (2013) find that improvisation can be an effective form of entrepreneurial action in the domestic context. Further, Souchon, Hughes, Farrell, Nemkova, and Oliveira (2016) find a positive link between spontaneity in export decisions and profitability.

Nevertheless, Nemkova et al. (2015) does not find support for a direct relationship between improvised decision-making and performance. Also, Bingham (2009) concludes that improvisation may be more successful in international market execution in contrast to international market selection. Overall, SMEs' internationalization decisions are often made in a particularly uncertain and complex international environment that requires fast and innovative decision-making, thus making improvisation particularly effective (Souchon et al., 2016).

We expect the elements of improvised decision-making – spontaneity, creativity, and action orientation – induce higher performance. This can be understood from Im and Workman (2004) who found the ability to respond to market changes with creative ideas in products and marketing had a positive effect on market and financial performance. It has also been established that rapid and spontaneous deviation from an original opportunity is crucial in dynamic environments for achieving high performance in young firms (Hmieleski & Baron, 2008). Moreover, action orientation enables firms to address problems arising during internationalization, to grasp emerging opportunities, and to keep focus on economic indicators (Nemkova et al., 2015) which should all result in improved performance. Moreover, improvisation has also been found to have a positive effect on international market entry in empirical studies (Hilmersson et al., 2022). Based on this, we assert that improvised internationalization decision-making acts as a mediator between international alertness and an SME's international market performance. Thus, we posit:

**Hypothesis 1a.** Improvised internationalization decision-making mediates the positive relationship between international alertness and the SME's international market performance.

We now turn to discuss the relationship mediated by improvised internationalization decision-making with international self-efficacy as the antecedent. Entrepreneurial self-efficacy, the belief in one's own ability to perform effectively as an entrepreneur, can affect how persistently and focused one implements entrepreneurial activities (Forbes, 2005a). Thus there may exist a relationship with the SME's

international market performance. Aligning with this, earlier research has found that founders' entrepreneurial self-efficacy has a direct relationship on the overall performance of the firm in the domestic context (Forbes, 2005a; Luthans & Ibrayeva, 2006). Nevertheless, we believe an entrepreneur's international self-efficacy does not have a direct effect on firm's international performance, but this relationship is mediated by the extent of improvised internationalization decision-making. The entrepreneur's international self-efficacy is required to turn their improvised internationalization decision-making to internationalization-related actions and, consequently, performance gains.

Entrepreneurial self-efficacy is expected to lead to improvised international decision-making because their self-efficacy "influence[s] the choices they make, their aspirations, how much effort they mobilize in a given endeavour, [and] how long they persevere in the face of difficulties and setbacks" (Bandura, 1991, p. 257). High entrepreneurial self-efficacy motivates the individual to improvise in internationalization decisions as it gives persistence to the entrepreneur to endure demanding situations and missteps during an improvisational situation (Hmieleski & Corbett, 2008). Self-efficacy of the entrepreneur has also been found to foster a strong and creative culture and help overcome conflicts, an important element for carrying out improvisation (Balachandra, 2019). Moreover, self-efficacy in this context increases an individual's probability to undertake entrepreneurial actions (Schade & Schuhmacher, 2022). This can be understood as an entrepreneur with high self-efficacy is confident about their capabilities and motivated to take actions related to internationalization (Yang, Li, & Wang, 2020). In a cross-national environment, we expect that the entrepreneur must possess international self-efficacy to improvise effectively in decisions related to internationalization.

As discussed in Hypothesis 1a, the application of improvised internationalization decision-making can lead to an SME's increased international market performance in uncertain and turbulent international markets (Souchon et al., 2016). Similarly, we assert that improvised internationalization decision-making acts as a mediator between international self-efficacy and international market performance. We postulate:

**Hypothesis 1b.** Improvised internationalization decision-making mediates the positive relationship between international self-efficacy and the SME's international market performance.

We continue to examine the relationship mediated by improvised internationalization decision-making with international preparedness as the antecedent. The more relevant information acquired about the means of entering international markets, the better prepared the entrepreneur is to begin capitalizing on those opportunities (Liesch & Knight, 1999). Such international business knowledge may be obtained by conducting systematic analyses of the environment, developing options, and evaluating possibilities (Bailey, Johnson, & Daniels, 2000). Additionally, some scholars report they have found a positive relationship between gathering information and acquiring knowledge about international business activities during internationalization and SMEs' international market performance (Kaleka, 2012; Morgan, Kaleka, & Katsikeas, 2004; Morgan, Katsikeas, & Vorhies, 2012). However, we assert that an entrepreneur's international preparedness does not have a direct effect on firm's international market performance, but this relationship is mediated by the extent of improvised internationalization decision-making.

Accordingly, we expect that international preparedness influences improvised international decision-making. This expectation stems from the notion that preparedness is a necessary component for successful improvisation. Indeed, it is widely understood that effective improvisation in musical and dramatic performances requires rich and genuine

formal and/or informal training in a substantial body of work (Berliner, 1994; Crossan, White, Lane, & Klus, 1996). Similarly, prior literature has found that business preparedness can foster improvisation. To improvise in firm decision-making, entrepreneurs must possess substantive skills and knowledge of the business in question (Crossan, White, Lane, & Klus, 1996). Moorman and Miner (1998a, p. 8) conclude that "improvisation appears to arise from the recombination of previously successful subroutines of knowledge and action." In particular, international business knowledge can stimulate an early awareness of international opportunities and inform their comparative assessment (Child & Hsieh, 2014). This can be explained by the usefulness of past international knowledge for resolving ongoing internationalization problems (Jones & Casulli, 2014). For effective improvisation, it is critical the firm can redeploy previous knowledge resources it has gathered to reconfigure international operations to match the path selected with improvised internationalization decision-making (Doz, & Kosonen, 2010; Hughes et al., 2020). This is even more important in uncertain internationalization conditions, in which entrepreneurs are expected to rely on previous international knowledge to manage novelty and complexity (Jones & Casulli, 2014). Therefore, we expect international preparedness to be an important antecedent increasing improvised internationalization decision-making.

As previously examined in Hypotheses 1a and 1b, the use of improvised internationalization decision-making is expected to have a positive effect on the SME's increased international market performance in uncertain international markets (Souchon et al., 2016). Therefore, we contend that improvised internationalization decision-making acts as a mediator between international preparedness and international market performance. We postulate:

**Hypothesis 1c.** Improvised internationalization decision-making mediates the positive relationship between international preparedness and the SME's international market performance.

### 2.3.2. The moderating effect of entrepreneurial and managerial experience

The influence of improvised internationalization decision-making on the SME's international market performance may be contingent upon certain conditions (Lin, Liu, & Cheng, 2011) such as available human capital in the form of the entrepreneur's experience (Hmieleski & Corbett, 2006). Vera and Crossan (2005) argue improvisation is not necessarily good or bad, but depends on the situation. Therefore, we must examine potential contingency factors that may influence the relationship between improvisation and performance. Scholars have found improvisation requires experience: "[p]ractice, expertise, and knowledge of the rules of collaboration enable team members, both in theatre and firms, to influence the quality of improvisational processes" (Vera & Crossan, 2005, p. 206). We now turn to examine more closely the moderating effect of the entrepreneur's entrepreneurial and managerial experience.

