

A customer ecosystem perspective on service

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ABSTRACT

This paper conceptualises customer ecosystems, which are defined as systems of actors related to the customer that are relevant concerning a specific service. Moving from provider-driven dyads and service systems to customer ecosystems, the paper uncovers multiple implications for service marketers regarding the definition of the customer, configurations of value units, scope of value formation, as well as relevant actor systems. The paper extends the perspective on service and suggests implications for research and practice.

INTRODUCTION

Recently, the discussion within service research has emphasized a systems view (e.g. Maglio and Spohrer 2008, Alter 2008, Vargo and Lusch 2010, Edvardsson et al 2011a) as a contrast to the traditional focus on service dyads comprising a single service provider and a customer (Fisk, Brown and Bitner 1993). Services have also earlier been studied as service systems i.e. the system of structures and processes within a service provider's organization (Normann, 1986; Kingman-Brundage et al 1995; Grönroos 2005). Another indirect view on service systems is represented by IMP-researchers focus on the network between corporate actors (Ford, Håkansson and Johansson 1986, Håkansson and Snehota 1995) emphasizing the aggregate system level, the network, not separate corporate actors. Predominantly either the service provider's view on service systems or an aggregate view has been taken. Lacking in service research is a focus on customers' systems. In this paper the term *ecosystem* will be used to represent such a focus.

The paper aims to introduce and conceptualize customer ecosystems as perspective on service. In this paper we discuss implications of considering not only the customer but the customer's ecosystem when designing and operating service business. A customer ecosystem is defined as systems of actors related to the customer that are relevant

concerning a specific service. This means that the customer ecosystem is defined based on a specific service. Activities, practices and experiences emerge within the ecosystem, but the general structure is the configuration of actors. Other actors than persons may also belong to the ecosystem, for example, different service providers in the same industry and service providers from other industries as well as other customers. The customer's ecosystem represents a constantly changing influencer affecting the customer's activities and service experiences. These experiences determine the customer's value formation. It should be noted that taking a customer ecosystem perspective, it is not the service provider that creates value for the customer, neither is it a question of co-creation in a controlled sense for the service provider, but rather a situation where the customer dominates without having deliberate control.

Another related and important issue that is scrutinized and problematized in this paper is how the "customer" is defined. We suggest that it is essential to consider different ways of defining a customer. The "customer" may vary from singular to plural and be defined on different aggregation levels, as a single person, a group of persons (e.g. family), a company, on organisation etc. The customer unit might be seen as any of these, but could be more untraditional as well, for example, a group of friends doing something together, or a subset of a family, where a specific person may dynamically belong to a different "customer unit". The customer unit is related to how value is formed and experienced and portrayed in this paper as a value unit. If the customer is defined as a family, the customer ecosystem is accordingly seen as actors related to the family, which might differ from considering a single person as the customer. This paper proposes a customer ecosystem perspective on service. The focal point is not what the provider does to produce a service offering *but what the customer does with the service as part of her own dynamic and collective ecosystem*. Introducing a customer ecosystem perspective on service contributes to the current discussions on value and service systems and results in several implications. Value is not created in providers' service (eco)systems, instead value is experientially formed in the customer's ecosystem. The core of customer ecosystems is not the co-creation of value in interaction, instead the core is how the customer configures meanings and constructs value in relation to her own ecosystem influenced by the customer's goals, positions and roles and the whole social context.

The paper is structured as follows. First, customer ecosystems are discussed through a review on previous literature on service research. Next value formation in customer ecosystems is conceptually analyzed. Finally, an example from a banking context illustrates characteristics of

customers' ecosystems. Tentative theoretical and managerial implications regarding the customer ecosystem perspective are outlined.

FROM SERVICE DYADS TO SERVICE SYSTEMS AND TO CUSTOMER ECOSYSTEMS

Within the S-D logic *service* has been defined as “the application of specialized competences through deeds, processes and performances for the benefit of another entity or the entity itself” (Vargo and Lusch 2004:2). This view on services has been directly transformed to service systems emphasising service as something done by one actor for the benefit for another (see Maglio et al., 2007; Maglio and Spohrer, 2008; Spohrer et al., 2008). Such a view on service can be considered provider centric, emphasising the “resources integration” as value carrying in a similar way as “products” were emphasised within the G-D logic.

