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AUTHORS
Hugo Skaalsvik
Jon-Arild Johannessen

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Service innovation: suggesting a typology of service innovation

Abstract
This paper outlines and discusses a typology of service innovation which encompasses four types of service innovation. The typology emerges from a combination of two service concepts, those of service orientation and competitive environments. The innovation types are conceptualized as neglected, imitative, defensive and offensive service innovations. The types are discussed, and the paper shows that the offensive service innovation type is required in order to be successful in the development of service innovation in service enterprises.

Keywords: service orientation, competitive environments, service innovation, a typology of service innovation, service innovation types, successful service innovation.

JEL Classification: O31.

Introduction
Peace in Europe in 1945 brought to an end a long period of economic development and growth stimulated by the “war economy”. Prior to and in the course of World War II, numerous innovations related to the demands of war were planned, developed and launched, the most famous being the atomic bomb in 1945. As a consequence of the necessity to build up even larger cities and larger infrastructure systems, however, heavy investments were required and economic progress continued after 1945. The Western world then experienced a new period of post-war economic development which terminated in 1973 by the oil crises. Governments in several countries responded to the economic downturn by changing their economic policies from an active fiscal policy towards a market policy in which the principles of a free market dominated. One consequence of this development, in the areas of business performance and management, was the turn to a new dominant economic and market logic (Vargo & Lusch, 2002).

At the company level, enterprises had to adapt to a new economic logic, that of a market economy, and in this situation they were required to demonstrate greater flexibility, speed, change and innovation in order to compete under completely new environmental conditions (Tidd et al., 2005; Trott, 2005).

The shift from a production-oriented economy towards a market economy increased the role of knowledge as an important intangible asset (Nonaka & Takeuchi, 1995), which Kim and Mauborgne (1999, p. 14) described as the arrival of a “knowledge economy”. In the knowledge economy innovation is perceived as a strategic resource (Spender, 1996). The transition to a knowledge economy also increased the role of the service sector, service industries and service enterprises, particularly in industrialized economies. Today, the role of the service sector is overwhelming as more than two-thirds of the “entire workforce is employed in services” (Gummesson, 2000, p. 7). This transition of the economy is also addressed by Kandampully (2007, p. 5) who stated that “the majority of the world’s workforce is now employed in service-related activities”. Thus, in the service economy, the requirements of renewal, change and innovation at the enterprise level have become even more important than innovations and changes in manufacturing companies, but still, the knowledge base for developing new services is inadequate and poorly developed in the service sector, service industries and service enterprises (Edvardsson et al., 1995; Johne & Storey, 1998; de Bretani, 2001; Alam & Perry, 2002; Drejer, 2004; Menor & Roth, 2007; Oke, 2007).

Today, innovation is assessed as a prime driver of economic development, growth and prosperity in Western societies and for providing competitive strength and advantage at the company level (Tidd et al., 2005; Trott, 2005). “Innovation has long been argued to be the engine of growth” (Trott, 2005, p. 7), which underlines the necessity of enterprises to plan for, develop and launch a continuous stream of innovations in order to stay ahead in competitive and turbulent environments termed by D’Aveni (1994) as “hyper-competition”. At the level of the individual enterprise, dynamic competitive environments imply challenges and opportunities (Sundbo, 1997), but also problems and, according to service innovation theory, there are several barriers to the development of service innovation (Oke, 2004). However, as emphasized by Dörner et al. (2011), innovative progress is quite difficult to accomplish in services as, for example, many innovations in services are quite easy to imitate and copy. Nevertheless, a prime concern is how to develop a service firm’s innovative capacity and capability in order to improve business performance (Oke, 2002; Dörner, 2011).

According to Trott (2005), innovation is a very broad concept that can be understood in a variety of ways. A set of definitions of innovations has been suggested in the research literature. A rather pragmatic view of innovation is suggested by Drucker (1988, p. 218),
who says that innovation is “the creation of value and the satisfaction of customers in a new way” (authors’ translation), which implies organized, systematic and rational work (Drucker, 1985), a view which is supported by Mintzberg (1983). A more precise, operational and classic definition is suggested by Rogers (1983, p. 11): “innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption”. The core of the definition is the diffusion process, how the adoption of a new idea, product or process is spread in a social system. Thus, innovation is a complex construct which is perceived differently by academics and researchers in various contexts. Nevertheless, today there seems to be a consensus that innovation is both an information- and knowledge-creation process (Gustafsson and Johnson, 2003) that arises out of social interaction that needs to be properly managed (Tidd et al., 2005). There is further consensus that there is a distinction between change and innovation. All innovations at the enterprise level presuppose change, but not all changes in social systems presuppose innovation (Johannessen, 2009b). Today, innovation research is one of the fastest growing research fields in the management area which, according to Johannessen et al. (1997, pp. 668-669), is essentially a fundamental study of “change processes, knowledge development and knowledge integration in social systems”. This view is supported by Gustafsson and Johnson (2003) who say that innovation results from a complex set of processes.