Concerning entrepreneurial experience that may have been gained solely in a domestic context, we expect it facilitates rapid decision-making, a critical feature in improvisation that, by definition, requires the composition and execution of action to converge in time (Moorman & Miner, 1998b). The faster decision-making by experienced entrepreneurs compared to less experienced ones can be explained by their entrepreneur-specific, domain-relevant experience. Forbes (2005b) finds experienced entrepreneurs can use the stock of existing knowledge they already have instead of gathering needed knowledge to enable rapid decisions. Moreover, entrepreneurs are also likely to possess an organizing framework or 'schema' that enables the storage, recall, and interpretation of data without delays (Forbes, 2005b; Politis, 2005).

We also expect entrepreneurs develop key personal characteristics

during venturing, such as tolerance of ambiguity, risk acceptance, spontaneity, and creativity, which increase their ability to successfully improvise in internationalization-related decision-making (Mariano & Lakes, 2024; Morris et al., 2012). Hmieleski and Corbett (2006) confirmed individuals with entrepreneurial experience have a much stronger relationship between improvisation and entrepreneurial intentions than those without such experience, which can be explained by the personal characteristics developed during such activities.

It has also been claimed that experienced entrepreneurs are more knowledgeable about the features of societal infrastructure and the effective utilization of improvisation to achieve entrepreneurial success (Forbes, 2005b). Experienced entrepreneurs have previously faced the liabilities related to newness and smallness, and the associated challenges with lack of legitimacy and resource scarcity (Politis, 2005). They are therefore experienced in making decisions under such conditions, and this experience “increases their ability to cope with the liabilities of newness, learn new knowledge that can be readily redeployed in other ventures, and thereby provide them with the ability to enter into new markets...with greater success” (Politis, 2005, p. 404). Moreover, research has claimed entrepreneurs learn how to recognize and exploit new venture opportunities (Davidsson & Honig, 2003), adopt effective entrepreneurial practices, and process complex information (Brüderl, Preisendörfer, & Ziegler, 1992; Parker, 2013). Such expertise can also stimulate creativity and generate fast and effective heuristics (Chandra, 2017), leading to decision-making resulting in high market performance in uncertain international markets.

In conclusion, even though entrepreneurial experience may not have been learned in an international context, entrepreneurs have acquired generative experiential learning to help them overcome complexities when expanding to international markets. This is due to their ability to better explore and optimize a diversity of market opportunities (Lafuente et al., 2021). Moreover, their entrepreneurial experience has developed personal characteristics that enable improvised decisions requiring creativity, spontaneity, and action orientation (Mariano & Lakes, 2024), as well as the ability to make quick, well-informed improvised internationalization decisions (Forbes, 2005b), leading to increased international market performance. Based on this, we expect entrepreneurial experience enhances the relationship between improvised internationalization decision-making and international market performance. We postulate:

**Hypothesis 2a.** Entrepreneurial experience strengthens the positive relationship between improvised internationalization decision-making and the SME's international market performance.

We turn now to consider the contingency effect of managerial experience on the relationship between improvisation and performance outcomes. Some research finds that managerial experience may facilitate successful improvisation (He, Bai, Gao, & Xie, 2020), while others find that such experience may hinder such outcomes (Hodgkinson et al., 2016). Managerial experience is particularly relevant if the individual can transfer knowledge, defined as “the ability to extend what has been learnt in one context to a new context” (Gary, Wood, & Pillinger, 2012, p. 1230). This makes it possible to draw on past managerial experience and solve the problem at hand based on the experience of solving an analogous problem in the past. There is evidence that managers use analogies from experience to deal with complicated, multidimensional decision problems when making strategic decisions (Gary, Wood, & Pillinger, 2012).

However, finding such structural alignment with previous managerial experience may be difficult in improvised internationalization decision-making, particularly as the decisions often concern a new international context and are made quickly. Extensive managerial experience excluding an international context may lead to knowledge structures that do not capture adequate solutions to the internationalization decision at hand (Domurath & Patzelt, 2019). Moreover, the limited response time available in improvisation leads to the use of

routines that may no longer match the new international market context (Moorman & Miner, 1998a). Because routines are habitual, they may be “detrimental for the value of improvisation in shifting market demands” (Kyriakopoulos, 2011, p. 1058) and lead to decreased international market performance.

Furthermore, recent research claims that prior managerial experience can increase rigidity in entrepreneurs' mental models, particularly when they change to a new firm and encounter new or different ways of running their businesses (Ener, 2019). Domain-specific managerial experience may lead to losing flexibility in problem-solving, adaptation, and creative idea generation (Dane, 2010), as well as less successful entrepreneurial discovery or exploitation of opportunities (Davidsson & Honig, 2003). These qualities are all important for improvised internationalization decision-making to increase international market performance. We forward:

**Hypothesis 2b.** Managerial experience weakens the positive relationship between improvised internationalization decision-making and the SME's international market performance.

### 3. Empirical study

#### 3.1. Design, sample, and procedures

This study follows a survey methodology which earlier studies have relied upon when examining improvisation to focus their effect on international performance (Nemkova et al., 2015). This is a particularly relevant approach when the study investigates the entrepreneur's cognitive characteristics, decision-making, and their relative importance as well as subjective satisfaction with the firm's international performance. In fact, primary measurement sources have been advanced as superior to secondary sources in such a research context, particularly when goalsetting for entrepreneurs differ across firms while international performance is of primary interest (Hult et al., 2008).

The data were collected following procedures recommended by Dillman, Smyth, and Christian (2014). To identify young firms engaged in international activity, we employed tax office records available for research purposes to retrieve information on all firms that were regarded as young (i.e., almost exclusively no more than ten years old) (Winkler, Rieger, & Engelen, 2020, p. 316), qualified as SMEs,<sup>1</sup> were of Finnish origin, and had international sales.

From the original contact base, 1160 firms qualified for our study based on the previously mentioned criteria. Following methodological norms (Haggett & Michell, 1994), we used telephone contact prenotification to verify the most suitable respondents and to increase survey participation willingness. As a result, 542 firms agreed to participate and received a web link to the survey instrument. The number of valid firm responses received was 312. This made the overall response rate 26.9 percent which can be considered adequate. After dropping responses by employees other than the entrepreneur (73), firms no longer active in international business (6), and based on statistical reliability checks (15), the usable number of responses became altogether 218.

The firms in our sample are SMEs, with an average annual sales revenue of 1490.55 thousand euros (median 599,000 euros). On average, they are 6.8 years old (median 7 years). These firms have been operating internationally for an average of 5.5 years (median 5 years) and report sales in an average of 29.7 countries (median 15 countries). Their total sales distribution is as follows: the home country accounts for an average of 50.1 %, the rest of Europe 30.1 %, the Americas 11.5 %, Asia 6.3 %, and the Middle East and Africa 2.0 %. The main international

<sup>1</sup> Concerning the definition of SMEs, we follow the European Union criteria that they employ fewer than 250 persons and have an annual turnover not exceeding 50 million euro and/or an annual balance sheet total not exceeding 43 million euro (European Commission, 2003).