We propose a different view on service. The core of service is not value that is embedded in resource integration or provider driven value propositions. Value is instead seen as embedded in the customer experience where the actual service (as traditionally defined) is only part of the customer's holistic value experience. The focal point is not what the provider does to produce a service offering but what the customer does with the service (Heinonen et al 2010). The customer therefore defines what a service is. In this paper service is defined as *what customers for the benefit of themselves, in relation to their relevant ecosystem, embed into their own ecosystems to support the formation of experiential value.*

As Figure 1 indicates, the focus has traditionally been on a single service provider's offering in a dyad (a) or multiple actors' value proposition as an entity (b) rather than on how the customer constructs the meaning of this value proposition as a part of the *customer's* value formation within *the customer's ecosystem* (c).

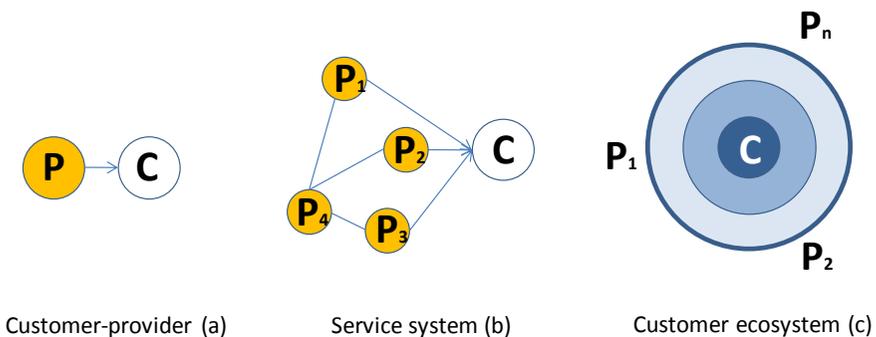


Figure 1. Perspectives on service

The customer-provider view in figure 1 (a) is represented by the traditional service management research (c.f. Fisk, Brown and Bitner 1993). The service system vocabulary is again as Vargo and Lusch (2011) point out drawn from different streams of research that influence the systems thinking (e.g. Giddens 1984; Callon 1998; Granovetter 1973; Slater 2002; Kjellberg and Helgesson, 2007; Arthur, Durlauf and Lane 1997). Service systems have recently been defined as value co-creation configuration of people, technology, value propositions connecting internal and external service systems, and shared information (e.g. language, laws, measures, and methods) (Spohrer et al 2007). The scope of the service system has been left open comprising everything from individuals to businesses, cities, nations and the whole global economy (Maglio and Spohrer 2008). Multiple definitions on service systems have been presented during the past years (e.g. Alter 2008; Maglio and al 2009; Stanicek and Winkler 2010; Badinelli 2010). Service systems are typically seen as some sort of mutual co-creation configuration of different elements (e.g. people, technology, other resources) where value is realized through a coordinated set of activities which through interaction with other service systems transforms to some sort of improvement in the system; that is value (Maglio et al 2009).

Lusch, Vargo and Tanniru (2010) recently introduced the concept of service ecosystems, but the term “ecosystem” has been used also in relation to e.g. branding (Singer 2006), innovation (Chandler and Wieland 2010) etc. Whereas the scope of service systems is seen as defined by the service provider as more or less stable configurations of actors and structures, the service ecosystem emphasizes a more dynamic view on service systems. A service ecosystem is defined as “spontaneously sensing and responding spatial and temporal structure of largely loosely coupled, value-proposing social and economic actors interacting through institutions, technology, and language to 1) co-produce service offerings, 2) engage in mutual service provision and 3) co-create value.” (Vargo and Lusch 2011). What this indicates is that every time resources are integrated and service provision and value creation takes place the nature of the system is changed and the context for value creation is new. The static service system has become a dynamic service ecosystem.

This paper emphasises that the customer is at the centre of the customer ecosystem and it is the customer who configures value experiences in a for the customer meaningful way in relation to the customer’s ecosystem. In a specific service, the customer is the one who decides how the service is integrated into her own activity and actor system. A customer ecosystem is defined as systems of actors related to the customer that are relevant concerning a specific service. This includes service

providers, other customers, and other actors not directly related to the service. Customer ecosystems are related to Alderson (1965) who emphasized households as major organized behavior systems and recognized the systemic nature of customer contexts outside the provider sphere. Within the customer ecosystem, actors configure different elements in order to create value. By studying the vacation habits of families, which represent a form of customer ecosystem, Epp and Price (2011) found that customer's dominate the configuration process on both the individual, relational and collective levels.