A substantial amount of research on innovation in manufacturing industries and companies is published in a range of different academic journals. Nevertheless, as Western societies, in particular, have become “societies of services” (Droege et al., 2009), a new stream of innovation research has emerged, that of service innovation. Now a distinct area in its own right (Edvardsson et al., 2006; Menor et al., 2002; Spohrer, 2008), it remains under-researched. (Droege et al., 2009; de Jong & Vermeulen, 2003). According to Leiponen (2005), service innovation is “new service development which involves changes in the process of delivering existing services and the generation of new services” (Leiponen, 2005). The core of the definition is that service innovation encompasses both established services and completely new services. Leiponen (2005), in accordance with Gustafsson and Johnson (2003), suggests a process view for understanding service innovation by focusing on developmental phases of service innovation. One key issue is to involve and integrate the customers in the development of new services (von Hippel, 1986; Griffin & Hauser, 1993; Magnusson et al., 2003; Matthing et al., 2004; Sandén et al., 2006; Ulwick, 2002), which to some extent contrasts the development of innovations in manufacturing industries and companies. The key argument to integrate customers in service development is linked to the key characteristics of services: intangibility, inseparability of production and consumption, heterogeneity of quality and perishability (Andreassen, 2008; de Chernatony & Segal-Horn, 2003; Fitzsimmons & Fitzsimmons, 2000; Lovelock & Wright, 1999; Kandampully, 2007). To illustrate, in relation to customers, this is particularly relevant as production and consumption in many instances usually take place at the same time in services, thus making it hard to assess the quality of a service in advance (Grönroos, 2007).

The current knowledge base on innovation encompasses a set of different schools and models (Martin & Horne, 1993, 1995; Coombs & Miles, 2000; Drejer, 2004; Nijsen et al., 2006; Trott, 2005; de Vries, 2006; Sundbo et al., 2007; Droege et al., 2009). Trott (2005), for example, emphasizes two classic schools of thought; the social deterministic and the individualistic school. However, he argues that these have lost momentum and have been replaced by two alternative schools of thought; market-based and resource-based. The core of the market-based school is that market conditions are decisive in determining innovation activities and actions in the individual enterprise (Porter, 1980, 1985; Slater & Narver, 1994), which contrasts with the resource-based school which focuses on a firm’s own unique, scarce and not imitable resources. The essence of the latter view is that by utilizing the firm’s unique resources a continuous stream of innovation may emerge (Penrose, 1959; Wernerfelt, 1984; Grant, 1996; Prahalad & Hamel, 1990; Connor & Prahalad, 1996; Eisenhardt & Martin, 2000). The core of the resource-based school is also outlined by Trott (2005, p. 22) by saying that the “resource-based view of innovation focuses on the firm and its resources, capabilities and skills”. Thus, the market-based school of thought is coupled to the market opportunities and the utilization of the opportunities in the markets in which a firm operates, while the resource-based school is internally oriented, focusing on a firm’s unique resources which are difficult for competitors to imitate. Nevertheless, in the individual manufacturing firm a set of different innovations may emerge; some feature the traits of radical innovations while others feature the traits of incremental innovations (Trott, 2005). Similarly, service innovations at the firm level are also highly different, ranging from highly radical innovations to incremental innovations (Gustafsson & Johnson, 2003).
In order to organize different types of innovations, Trott (2005) suggested a set of different innovations. They are termed as product innovation, process innovation, organizational innovation, management innovation, production innovation, commercial/marketing innovation and, as a final type, service innovation. Obviously, service innovations can be of different kinds as well, and the purpose of this paper is to suggest a typology of service innovations that are useful and applicable for the individual service firm. This paper addresses one descriptive research question:

Which service innovation typology can operate in the individual service enterprise?