**Table 1**  
Final sample details.

A. Respondent information					
1. Age					
18–25	0.00 %	2. Gender		3. Education level	
26–34	9.63 %	Male	86.70 %	some formal education	12.84 %
35–44	37.61 %	Female	12.39 %	Bachelor's degree	28.44 %
45–54	36.24 %	Other	0.46 %	Master's degree	49.08 %
55–64	13.76 %	not specified	0.46 %	Licentiate/Doctoral degree	9.63 %
65 and older	2.75 %	Total	100 %	Total	100 %
Total	100 %				
4. Experience (years)					
		as manager	as entrepreneur	at current firm	
0–4	9.63 %	12.84 %	15.60 %		
5–9	27.52 %	31.65 %	68.35 %		
10–14	22.48 %	18.81 %	14.68 %		
15–19	15.60 %	13.30 %	0.46 %		
20–24	11.47 %	10.09 %	0.92 %		
25–29	6.42 %	6.42 %	0.00 %		
30–34	4.59 %	4.13 %	0.00 %		
35+	2.29 %	2.75 %	0.00 %		
Total	100 %	100 %	100 %		
B. Firm information					
1. General characteristics					
	Mean	Median	Std. deviation	Minimum	Maximum
Age (years)	6.79	7	2.01	1	11
Annual Sales Revenue (euros, thousands)	1490.55	599	3187.70	5	30,248
Years International	5.47	5	1.98	1	10
Foreign Countries	29.68	15	46.74	1	200
Total Sales. home country	50.07 %	50 %	33.09 %	0 %	100 %
Total Sales. Americas	11.52 %	0 %	21.52 %	0 %	100 %
Total Sales. Asia	6.28 %	0 %	16.97 %	0 %	100 %
Total Sales. Europe	30.12 %	25 %	25.58 %	0 %	100 %
Total Sales. Middle East and Africa	2.00 %	0 %	9.88 %	0 %	100 %
Foreign direct investment operation modes (No = 0; Yes = 1)	0.08	0	0.27	0	1
2. Firm size in employees					
4 employees or less	41.74 %				
5 employees to 9 employees	29.82 %				
10 employees to 19 employees	15.60 %				
20 employees to 49 employees	7.80 %				
50 employees to 99 employees	3.67 %				
100 employees to 249 employees	1.38 %				
Total	100 %				

operation mode used by the firms is exporting and only 7.8 percent use more advanced FDI operation modes, as well. An overview of the final sample can be found in Table 1 to indicate further information on the respondents (e.g., age, gender, education level, and experience) and firms (e.g., age, annual sales, number of employees, years international, number of foreign countries, sales by region, and use of FDI operation mode).

### 3.2. Measures

The antecedent constructs related to international entrepreneurial competence, *international alertness* (Tang et al., 2012), *international self-efficacy* (Zhao et al., 2005), and *international preparedness* (Bailey, Johnson, & Daniels, 2000), the mediating construct, *improvised internationalization decision-making* (Nemkova et al., 2015), and the outcome construct, *international market performance* (Gerschewski, Rose, & Lindsay, 2015), were measured using established scales and adapted to this study's international context. While many of the constructs' original items were retained, some were discarded due to unsatisfactory item loadings in the model's measurement. Particular consideration was given to the content adequacy of the measures, ensuring the selection was theory-driven rather than based on empirical evidence. This meant that, when earlier research theorized improvisation and alertness as second order constructs and international market performance as first order constructs, we followed the same practice (Nemkova et al., 2015). In addition, the international market performance measures were weighted by the levels of importance and satisfaction for each measure following previous studies (Gerschewski et al., 2015). Going further, self-efficacy (Zhao et al., 2005), international preparedness (Bailey, Johnson & Daniels, 2000), and international environmental variability

were first order constructs (Luo & Peng, 1999; Tan & Litschert, 1994). The first order measures are reflective, as the constructs determine their individual items, while the second order structure is of a formative nature as removing any first order construct is not possible without affecting the resulting meaning of the entire construct (Hair et al., 2017). Stated differently, the items of a second order construct, in contrast to a reflective model, determine its overall measurement nature (Diamantopoulos & Winklhofer, 2001).

We included two measures for the experience of the entrepreneur, *entrepreneurial experience* (Kraft, Günther, Kammerlander, & Lampe, 2022) and *managerial experience* (Pagda, Bayraktar, & Jimenez, 2021), using as a measure for each the total years of previous work experience for each category. These were used as moderators for the relationship between the mediator and outcome constructs. Our control variables used on both the mediating and outcome constructs consisted of three types. First, the entrepreneur-tied measures included the entrepreneur's age, in years, gender, as male, female or other, and education, referring to the highest degree achieved (Lafuente et al., 2021). The firm-related measures included firm age, in years, firm size, the logarithm of the number of employees at the firm, firm international business experience, drawing from Schwens et al. (2018), top management entrepreneurial experience, taken from Stuart and Abetti (1990), foreign direct investment, measured as a dummy variable (no = 0; yes = 1) taken from Dees (1998), and an indexed sales geographic distance was calculated as the logarithm of the distance calculated between Finland and the regional average of each region's host country capital city and largest city multiplied by the regional average of each region's host country's gross

domestic product.<sup>2</sup> Then, the environmental-level controls included *B2C* versus *B2B industry*, measured by percentage of sales distribution, and *international environmental uncertainty*, adapted from Luo and Peng (1999) and Tan and Litsschert (1994).

We used a professional translation service to translate and back translate the questionnaire between English and Finnish by two separate individuals. Any discrepancies identified between the versions were addressed and resolved. Web Appendix B summarizes the measurement of the different constructs and their specific items.

## 4. Analysis

### 4.1. Data analysis process

Based on previous studies in international entrepreneurship research (Kusi, Gabrielsson, & Baumgarth, 2022; Lam, Ahearne, & Schillewaert, 2012; Lew, Sinkovics, Yamin, & Khan, 2016; Moreno & Casillas, 2008; Thai & Turkina, 2014), this analysis utilized the partial least squares (PLS) function of structural equation modelling (SEM) to estimate the baseline model as well as the mediation and moderation model. Typically, PLS is used for exploratory theoretical research as it is a less restrictive yet predictive statistical method (Chin, 1998; Hair, Ringle, & Sarstedt, 2011; Henseler et al., 2014). Its algorithm estimates the measurement model as well as the structural model's path coefficients (Vinzi, Trinchera, & Amato, 2010). As exploratory models using PLS are complex, can violate multivariate normality, and sometimes have few observations (e.g., as low as 50) (Chin, 1998; Chin & Newsted, 2000; Hair, Sarstedt, Pieper, & Ringle, 2012; Henseler, Ringle, & Sinkovics, 2009; Reinartz, Haenlein, & Henseler, 2009; Thai & Turkina, 2014), this study's nature and sample size of 218 entrepreneur-led young international SMEs was suitable regarding improvised internationalization decision-making (Sinkovics, Liu, Sinkovics, & Mudambi, 2021). While consisting of three reflective first order dimensions, the international entrepreneurial alertness and improvised internationalization decision-making constructs were formative, indicating PLS is specifically more appropriate for this study than traditional covariance-based SEM (Diamantopoulos, 2011).