VALUE FORMATION IN CUSTOMER ECOSYSTEMS

In contrast to emphasising market commonalities (e.g. Vargo and Lusch 2011), we argue that the different actors within the real life market are not generic. The customer is fundamentally different from the service provider in terms of e.g. activities, practices and experiences and these differences are central. As Drucker (1974:61) point out "it is the customer who determines what a business is". The relevant and common denominator is not the *service* but an *experiencing customer*. A customer ecosystem view underlines that value is often unconscious, long-term and dynamic with both constructively and destructively experienced phases, which support value as being *formed* (e.g. Thompson et al 1989; Korkman 2006; Voima, Heinonen and Strandvik 2010; Echeverri and Skålen 2011; Grönroos 2011). Value is gradually formed and constructed in the customer's own ecosystem that is not always visible for the firm. Value is more than something realized in provider dominated interactions based on the single service provider's offering or value propositions. Value is formed in the whole customer ecosystem not only during but also before and after interaction (e.g. Penalozza and Venkatesh 2006; Heinonen et al 2010). Value is therefore formed both through a shared co-creation process as well as outside the traditional control zone of the company in a customer ecosystem. In the customer ecosystem value is formed for the customer through various value configurations and in multiple spatial and temporal value frames.

We suggest that it is important to recognise different ways of defining the "customer". A *customer* is the actor that purchases, uses and experiences the service provider's service. The customer may internally play different roles; payer, decision makes, user, influencer etc. A *customer unit* is a specification of the internal structure of the customer. There are different types of customer units: single person, a group of persons and other actors, a company, an organization, a municipality, the national government. If the customer is a single person this person performs all the roles herself. If the customer consists of a group of persons (for example a family) or a company, different persons may play different

roles. Value may only be constructed and formed from one actor's perspective at a time so a customer unit (e.g. family) may comprise multiple different configurations of value, since a child's value formation process related to a travel service may be completely different than an adults. The same logic may be applied to a company, where individual experiences are collectively negotiated through a complex social process, so that it is possible to act as a company. The difference between the *customer unit* and the *value unit* is therefore relevant. The *value unit* refers to all the relevant actors who influence the value formation of the customer. If the customer is a single person the value unit may be different, for example the whole family. For the parent the value unit may be much wider than for example a small child. Value is formed in the customer ecosystem on both an individual as well as a collective level (Epp and Price 2011, Edvardsson et al 2011, Voima, Heinonen and Strandvik 2010). Customers configure meaning and value in their ecosystem as part of a collective herd and form value through different goals (Epp and Price 2011), positions (Edvardsson et al 2011), and roles (Vargo and Lusch 2011) in their everyday life and its social context. What this means for value formation in customer ecosystems is that the focal customer configures products and services dependent on their individual, relational, and collective goals and use the holistic customer ecosystem as a configuration platform for value formation. Value formation is thus a *longitudinal and experiential process* which has multiple phases and is colored by individual and collective dimensions.

Customers have been argued to represent specific positions in a service system: "positions that are designed for the customer within the service provider's system, and the roles that the customer is willing and able to take within the provider's social system" (Edvardsson et al 2011). In contrast, within the customer ecosystem the position of the customer refers not to the position in the service provider's system but to the position that the customer takes in her own customer ecosystem in relation to other actors (e.g. family, friends etc.) as part of the customer's social system. The customer is the core from who's perspective value is constructed and experienced.

CUSTOMER ECOSYSTEMS IN A BANKING CONTEXT

Often the value formation process is described as simple, for example the customer getting a renewed bank/credit card at the bank. The customer may be delighted of the new credit card already before the interaction or during the interaction but value is also formed when the customer uses the credit card for various purposes. However, the value formation process is often more complex. Figure 2 illustrates a customer ecosystem based on the everyday life of a family. The bank should recognize that the

value unit is not only the parent as a customer, but all for the value formation process relevant actors in the ecosystem of the customer (e.g other family members). Outside of the customer's ecosystem are multiple service providers, like bank 2 who might be an optional choice for the customer but is not successful in getting embedded in the customer's life due to various reasons. The inner dark blue circle comprises the customer unit with the original bank customer (parent 1) and the teenager who has now a stronger role in the value unit and is thus part of the customer unit.