This question is important because by answering the question in a convincing way, more knowledge is obtained on an under-researched field of management inquiry, which may provide an enhanced understanding of service innovations at the level of the individual service enterprise.

In order to answer the research question, the paper is organized in five parts. Following this introduction, Section 1 outlines and discusses four key concepts, those of service orientation, competitive environments, service innovation and service innovation typology. Section 2 depicts a typology of service innovation. Section 3 includes the discussion which elaborates on the service innovation typology while Section 4 outlines a set of implications, practical as well as theoretical, which can be drawn from this conceptual desk study. The final section ends the paper.

1. The concepts

In order to offer a manageable typology of service innovation, this paper will clarify four concepts, those of service orientation, competitive environments, service innovation, and service innovation typology. The concepts will be described in turn.

1.1. Service orientation. A firm’s service orientation is coupled to management’s view of service operation which is termed by Grönroos (2007) the service perspective. The service perspective is perceived to be one out of four strategic perspectives which a service business can follow in order to obtain a sustainable competitive advantage. The alternative perspectives are those of a core product perspective, a price perspective and an image perspective (op.cit).

In a firm that defines itself as a service business, the advice is to employ a business philosophy of a service perspective which puts the customers at the forefront by offering a total service package which includes both the core product and supplementary services (Hoffman & Bateson, 1997; Lovelock & Wright, 1999; Kandampully, 2007). In employing this philosophy, management must develop a bundle of supplementary services because, according to Grönroos (2007), it is difficult to build a competitive advantage based on a company’s core product. Thus, in a firm which takes the strategic choice to build the business on a service perspective and positions itself as a competitive service business, this strategic orientation will determine how the firm utilizes its resources and develops its competencies (op. cit). Obviously, in such a firm the service orientation will be high and the business orientation is that of service excellence, which essentially is about enhancing the customers’ value-generating processes and front-line organizing in order to obtain a competitive edge (Kandampully, 2007). In contrast, according to Grönroos (2007), many service businesses are still embedded in the “old” philosophy of scientific management which is a command-and-control system of business conduct (Handy, 1993). This management approach does not take into account the value-generating process of customers and front-line organizing principles, but is grounded on strict hierarchical structures, power systems and strict role regulations which focus on authority systems and organizational power (Carlzon, 1987). Thus, a service firm still embedded in the old model of a hierarchic system does not build its business processes on a service ‘logic’ that values and develops customers’ value-generating processes and empowered front-line employees, but instead focuses on internal, technically-oriented organizational processes. Consequently, in a firm which operates in this way, the service orientation will be low.

Obviously, service orientation may be viewed as a continuum, ranging from low to high. The low and high positions are the extremes, while many service businesses can be placed in alternative positions along the continuum. Nevertheless, in order to suggest a typology of service innovations, we propose two alternatives of service orientation; a low and a high degree of service orientation.

1.2. Competitive environments. According to Droege et al. (2009), the global knowledge economy is gradually becoming dominated by services, and the world is becoming a “society of services”. This development is characterized by uncertainty, ambiguity and turbulence, and enhanced competition (Johannessen & Olsen, 2009a, b). The situation of enhanced competition is observed in several industries and is influenced by a set of developmental factors. For example, the deregulation of the airline industry in the late 1980s had a great impact on the
competition between the carriers (Shaw, 1999), and many airline companies went bankrupt while others, just a few, expanded and were successful, such as Southwest Airlines in the USA and Lufthansa in Europe. In fact, the total airline industry has been subjected to substantial changes and turbulence. Previously, many airline companies, for example Scandinavian Airline Systems (SAS), operated in a rather protective environments, and some of these companies are still embedded in the mental models, systems and organizational solutions of the “old” industrial economy.

Nevertheless, many service enterprises, most of them small and locally situated, operate in rather stable, noncompetitive environments. To illustrate, in small communities such as those in the northern part of Norway, one private service provider offers services to a whole community, for example in the private healthcare businesses. Similarly, many public services operate monopolistically, being the only provider of a particular service in the sector, for example in the public healthcare industry. Obviously, key explanations for this condition are the market size, distant locations along with the specialized competencies of the service provider. Nevertheless, the dominant traits of the service economy are enhanced competition and dynamic environments (Grönroos, 2007). For the purpose of this paper we claim that the degree of competitive environments may be assessed along a continuum ranging from stable to dynamic environments. As with service orientation, as discussed above, the two alternatives are the extremes, but in order to suggest a manageable typology of service innovation, these two alternatives are used, those of stable versus dynamic competitive environments.