#### 4.1.1. Internal reliability and convergent validity

As indicated in Web Appendix B, the reflective constructs in the model with multiple measures had a composite reliability of at least 0.86, thus well above the 0.70 threshold to establish internal consistency (Hair, Risher, Sarstedt, & Ringle, 2019). To support this even further, two items in the environmental variability construct had the lowest loadings in the specified model at 0.70 to show the composite reliability of the included constructs (Fornell & Larcker, 1981). Examining convergent validity, the average variance extracted for the study's constructs were determined (Becker, Klein, & Wetzels, 2012; Hair et al., 2019). In line with accepted practice, the average variance extracted for multi-item constructs ranged from 0.54 to 0.90 and signaled proper convergent validity (Hulland, 1999). Further assessment shows the model meets and/or exceeds accepted internal reliability and convergent validity requirements (Chin, 1998; Hair, Sarstedt, Ringle, & Mena, 2012).

<sup>2</sup> An index was created for each response weighted by the geographic distance and share of sales in each region for each firm in the sample (Wei & Sheng, 2023). The index was calculated based on the logarithm of the geographic or physical distance between Finland and each country's capital and largest cities (Amberger & Kohlhasse, 2023; Yang, Wang, & Zhou, 2025), thus making a weighted statistic for each region (Europe, the Americas, Asia and Oceania, and the Middle East and Africa). To incorporate the differential economic strength of each country in each region, this weighted statistic included the gross domestic product of each country with each regional sales calculation (Li, Wang, Chang, Zhang, Huang, & Wang, 2025).

#### 4.1.2. Discriminant validity

To determine discriminant validity in a specified model, it is necessary to evaluate the level of distinctiveness of each latent construct (Hair, Hult, Ringle, & Sarstedt, 2017). This can be done in at least two ways. One approach is the Fornell-Larcker criterion which evaluates the square root of the average variance extracted for each latent construct with its cross-loadings. For each construct, a square root of the average variance extracted higher than the cross-loadings of the same construct indicates discriminant validity (Fornell & Larcker, 1981; Hair, Black, Babin, & Anderson, 2014). Given the data and cross-loadings, this was confirmed. Another, more accurate approach examines the heterotrait-monotrait ratio of construct correlations (Henseler, Ringle, & Sarstedt, 2015). Web Appendix C shows the construct correlations well below the conservative threshold of 0.85 to determine the constructs benefitted from discriminant validity (Henseler, Ringle, & Sarstedt, 2015). The highest correlations among the constructs in the discriminant validity testing are found between the international self-efficacy and international alertness at 0.692 and improvised internationalizations decision and international alertness at 0.639. Taken together, this indicates the model has discriminant validity among its constructs and are well-defined statistically.

#### 4.1.3. Common method bias

As common method bias could be a problem with this study's specified model, we undertook tests commonly discussed in the literature as appropriate to detect this phenomenon (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Robson, Katsikeas, & Bello, 2008). To begin, we ensured the items for each construct were not ambiguous, were direct, and included uncomplicated and brief terminology, phrases, and sentences to make the instrument as easy as possible to understand and, as a result, support as many responses as possible. Also, an initial pilot study of the instrument among subjects fitting the target population provided opportunities for changes to the original survey and increased its validity (Bryman & Bell, 2015). Then, the study's respondents gave their answers through an online survey that was equipped to not allow for changing answers after section completion and also to effectively inhibit understanding the specified model's form and construct interrelationship (Chang, van Witteloostuijn, & Eden, 2010; Kawai & Chung, 2019).

Four empirical tests for common method bias were performed. We conducted tests for vertical and lateral collinearity using variance inflation factors (Kawai & Chung, 2019; Kock, 2015; Kock & Lynn, 2012), the Harman single-factor test (Podsakoff & Organ, 1986), tests by relating the construct used for international market performance of the firm to objective performance data of the companies in our sample (Robson, Katsikeas, & Bello, 2008), and a PLS marker variable approach by applying the marker variable as an independent variable on each dependent construct in the complete model (Kawai & Chung, 2019). See Web Appendix D for details on these empirical tests. Using all these different approaches, we can determine that risk for common method bias is negligible.

#### 4.1.4. Endogeneity testing

Given the potential for endogeneity among the antecedents in the model (international alertness, international self-efficacy, and international preparedness) due to the possibility of near simultaneous decision-making processes among respondents, the Gaussian copula method was applied (Becker, Proksch, & Ringle, 2022). This approach for testing endogeneity examined each construct as an independent variable on the model's improvised international decisions construct as well as a direct effect on the international market performance measure. None of the coefficient p-values were below the critical 0.05 threshold to establish endogeneity. In fact, as independent variables of improvised internationalization decision-making, the international alertness construct's p-value was 0.334, international self-efficacy's p-value was 0.908, and international preparedness's p-value was 0.316. Meanwhile, relating them as direct influences on international market performance,

the international alertness p-value was 0.389, the international self-efficacy p-value was 0.914, and the international preparedness p-value was 0.367. Taken together, this clearly indicates that endogeneity is likely not a concern in the model.

4.1.5. Non-response bias

Similar to previous studies (Gabrielsson, Gabrielsson, & Seppälä, 2012), we followed standard guidelines concerning non-response bias (Armstrong & Overton, 1977). Respondents in the dataset were split into subsamples of earlier and later subjects. Then, we implemented a time-dependent test by using the median response date and time as the threshold between the earlier and later subsamples. After applying t-tests for statistical comparison to multiple constructs and items, it was calculated that the earlier and later respondents were statistically similar. As a result, it was determined that non-response bias was not likely as there was not a significant difference between the two groups (Armstrong & Overton, 1977).

4.1.6. Structural model predictive relevance: quality of the theoretical model

To measure the coefficient of determination, the R<sup>2</sup> values with international market performance of the firm as the dependent variable increased with each theorized model: 0.368 for the baseline model (see Table 2) and 0.416 for the complete model (mediated model with moderation effects) (see Table 3). In another set of tests, we examined the study's effect sizes to determine the influence of predictor constructs on dependent constructs. More specifically, we calculated each coefficient's f<sup>2</sup> value. As noted in the results, the independent variables in the two models with statistically significant relationships had detectable f<sup>2</sup> values. Then, we evaluated the predictive relevance of each dependent construct using the Stone-Geisser Q<sup>2</sup> value to compare predictive accuracy. The specifics of these analyses are in Web Appendix E. Based on these results, we can determine that our specified models have considerable predictive validity and accuracy.

4.1.7. Model fit

PLS provides indices to measure a specified model's goodness of fit. One approach, the standardized root mean square residual (SRMR), indicates the mean absolute value of the covariance residual. In effect, the SRMR provides a calculation of the difference between the actual correlation in the data and the calculated correlation matrix of the model. To specify a model well, a threshold value of 0.08 or less is conservatively estimated to indicate a good fit (Henseler et al., 2014; Hu & Bentler, 1999). As shown in the results, the SRMR for the complete model was 0.013. This provides one criterion the data are a good fit to the specified model. Another application relates to the normed fit index (NFI) introduced by Bentler and Bonett (1980). Typically, NFI values range from 0 to 1 with a statistic closer to 1 indicating a better fit. As found with the model, its NFI was 0.926 to indicate the data were an acceptable fit as it is well above the 0.90 threshold (Bentler & Bonett, 1980).