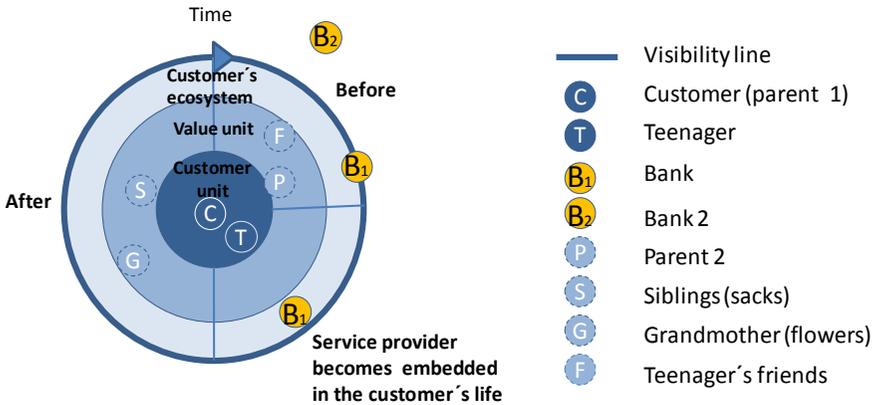


Figure 2. A dynamic customer ecosystem

In the example of Figure 2 the customer's teenaged child is asking her parents for a specific bank card that could be used for small everyday needs instead of asking the parent daily for cash which often irritates both parties. The teenager has learned about this card through her friends. If the bank is not aware of its customer's ecosystem and the parents lack energy to find out about the existence of such a card; how it works, whether there would be yearly expenses for having it, and other unclear issues, the whole family remains frustrated with the situation and no value is formed. If the bank is aware of the customer's ecosystem, age of the children, everyday routines, and practices, the bank may become better embedded in the customer's everyday life context, and offer the card through the parent (1) to the teenager who as a minor needs the parent's approval for it. The reality that becomes visible for the service provider (B1) through various interactions is completely different than the reality of the whole customer unit. Value formation in the customer ecosystem is dynamic and may be influenced by multiple actors. Value may be formed for the customer when the parent sees that the teenager benefits from this situation. The use of the card forms value in relation to the whole value unit of the customer as well. The teenager may on the parents request buy flowers to the grandmother on her birthday, to pay

unexpected transportation fees or to buy some snack for the younger children the day that parents have to work late. Of course it is possible that the teenager uses the card for something that the parent does not approve which may also lead to value destruction, or negative value formation for the customer. What is noteworthy is that the customer's value experience is shaped by the collective and socio-cultural context since value is formed through a complex meaning configuration which is influenced by the roles, positions and goals of the customer, in the context of the specific service, within the ecosystem of the customer.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

In this paper we conceptualized customer ecosystems as a perspective on service and continue the dialogue on the relevance of a systemic view on service. Multiple implications arise when considering the relevance of the *customer's ecosystem* when designing and operating service business. A customer's ecosystem comprises the systems of actors related to the customer that are relevant concerning a specific service. Other actors than persons may also belong to the ecosystem, for example, different service providers in the same industry and service providers from other industries as well as other customers. We have introduced three different aspects that need to be taken into consideration, recognition of the *customer unit*, consideration of the customer unit's *value unit*, and the customer unit's *ecosystem*. When the customer unit consists of a single person the value unit and customer ecosystem is related to this individual. However, when the customer unit is a group it is not only a question of a single individuals' experiences but also the social construction process resulting in response representing the whole group (does not have to imply shared meaning, agreement among individuals but may express the effect of a power/dependence structure, conflict, disagreement among individuals). Still, on the group level, the same ontological standpoint is preserved that the collective experience is socially constructed. The key point with this conceptualization is that it expands the current view on a customer as a single individual visible or/and known to the service provider to viewing the customer as a network of actors related to the customer's purchases, use, and experiences of the service. This expansion of the perspective has consequences for understanding how, when and where value is formed for the customer and what it contains. It also affects the whole picture on how value formation changes and may be influenced by the service provider.

The customer's ecosystem represents a constantly changing influencer affecting the customer's activities and service experiences. It should be noted that taking a customer ecosystem perspective, it is not the service

provider that creates value for the customer, neither is it a question of co-creation in a controlled sense for the service provider, but rather a situation where the customer dominates without having deliberate control, since the customer ecosystem is dynamic. The service provider may use the ecosystem conceptualisation as a framework for understanding:

- The relevance of different customer units
- The relevance of different actors in the formation of value
- The roles and positions of relevant actors in the customer ecosystem
- The longitudinal nature of value-in-experience
- The different phases in the experiential value formation process
- The typical configurations of customer's value units
- The individual and collective profiles of the customers

The strategically important question is not *how the customer is positioned in the service system but how the customer is positioned in the customer's ecosystem?* When the firm understands the nature, position and roles of the customer in the customer's ecosystem the firm may use this information as part of more effective service strategy, service design and service operations and become embedded in the customer's ecosystem. From the managerial point of view this means that when the service provider understands the customer's logic (Heinonen et al 2010), needing (Strandvik, Holmlund and Edvardsson 2008) and experiential value formation (Voima, Heinonen and Strandvik 2010) it will be able to assist the customer's meaning configuration in her service related ecosystem so that experiential value is formed.