1.3. Service innovation. There is a myriad of definitions of the concept of innovation. Nevertheless, the authors suggest that there is a common consensus that innovation needs to be viewed as a holistic information- and knowledge-creating process, represents novelty, involves human activity, is based on novel ideas, is dependent upon a superior knowledge base and unique resources, and that there is a commercialization component, i.e. there is a (market) demand for the innovation (authors’ suggestion).

The concept of service innovation consists of two words, service and innovation, and hence an understanding of service is needed. Grönroos (2000, p. 46) defines service as “an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interaction between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems”.

The core of this definition is the process view of services which, according to Grove and Fisk (1992), implies that the service process consists of three stages; the input stage, the throughput stage and the outcome stage. According to the process view, innovation in services may encompass radical and incremental changes in the delivery of existing services and/or completely new services. Practice in services shows that most of the innovations in services belong to the first category (Gustafsson & Johnson, 2003).

The process view of service innovation is supported by Gustafsson and Johnson (2003) who perceive service innovation as an offensive strategy. In this way, service innovation is given a broader understanding. Gustafsson and Johnson (2003, p. 121) suggest a set of distinct stages to follow when designing, planning and developing service innovation at the level of the individual enterprise. Illustratively, one key point is to integrate the customers (existing and potential) directly into the service innovation process which makes it possible to get feedback on customers’ potential needs and preferences. Overall, the process view implies a structured approach to service innovation processes (op.cit). Nevertheless, according to Ettlie (2006), the innovation process in manufacturing differs from that in services due to, for example, the distinct characteristics of services (Lovelock & Wright, 1999). But, as a matter of fact, there is “little empirical evidence on innovation in services” (Ettlie, 2006, p. 294). One key conceptual issue is the choice of a service innovation typology, which is the focus of the next section of this paper.

1.4. A service innovation typology. What needs to be clarified here is the concept of typology. Typology as a construct is used extensively in management research. To illustrate, in organization and leadership theory, Strand (2006) suggested a typology of organizations. Similarly, in the market area, Brodie (2009) showed a typology of marketing. Thus, in the context of this paper, we will suggest a typology of service innovation which consists of four different types of service innovations. As will be revealed, one type, in our opinion, is associated with the development of successful service innovation in service enterprises.

2. A typology of service innovation: four cases

We suggest a typology of service innovation which is depicted in Figure 1 below:
Figure 1 depicts four quadrants which show four types of service innovations; neglected (quadrant I), defensive (quadrant II), imitative (quadrant III) and offensive (quadrant IV). The quadrants emerge from a combination of the two concepts of service orientation \( \text{(high/low)} \) and environment \( \text{(stable/dynamic)} \). Illustratively, if service orientation is high, the core tenet is that service leadership values a service logic, that of a service philosophy in which service innovation is given priority (Grönroos, 2007), and if service orientation is low, service leadership values a “steady” run of business conduct which represents the status quo and gives priority to technical and operational affairs in business conduct (op.cit). Similarly, if the service enterprise operates in a stable environment, the essence is that the enterprise is protected from competition but on the other hand, if the service enterprise operates in a dynamic environment, then the enterprise is subjected to a high level of competition. Thus, the combination of the two constructs – service orientation \( \text{(high/low)} \) and environment \( \text{(stable/dynamic)} \) – result in four types of service innovation. A discussion of the innovation types in relation to their relative success to service innovation development follows.

3. Discussion

The first quadrant (I) illustrates a situation where service orientation in the individual company is low while the firm operates in a stable environment. This situation is not favorable to initiating changes and innovations because the firm is embedded in a culture that represents stability. The situation is termed a “neglected” type of service innovation as the enterprise is embedded in a business model of “status quo”. The second quadrant (II), termed a “defensive” type of service innovation, is also unfavorable even though the service orientation is high, the firm operates in a stable environment which does not stimulate innovative activities and actions. Thus, in this situation there is a lack of market orientation in the individual enterprise, and the firm does not act proactively which is needed because, most likely, there will in the course of time be a transition from stable to dynamic environments. The third quadrant (III) also depicts a situation unfavorable to service innovation development, a situation which is termed an “imitative” type of service innovation because, even though the enterprise operates in a highly dynamic environment, the service orientation is low. In such a situation, the service enterprise does not apply a strategy of service excellence because the firm is embedded in an old, technically-oriented culture. Finally, in the fourth quadrant (IV), termed as an offensive type of service innovation, the conditions are favorable for service innovation because the firm operates in a highly dynamic environment which encourages change-oriented management and market and customer orientation, and the firm, at the same time, is embedded in a service philosophy of service excellence. In a situation such as this, the business model in operation is not that of “status quo”, but instead represents a dynamic, change-oriented model which implies an ‘involvement model’ of business conduct.