4.1.8. Significance testing

To focus on the issue of significance among construct relationships (Hayes & Scharkow, 2013), a bootstrap application with 5000 subsamples was applied (Bollen & Stine, 1990; Shrout & Bolger, 2002). Following standard practice, missing values were found by pairwise deletion (Hsu, Fournier, & Srinivasan, 2016; Little & Rubin, 2002). The approach used guaranteed that data missing from the dataset were deleted and, as a result, a more rigorous sample was applied vis-a-vis using a mean replacement approach (Allison, 2001; Baraldi & Enders, 2010; Hair et al., 2014). The effects of missing data were negligible as none of the latent constructs used for this study's hypotheses had absent observations in the database used.

**Table 2**  
Structural model: Baseline model.

Path Coefficients	Std Beta	STD	t-statistic	p-value	f <sup>2</sup>
International alertness → International market performance	-0.016	0.083	0.193	0.847	<0.001
International self-efficacy → International market performance	0.382	0.072	5.268	<0.001	0.108
International preparedness → International market performance	0.197	0.075	2.648	0.008	0.046
Entrepreneurial experience → International market performance	-0.005	0.086	0.053	0.958	<0.001
Managerial Experience → International market performance	-0.084	0.087	0.970	0.332	0.005
<b>Control Variables</b>					
Entrepreneur's age → International market performance	0.016	0.065	0.248	0.804	<0.001
Entrepreneur's gender → International market performance	-0.041	0.062	0.667	0.505	0.002
Entrepreneur's education → International market performance	-0.001	0.066	0.011	0.991	<0.001
Top management entrepreneurial experience → International market performance	0.080	0.076	1.055	0.291	0.007
Firm international business experience → International market performance	-0.152	0.068	2.243	0.025	0.019
Firm size → International market performance	-0.013	0.068	0.189	0.850	<0.001
Firm age → International market performance	0.070	0.069	1.019	0.308	0.004
B2C sales → International market performance	0.082	0.067	1.219	0.223	0.009
International environment variability → International market performance	0.025	0.062	0.400	0.689	0.001
Sales geographic distance → International market performance	0.209	0.066	3.193	0.001	0.054
Foreign direct investment → International market performance	-0.005	0.201	0.025	0.980	<0.001

**Performance:** R<sup>2</sup> = 0.368. Adjusted R<sup>2</sup> = 0.317. Q<sup>2</sup> = 0.252. **Structural Model:** SRMR = 0.015. NFI = 0.919.

4.2. Results

In this section, we examine the results of the study. In doing so, we reflect on the hypothesis testing conducted in our analysis. Also, an evaluation of the control variables used is presented. Finally, further analysis of the data is conducted to provide additional insight into the results for this study.

4.2.1. Hypothesis testing

Fig. 1 depicts the research hypotheses of this study. The results of the structural model analyses are found in Tables 2 and 3. Before examining the support for our hypotheses, we first determined the relationship between international entrepreneurial competences and international market performance. As indicated in the baseline structural model (Table 2), no significant influence was found between international alertness and international market performance (β = -0.016, t-statistic =

**Table 3**  
Structural model: Complete model (Mediated model with moderation effects).

Path Coefficients	Std Beta	STD	t-statistic	p-value	f <sup>2</sup>
International alertness → International market performance	-0.087	0.082	1.063	0.288	0.005
International self-efficacy → International market performance	0.327	0.080	4.077	<0.001	0.077
International preparedness → International market performance	0.149	0.080	1.865	0.062	0.025
Entrepreneurial experience → International market performance	-0.017	0.082	0.205	0.837	<0.001
Managerial experience → International market performance	-0.059	0.086	0.684	0.494	0.003
International alertness → Improvised internationalization decision-making	0.298	0.068	4.357	<0.001	0.089
International self-efficacy → Improvised internationalization decision-making	0.262	0.069	3.789	<0.001	0.074
International preparedness → Improvised internationalization decision-making	0.248	0.061	4.094	<0.001	0.106
Entrepreneurial experience → Improvised internationalization decision-making	0.042	0.065	0.639	0.523	0.002
Managerial experience → Improvised internationalization decision-making	-0.067	0.067	1.011	0.312	0.005
Improvised internationalization decision-making → International market performance	0.233	0.092	2.545	0.011	0.040
<b>Specific Indirect Effects</b>					
International alertness → Improvised internationalization decision-making → International market performance	0.069	0.032	2.162	0.031	
International self-efficacy → Improvised internationalization decision-making → International market performance	0.061	0.031	1.976	0.048	
International preparedness → Improvised internationalization decision-making → International market performance	0.058	0.026	2.250	0.024	
<b>Moderation Effects</b>					
Entrepreneurial experience X Improvised internationalization decision-making → International market performance	0.251	0.077	3.256	0.001	0.061
Managerial experience X Improvised internationalization decision-making → International market performance	-0.162	0.082	1.970	0.049	0.027
<b>Control Variables</b>					

**Table 3 (continued)**

Path Coefficients	Std Beta	STD	t-statistic	p-value	f <sup>2</sup>
Entrepreneur's age → Improvised internationalization decision-making	0.138	0.061	2.282	0.023	0.023
Entrepreneur's age → International market performance	-0.055	0.070	0.787	0.431	0.003
Entrepreneur's gender → Improvised internationalization decision-making	-0.056	0.052	1.062	0.288	0.006
Entrepreneur's gender → International market performance	-0.047	0.064	0.735	0.462	0.003
Entrepreneur's education → Improvised internationalization decision-making	-0.121	0.053	2.264	0.024	0.031
Entrepreneur's education → International market performance	0.041	0.065	0.629	0.529	0.002
Top management entrepreneurial experience → Improvised internationalization decision-making	0.017	0.051	0.327	0.744	<0.001
Top management entrepreneurial experience → International market performance	0.076	0.079	1.049	0.294	0.007
Firm international business experience → Improvised internationalization decision-making	-0.110	0.062	1.764	0.078	0.014
Firm international business experience → International market performance	-0.103	0.072	1.436	0.151	0.009
Firm size → Improvised internationalization decision-making	-0.013	0.049	0.261	0.794	<0.001
Firm size → International market performance	-0.012	0.065	0.186	0.853	<0.001
Firm age → Improvised internationalization decision-making	0.045	0.058	0.772	0.440	0.002
Firm age → International market performance	0.032	0.068	0.476	0.634	0.001
B2C sales → Improvised internationalization decision-making	-0.036	0.052	0.699	0.485	0.003
B2C sales → International market performance	0.113	0.064	1.761	0.078	0.019
International environment variability → Improvised internationalization decision-making	0.118	0.052	2.249	0.025	0.029
International environment variability → International market performance	-0.040	0.061	0.653	0.514	0.002
Sales geographic distance → Improvised internationalization decision-making	0.050	0.057	0.864	0.387	0.004
Sales geographic distance → International market performance	0.192	0.062	3.117	0.002	0.049
Foreign direct investment → Improvised internationalization decision-making	-0.210	0.185	1.134	0.257	0.007
Foreign direct investment → International market performance	0.065	0.204	0.318	0.751	<0.001

**Performance:**  $R^2 = 0.416$ . Adjusted  $R^2 = 0.359$ .  $Q^2 = 0.265$ . **Improvisation:**  $R^2 = 0.575$ . Adjusted  $R^2 = 0.535$ .  $Q^2 = 0.487$ . **Structural Model:** SRMR = 0.013. NFI = 0.926.