REFERENCES

- Drucker, P.F. (1974), *Management: tasks, responsibilities, practices*. Heinemann, London.
- Echeverri, P. and Skålen, P. (2011), "Co-creation and co-destruction - a practice theory based study of interactive value formation", *Marketing Theory*, forthcoming.
- Edvardsson, B., Tronvoll, B, Gruber, T (2011), "Expanding understanding of service exchange and value co-creation: a social construction approach". *Journal of the Academy of Marketing Science*. Vol. 39, No. 2, pp. 327-339.
- Edvardsson, B., Tronvoll, B, Gruber, T (2011a), *Expanding understanding of service exchange and value co-creation: a social construction approach*. Forthcoming.
- Epp, A. and Price, L (2011). "Designing Solutions around Customer Network Identity Goals", *Journal of Marketing*, Forthcoming.
- Giddens, A. (1984), *The constitution of society*. Berkley, CA: University of California Press.

- Granovetter, M (1973), The strength of weak ties. *American Journal of Sociology*, 78(6), p. 1360-1380).
- Grönroos (2011), Value co-creation in service logic: a critical analysis, *Marketing Theory*, forthcoming.
- Heinonen, K., Strandvik, T., Mickelsson, K-J., Edvardsson, B., Sundström, E. and Andersson P. (2010), *Journal of Service Management*, Vol. 21, No. 4, pp. 531-548.
- Kingman-Brundage, J., George, W.R. & Bowen, D.E. (1995), "Service logic": achieving service system integration", *International Journal of Service Industry Management*, vol. 6, no. 4, pp. 20-39.
- Kjellberg, H., and Helgesson, C.F. (2007), On the nature of markets and their practices. *Marketing Theory*, 7(2), pp. 137-162.
- Lusch, R., Vargo, S.L., and Tanniru, M. (2010), Service, value networks and learning. *Journal of the Academy of Marketing Science*, 38(1), pp. 19-31.
- Maglio, P.P. & Spohrer, J. (2008), "Fundamentals of service science", *Journal of the Academy of Marketing Science*, vol. 36, no. 1, pp. 18-20.
- Normann, R. (1986), *Service Management*, John Wiley & Sons, New York, NY.
- Peñalosa, L., and Venkatesh, A. (2006), Further evolving the new dominant logic of marketing: from services to the social construction of markets. *Marketing Theory*, 6(3), pp. 299-316.
- Spohrer, J. P.P. Maglio, J. Bailey, D. Gruhl (2007) Steps Toward a Science of Service Systems, IEEE Computer Society Press, Volume 40 Issue, pp. 71-77
- Spohrer, J., Anderson, L.C., Pass, N.J., Ager, T. & Gruhl, D. (2008), "Service Science", *Journal of Grid Computing*, vol. 6, no. 3, pp. 313-324.
- Strandvik, T., Holmlund-Rytkönen, M. and Edvardsson, B. (2008): Customer Needing - Conceptualising Industrial Service from a Customer Perspective, Working Papers 536, Hanken.
- Vargo, S.L and Lusch, R.F (2004), Evolving To a New Dominant Logic for Marketing, *Journal of Marketing*, Vol. 68, No. 1, pp. 1-17.
- Vargo, S.L. & Lusch, R.F. (2008), "Service-Dominant Logic: Continuing the Evolution", *Journal of the Academy of Marketing Science*, vol. 36, no. 1, pp. 1-10.
- Vargo, S.L. and Lusch, R.F (2011), "It's all B2B...and beyond: Toward a systems perspective of the market", *Industrial Marketing Management*, Vol x, No. x, forthcoming.
- Voima, P., Heinonen, K. and Strandvik, T. (2010), *Exploring customer value formation – a customer dominant logic perspective*. Working papers, No. 552, Publications of Hanken School of Economics, Helsinki. Finland.