4. Implications

This conceptual paper has offered a typology of service innovation which is grounded on a combination of two constructs, those of competitive environments and service orientation. We have argued that the combination of these two constructs is useful for the development of a typology of service innovation because services, to a large extent, are forced to face competitive environments and, in order to survive, have to build the business
model on superior service performance. Four types of service innovation have been suggested, conceptualized as neglected, defensive, imitative and offensive service innovation types which offer new knowledge, both theoretical and practical, to an under-researched field in services management, that of service innovation (Johne & Storey, 1998; de Bretani, 2001; Oke, 2007).

4.1. Practical implications. Metaphorically, quadrant I – where the service orientation is low and the business environment stable – may be associated with a red traffic light. A service enterprise that operates in this mode is embedded in the old industrial model of focusing on the technical and operational aspects of service production and delivery. A consequence is that management needs to turn to the philosophy of ‘service excellence’ (Grönroos, 2007) which upgrades the quality of services by putting the customers at the front of service operations and designs an organization that develops an organizing structure according to the Carlzon’s (1987) view of the inverted pyramid. Similarly, if the environment within which the enterprise operates is stable, this situation is challenging because what characterizes the service sector is competition, and, most likely, new entrants will enter the economic scene and create competition on which a service provider has to act. Thus, management is advised to monitor closely how the market develops, to prepare for market changes, to transfer the firm’s culture into a service culture and to reorganize the organizational structure according to front-line organizing principles (Johannessen and Olsen, 2010).

Metaphorically, quadrants II and III may be associated with a yellow traffic light which signals that the service firm has to prepare for a move. In quadrant II, service orientation is high, which is beneficial, but the firm’s environment is stable. However, as emphasized above, a stable situation will most likely change over the course of time to a dynamic mode as market competition increases. The practical implication is that management has to monitor the present market situation closely and try to anticipate future market trends and changes in the business environment. Thus, the situation requires a strategic reorientation towards competition and an upgrading of the role of the market. Quadrant III signals the yellow light as well because, despite the fact that the service orientation is high, the firm is still closer to the red light than in the quadrant II mode as the enterprise is embedded in the old and industrial way of perceiving service processes. A firm that over time does not change its business orientation towards service excellence by upgrading of the role of customers and service employees will eventually fall into a spiral of economic downturn.

Metaphorically, the quadrant IV mode may be associated with the green traffic light which signals to drive forward, perhaps even to speed up developmental processes. Obviously, this is a favorable situation for a service business because the firm operates in a logic of service excellence, and understands the value of monitoring market signals and development within its business environment which may be labelled as dynamic. Thus, we claim that quadrant IV is associated with the successful development of service innovations.

4.2. Theoretical implications. The present study has several theoretical implications. First, in relation to successful service development, the research confirms the need to perceive the development of services as a holistic value-creating process which values the role of customers in services development. Second, the research supports the key role of service leadership in developmental processes because leadership possesses the power and authority to turn the business into a culture of service excellence which is needed in order to compete in the service sector. Third, following the former key point, the research states that in the development of service innovation a firm needs to utilize the creativity of the employees, particularly those at the front, because the employees need to be fully empowered in relation to trust and commitment to the organization. Fourth, the research shows that new organizing principles need to be introduced which are designed upon principles of front-line organization, as the knowledge and competencies of the employees are an organization’s most valuable intangible resource. Fifth, according to the former implication, a service organization must connect with the organizing principle of front-line organization, a service needs to redirect its business culture to a service culture.

Conclusions

This paper has shown how a typology of service innovation may be developed by the use of two important constructs in service literature; service orientation and competitive environments. We have proposed a typology of service innovation which encompasses four types of service innovation that are conceptualized as neglected, defensive, imitative and offensive. The paper includes a discussion of the four types by metaphorically using red, yellow and green traffic lights to illustrate how service innovation development may work at the level of the individual service enterprise. We have argued that the traffic light green is associated with successful service innovation.
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