0.193,  $p$ -value = 0.584) and the effect size ( $f^2 < 0.001$ ) was negligible. However, the non-significance and low effect size are acceptable for the direct effect because the critical aspect of our analysis is the indirect effect to establish mediation (Zhao et al., 2010). Then, as indicated in Table 2, the results show that international self-efficacy had a positive statistically significant influence on international market performance ( $\beta = 0.382$ ,  $t$ -statistic = 5.268,  $p$ -value < 0.001) and the effect size was relatively strong ( $f^2 = 0.108$ ). Moreover, we found that international preparedness had a positive significant effect on international market performance ( $\beta = 0.197$ ,  $t$ -statistic = 2.648,  $p$ -value = 0.008) and the effect size was notable ( $f^2 = 0.046$ ).

Then, further tests were conducted to understand the relationship of the mediation and moderation influences (Frazier, Tix, & Barron, 2004; Hair et al., 2017; Zhao, Lynch, & Chen, 2010) as shown in the complete structural model's results (Table 3). This was accomplished by using the international entrepreneurial competences of the entrepreneur as the direct antecedents of the improvised internationalization decision-making construct which acted as the primary mediator to the SME's international market performance. Hypothesis 1a (H1a) proposes improvised internationalization decision-making mediates the positive relationship between international alertness and the SME's international market performance. The results in Table 3 show a significant specific indirect effect ( $\beta = 0.069$ ,  $t$ -statistic = 2.162,  $p$ -value = 0.031). Further, when we inspected the individual path coefficients, we found international alertness had a positive relationship on improvised internationalization decision-making ( $\beta = 0.298$ ,  $t$ -statistic = 4.357,  $p$ -value < 0.001) and included a notable effect size ( $f^2 = 0.089$ ). Then, the influence of improvised internationalization decision-making on the SME's international market performance was positive ( $\beta = 0.233$ ,  $t$ -statistic = 2.545,  $p$ -value = 0.011) and had a notable effect size ( $f^2 = 0.040$ ). However, the direct relationship between international alertness and the SME's international market performance is insignificant ( $\beta = -0.087$ ,  $t$ -statistic = 1.063,  $p$ -value = 0.288) after adding the mediator, similarly compared to the baseline model in Table 2. Therefore, we can conclude full mediation or indirect-only mediation as termed by Zhao and colleagues (2010) exists in support of H1a.

Furthermore, Hypothesis 1b (H1b) states improvised internationalization decision-making mediates the positive relationship between international self-efficacy and the SME's international market performance. We noticed the indirect specific effect is significant ( $\beta = 0.061$ ,  $t$ -statistic = 1.976,  $p$ -value = 0.048). A further inspection of the individual path coefficients showed that the relationships between international self-efficacy and improvised internationalization decision-making was significant ( $\beta = 0.262$ ,  $t$ -statistic = 3.789,  $p$ -value < 0.001) with a notable effect size ( $f^2 = 0.074$ ). The relationship between improvised internationalization decision-making and the SME's international market performance was also significant ( $\beta = 0.233$ ,  $t$ -statistic = 2.545,  $p$ -value = 0.011) with an adequate effect size ( $f^2 = 0.040$ ). The direct relationship between international entrepreneurial self-efficacy and the SME's international market performance stayed significant ( $\beta = 0.327$ ,  $t$ -statistic = 4.077,  $p$ -value < 0.001) despite adding the mediator compared to the baseline model. We can conclude that partial mediation or complementary mediation as indicated by Zhao et al. (2010) is supported for H1b.

Going further, Hypothesis 1c (H1c) predicts improvised internationalization decision-making mediates the positive relationship between international preparedness and the SME's international market performance. We noted this specific indirect effect is significant ( $\beta = 0.058$ ,  $t$ -statistic = 2.250,  $p$ -value = 0.024). A closer inspection of individual path coefficients showed that international preparedness has a statistically significant positive impact on improvised internationalization decision-making ( $\beta = 0.248$ ,  $t$ -statistic = 4.094,  $p$ -value < 0.001)

and included a relatively strong effect size ( $f^2 = 0.106$ ). Moreover, the relationship between improvised internationalization decision-making and the SME international market performance was found significant ( $\beta = 0.233$ ,  $t$ -statistic = 2.545,  $p$ -value = 0.011) with a modest effect size ( $f^2 = 0.040$ ). To complete our assessment, the direct relationship between the international preparedness and the SME international market performance turned non-significant ( $\beta = 0.149$ ,  $t$ -statistic = 1.865,  $p$ -value = 0.062) with a weak effect size ( $f^2 = 0.025$ ) compared to the baseline model in Table 2. Therefore, we can conclude there is full mediation or indirect-only mediation as discussed by Zhao and colleagues (2010) to support H1c.

In subsequent analysis, the moderation hypotheses were tested and both Hypothesis 2a (H2a) ( $\beta = 0.251$ ,  $t$ -statistic = 3.420,  $p$ -value = 0.001) and Hypothesis 2b (H2b) ( $\beta = -0.162$ ,  $t$ -statistic = 1.970,  $p$ -value = 0.049) were supported. More detailed findings related to H2a are found in Fig. 2 in which the positive moderation effect of entrepreneurial experience on the relationship between improvised internationalization decision-making and international market performance is shown with a steep slope increase for the entrepreneur's high entrepreneurial experience versus the very slight slope increase for low experience. This reflects the findings discussed earlier in Table 3. The results focusing on H2b in Fig. 3 with managerial experience moderating the relationship between improvised internationalization decision-making and international market performance indicate a rapid slope increase for the entrepreneur's low managerial experience in comparison with a nearly flat slope for high managerial experience. This provides additional support for the negative relationship identified by this study.

#### 4.2.2. Control variables

Based on the information provided in the complete model (Table 3), there are some noteworthy results relating to the control variables. First, international environment variability positively affected improvised internationalization decision-making ( $\beta = 0.118$ ,  $t$ -statistic = 2.249,  $p$ -value = 0.025). This supports the premise that the higher the environmental uncertainty the more frequently entrepreneurs should apply improvised internationalization decision-making to remain competitive. Second, entrepreneur's age had a statistically significant positive influence on improvised internationalization decision-making ( $\beta = 0.138$ ,  $t$ -statistic = 2.282,  $p$ -value = 0.023) while entrepreneur's education had a statistically significant negative effect on the improvised internationalization decision-making ( $\beta = -0.121$ ,  $t$ -statistic = 2.264,  $p$ -value = 0.031). In short, this indicates that older entrepreneurs with often more experience are generally better at improvising compared to younger entrepreneurs with less experience. Moreover, those entrepreneurs with less education are generally better at improvising compared to more educated entrepreneurs which may relate to studying university curriculum emphasizing the importance of planning. Finally, sales geographic distance had a statistically positive effect on international market performance ( $\beta = 0.192$ ,  $t$ -statistic = 3.117,  $p$ -value = 0.002) which indicates that those that operate at geographically distant markets perform better than those that operate at close markets. None of the other controls were significant.

#### 4.2.3. Further analysis

In our further analysis (see Web Appendix F), we performed several robustness checks of the final complete model and none of the results of the hypothesized relationships changed. Furthermore, we examined and found statistical significance between this study's measurement of performance with substantive accounting-based financial variables. As a result, we can conclude our hypothesized final model is robust.

## 5. Discussion

The entrepreneur's internationalization decision-making encompasses unique risks and challenges requiring different competencies

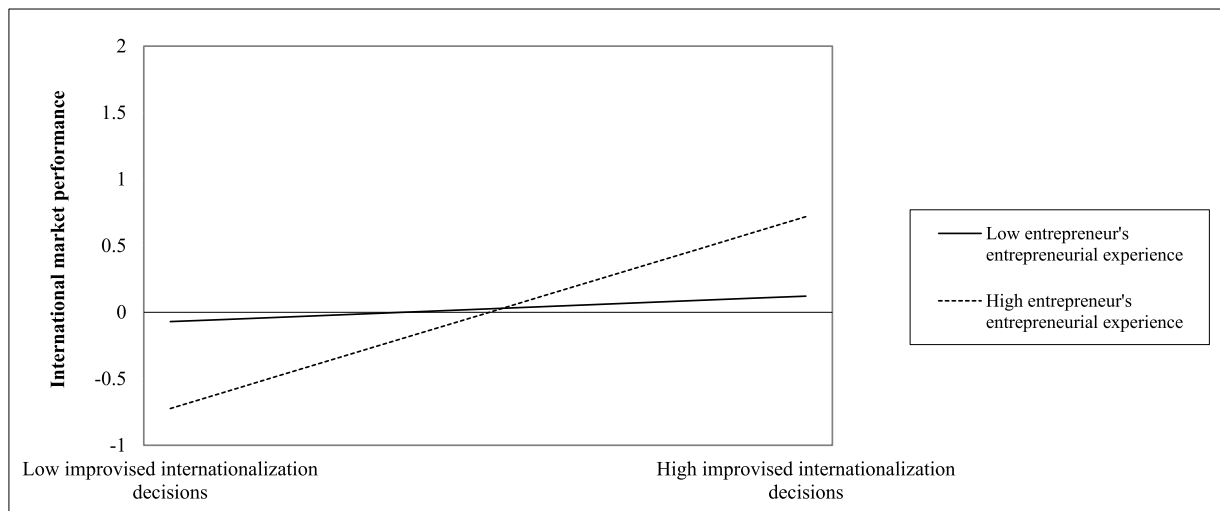


Fig. 2. Moderation effect of entrepreneurial experience on the relationship between improvised internationalization decision-making and international market performance.

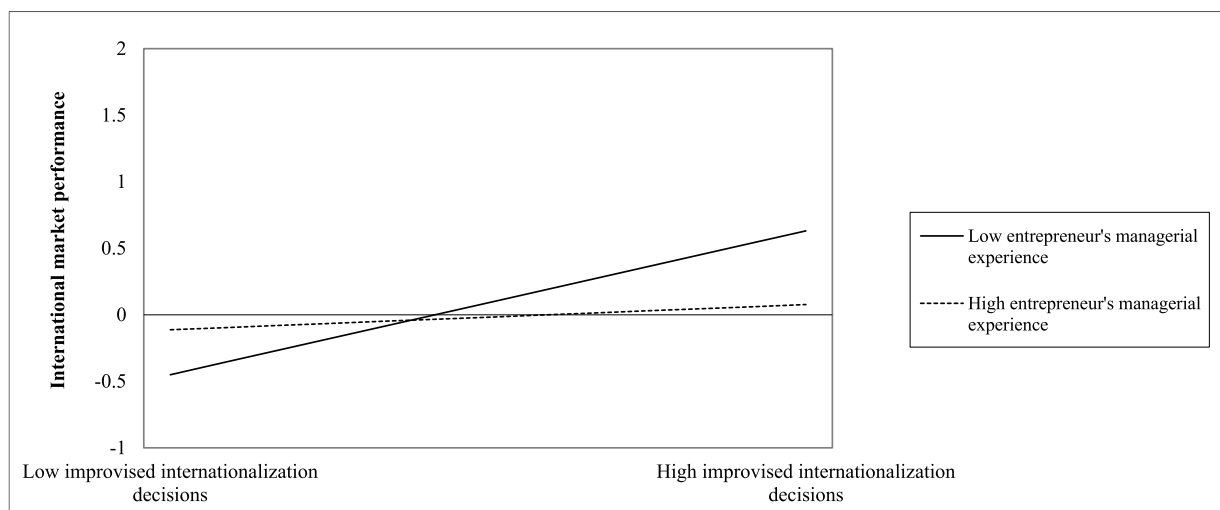


Fig. 3. Moderation effect of managerial experience on the relationship between improvised internationalization decision-making and international market performance.

from the domestic context (McDougall, Oviatt, & Shrader, 2003; Pidduck et al., 2022). Our study shows that international entrepreneurs' competences, particularly international alertness (Gaglio & Katz, 2001; Tang et al., 2012), international self-efficacy (Bandura, 1986; Yang, Li, & Wang, 2020), and international preparedness, are important enablers of improvised internationalization decision-making to have critical ramifications on SMEs' international market performance.

5.1. Theoretical and empirical contributions

The contributions of our study are of a theoretical, empirical, and methodological nature. *First*, we contribute theoretically to the decision-making view on internationalization (Aharoni et al., 2011; Buckley & Casson, 2019) and, more precisely, research on the unintended and unplanned aspects of these decisions (Crick & Spence, 2005; Kiss et al., 2020). Specifically, based on the learning school of decision theory that questions rational and optimal choice related to decision-making (Brews & Hunt, 1999; Brinckmann et al., 2010; Wiltbank et al., 2006), we develop specific hypotheses establishing the relationships between international entrepreneurial competences and international market performance are mediated by improvised internationalization

decision-making. In this way, we reinforce improvisation as an important, but largely neglected, internationalization decision-making approach that is essential for international performance outcomes. By doing so, we not only supplement emerging studies on improvisational internationalization (Bingham, 2009; Evers & O'Gorman, 2011; Hilmersson et al., 2022; Nemkova et al., 2015), but we also inform the boundedly rational thinking perspective that focuses on internationalization by emphasizing the importance of improvisational decision-making (Johanson & Vahlne, 1977; Narula & Asmussen, 2019), under complex and changing international conditions, and the insight that entrepreneurs' decision making should be prospective and emergent based on learning occurring in the moment of action.

*Second*, our study responds to Arıkan and Shenkar (2022) and focuses on the neglected subset of decision-makers, individual entrepreneurs, as essential internationalization agents. By focusing on their personal international entrepreneurial competencies, we contribute theoretically to the microfoundation approach of internationalization (Maitland & Samartino, 2015; Vahlne & Schweizer, 2022). We found that the entrepreneurial competences of international alertness, international self-efficacy, and international preparedness enable the application of improvised internationalization decision-making which includes

spontaneous, creative, and action-oriented behaviors. While earlier studies have examined international business competencies at the firm level (Knight & Kim, 2009), we investigate these issues at the entrepreneur level and develop three important sub-competencies of international entrepreneurial competencies. Moreover, we reveal the crucial role of the entrepreneur's experiences as moderating the relationship between improvised internationalization decision-making and international market performance. By accomplishing this, we contribute theoretically to the learning school of decision theory (Brews & Hunt, 1999; Wiltbank et al., 2006) by showing the experience particularly critical for improvised internationalization decision-making, which is based on prospective learning in the real time and allows for greater adaptability.

Interestingly, general entrepreneurial experience, even from the domestic context, can enhance the relationship between improvised internationalization decision-making and performance. In effect, this can be understood as acquired generative experiential learning which can help entrepreneurs overcome complexities when expanding to international markets (Lafuente et al., 2021) and the learned ability to make fast, well-informed improvised internationalization decision-making (Forbes, 2005b). At the same time, we find that entrepreneurs with more managerial experience decrease international market performance outcomes when applying improvisation in internationalization decisions. This can be explained that extensive managerial experience, particularly when not in the international context, may hinder the ability to design solutions for the internationalization decision at hand and can be harmful for achieving international market performance (Domurath & Patzelt, 2019). This is particularly true for decision makers in young SMEs operating in highly dynamic international markets, whose gained knowledge from previous managerial positions may not be relevant for rapidly changing situations (Ener, 2019).

Third, by synthesizing theoretical conceptualizations into a testable model, this study offers empirical validation and contributes to both methodological and empirical advancement. We further refine methodology by developing context-specific measures for international entrepreneurial competencies, adapting existing scales to the unique demands of internationalization (McDougall et al., 2003; Pidduck et al., 2022). Additionally, our survey of young international SMEs from Finland yields novel findings: international alertness, self-efficacy, and preparedness are micro-level traits that shape improvised internationalization decisions, enhancing international market performance. This means that, to improvise in real time, entrepreneurs must stay alert to rapidly emerging opportunities in the international environment. Self-efficacy represents the needed confidence to make risky and bold international decisions immediately and without extensive planning. Moreover, international preparedness provides the needed international business knowledge resources that can be recombined with action to enable improvised internationalization decision. Moreover, a recent literature review revealed the role of improvised decision-making has not been empirically examined as a mediator between alertness and performance in a domestic context (Araujo, Karami, Tang, Roldan, & Santos, 2023), which indicates the value of our contribution to not only international business research but also the general business literature.

### 5.2. Managerial and policy implications

Principally, our study does not aim to undermine the importance of other decision-making approaches such as planning. Rather, we encourage decision-makers to place more attention on the underestimated importance of improvisational decision-making. Particularly, entrepreneurs with high international alertness, international self-efficacy, and/or international preparedness are advised to largely base their internationalization decisions on an improvised approach.

Improvised internationalization decision-making brings increased international market performance for SMEs. Still, the decision to apply improvisation should be based on evaluating the level of entrepreneurial

and managerial experience of the entrepreneur. Those that have a considerable level of entrepreneurial experience are advised to apply improvised internationalization decision-making to reach higher international market performance, while those with a high degree of managerial experience should avoid using improvised decision-making as it will reduce performance.

A large part of international business education, export promotion agencies, and other stakeholders emphasize the importance of planning to secure successful internationalization. While we accept the essential role of planned decisions, we raise the additional relevance of improvisation. Improvisation should be more frequently included in education curricula and export promotion training programs as a vital tool and capability to deploy. This implies training sessions on creativity, spontaneity, and action orientation in internationalization decision-making are necessary. As for practitioners, stakeholders should ensure that supported SMEs include entrepreneurs with high international alertness, international self-efficacy, and international readiness as these traits are essential for successful improvised decision-making.

### 5.3. Limitations and further research

Our study focused on young international SMEs that originate from Finland. This implies our findings may only be generalized outside this context to SMEs originating from small and open economies (e.g., Austria, Sweden, Denmark, Norway, and New Zealand), provided their conditions are similar. We call for more research to validate our findings on SMEs originating from other small countries, from larger economies, and from emerging and developing markets. Particularly, the role of improvised decision-making as a mediator between international entrepreneurial competences and international performance would require further investigation in these contexts. In addition, we encourage more studies to verify our results with older international SMEs and larger firms with more advanced operation modes to find whether improvisation has a similar influence on performance. Furthermore, it would be also interesting to study whether the constructs relating to entrepreneurial competences and improvised decision-making relate to performance in a similar manner in domestic contexts. Future studies could also use larger sample sizes. While our sample size of 218 can be seen as adequate, a larger sample size can help minimize sampling errors and improve generalizability of research findings (Yang, Wang, & Su, 2006).

Additionally, we focused only on the impact of three individual-level characteristics, international alertness, international self-efficacy, and international preparedness, on international market performance. Future study could extend this investigation and examine other individual characteristics, such as resilience or positive affect. Also, more empirical studies (both quantitative and qualitative) are needed to uncover more possible internal and external antecedents of improvisation, its nuanced dynamics and combinations with other decision-making logics, and internationalization outcomes.

The interesting finding of opposing moderation effects between entrepreneurial and managerial experience on the relationship between improvised decision-making and international market performance can also inform human capital theory (Becker, 1962). This type of study could show what types of human capital lead to entrepreneurial success (Unger, Rauch, Frese, & Rosenbusch, 2011) in improvised internationalization decision-making. Likewise, we encourage more specific research investigating the dynamic nature of interrelationships between cognitive micro-level traits and firm-level characteristics, which can be best studied by qualitative process-based studies. It would also be useful to study closer the decision-making structure and process in international SMEs and whether there are other important decision-makers involved in internationalization decisions. In addition to the entrepreneur, these may include other employees, an executive board, or investors. Future research could also investigate the relationship with improvised and planned internationalization decision-making to find

whether there are synergies in applying them simultaneously or whether this would harm the performance of the firm.

## 6. Conclusion

Based on this study, we can note improvised internationalization decision-making, representing the learning school of decision theory and emphasizing decisions are often made under cognitive and time limitations, can lead to enhanced international market performance. The unfamiliar and dynamic context of international markets requires entrepreneurs to design and execute novel strategic decisions in the moment. Interestingly, our results indicate that an entrepreneur's international entrepreneurial competencies are critical for improvised decision-making. In fact, we find the main components of such competencies are international alertness, international self-efficacy, and international preparedness. Furthermore, interestingly we reveal an entrepreneur's general, non-international-specific entrepreneurial experience is essential for enhancing the relationships between improvised internationalization decision-making and international market performance. Meanwhile, managerial experience is found to be harmful in similar theorized relationships.

The novelty of our study is in identifying the required international entrepreneurial competencies at the individual level and their role in inducing improvised internationalization decision-making and, subsequently, enhancing international market performance. In fact, this brings to the forefront a neglected subset of decision-makers, individual entrepreneurs, and thus contributes considerably to the micro-foundation approach of the internationalization literature (Boustanifar, Zajac, & Zijl, 2022; Coviello, Kano, & Liesch, 2017; Santangelo, Phene, Coviello, Tung, & Felin, 2024). In conclusion, the entrepreneur's international competencies, namely, international alertness, international self-efficacy, and international preparedness are required to improvise in internationalization decision-making to achieve enhanced international market performance outcomes.

## CRedit authorship contribution statement

**Peter Gabrielsson:** Writing – review & editing, Writing – original draft, Visualization, Investigation, Data curation, Conceptualization. **Tamara Galkina:** Writing – review & editing, Writing – original draft, Conceptualization. **Brian R. Chabowski:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Mika Gabrielsson:** Writing – review & editing, Writing – original draft, Methodology, Funding acquisition, Data curation, Conceptualization.

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## Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.jwb.2026.101721](https://doi.org/10.1016/j.jwb.2026.101721).

## Data availability

The data that has been used is confidential.

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