

## Approaching Service Innovation Patterns

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### Abstract

*The present paper aims at analyzing the types of innovation in the field of services. First, the concept of innovation is defined and second, field literature is reviewed from the perspective of service innovation. The main types of innovation are identified based on several attempts at defining innovation, the most notable being Schumpeter's. Thus, it is possible to approach concepts such as product and process innovation, incremental and radical innovation. Another aim has been to regard service innovation as a standout type of innovation.*

**Keywords:** innovation, service innovation, service characteristics, innovation patterns.

**JEL Classification:** O31, L89, M10

## 1. Introduction

Innovation is a concept framed in the field literature by Joseph Schumpeter in his works regarding economic development. Even if Schumpeter first defined innovation more than 70 years ago, there are still some difficulties narrowing the concept due to the approach many authors have. Therefore, some regard innovation as a process, while others limit the definitions and regard innovation only as a result. Another problem encountered is that many approaches of innovation are from a manufacturing perspective, and only a few focus on service innovation. Even if researchers are trying to frame the concept of service innovation, in many of the given definitions they start by narrowing innovation from manufacturing perspective. Service innovation is different from product innovation, first because of service characteristics: intangibility – services cannot be touched, simultaneity – production and consumption take place at the same time in the same place, perishability or the impossibility of stocking services and variability – it is almost impossible to provide identical services twice. Second, there are a few factors that particularize innovation such as producer-consumer interaction, structure of service sector – there are many SME's –, or the legislation regarding service activity.

## 2. Defining Innovation

Schumpeter developed the theory of innovation and defined it as “the setting up of a new production function”, that “covers the case of a new commodity, as well as those of a new form of organization such as a merger, of the opening up of new markets, and so on” (Schumpeter, 1939, p.84). Also, according to Schumpeter, innovation “combines factors in a new way, or that it consists in carrying out new combinations” (Schumpeter, 1939).

In time, other definitions of innovation have been framed. In 1983, Rogers defined innovation as “an idea, practice, process, or product that is perceived as new by an individual” (Ottenbacher, 2007 apud Rogers, 1983). Innovation can also be considered as a management discipline that is focused on the organization’s mission, that searches unique opportunities, determines organization’s fitness to strategic directions and defines the measures for success (Yeh-Yun Lin and Yi-Ching Chen, 2007 apud Gaynor, 2002). Flipo considers that innovation is the process of creating a new customer oriented value, as well as the main judge of enterprises’ competitiveness, that can regard the main beneficiaries and other stakeholders such as the organization itself (through employees), shareholders, external partners and so on (Poitier et al, 2005 apud Flipo, 2001).

Another important definition of innovation is the one given by the OECD’s Oslo Manual. According to the Oslo Manual, an innovation is “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations” (Oslo Manual, 2005).

It can be noticed that in all the above mentioned definitions, innovation is narrowed from the manufacturing or production process perspective and not in the service field. Therefore, in this paper we will discuss the service innovation concept starting with the service characteristics and the main studies developed by certain field researchers.

### **3. Service Innovation Perspectives**

In order to define service innovation, it is first necessary to discuss the service concept along with its particularities. Services can be defined as an activity made or developed by some person (called provider) to another person (called customer), in which the last one is not personally satisfying a certain need, instead he “orders” it from a specialist (Jivan and Fruja, 2006).

Gadrey (1992) defines services as “a set of processing operations (...) carried out by a service provider (B) on behalf of a client (A), in a medium (C) held by A, and intended to bring about a change of state in the medium C” (Gallouj and Weinstein, 1997 apud Gadrey, 1992). Also, services can be regarded as an economic activity that has as a result certain advantages obtained by the customer of intangible commercial offers (Jivan and Fruja, 2006). From this definition, one can derive the first main service characteristic: intangibility or the fact that services cannot be touched, seen or smelled.

According to Gallouj and Weinstein, after production products acquire independent physical existence (Gallouj and Weinstein 1997), which could create a bigger “distance” between the producer and consumer. In the case of services, this distance is reduced by simultaneous production and consumption, known as inseparability - another characteristic of services. Due to simultaneity or inseparability, that implies the presence in the same place and at the same time of both producer and consumer, a third characteristic of services shapes, namely perishability. Finally, one last feature of services refers to their variability. Variability is determined by the complexity of services, particularly by the fact that it is impossible to repeat the same services from one customer to another.

Studies on service innovation were first approached in literature by Richard Barras (1986). In his approach, he started with the service characteristics, proposing a theoretical

model of process innovation in services based on the idea of reverse product cycle. This cycle has three phases: during the first phase the applications of new technologies are designed in order to increase the efficiency of existing service delivery (implementation based on incremental innovation), the second phase is to apply new technologies in order to improve service quality and third phase in which new technologies contribute to the development of entirely new or completely transformed services (Barras, 1986). Although his attempt was to develop the service innovation theory, we can say that it was only an approach of technological innovation in the financial services industry derived from the manufacturing area.

Regarding service innovation, Gallouj and Weinstein (1997) consider that innovation in this field is difficult in two ways. First, they refer to the fact that innovation theory was developed only on the analysis of technological innovation in the manufacturing area. Second, they consider that another factor that customizes innovation consists in service characteristics as well as in the nature of the output production process, which is making service innovation difficult to measure and monitor (Gallouj and Weinstein, 1997).

Service innovation can be defined as “a process which contains new concepts and the production, development and implementation of behaviours. It is also a method, a change of respond to external environment or the first action of influence environment of the organizational transformation” (Lu and Tseng, 2010 apud Daft, 1978).

In an attempt to delimit the features of service innovation, Hipp and Grupp (2005) identify a number of specific factors that contribute to and influence service innovation and the innovation process itself. Among these factors there were found: the human factor, organization of the innovation process, innovation output typologies, intangibility, customer integration structure of the service sector and regulatory issues (Hipp and Grupp, 2005).

The human factor is an essential factor in the service sector, both from a service provider perspective, because he is in direct contact with the customer and of consumer perspective, due to the opportunity to interact with the provider. In this interaction, the direct exchange of ideas, knowledge, know-how is facilitated, product improvements based on customers' or providers' previous experiences are implemented.

Another two relevant factors mentioned above are intangibility and innovation output typologies. The main reason for which intangibility affects the innovation process is the difficulty of patenting services and also the lack of protection for the organization's rights for its innovations. While innovation output typologies refers to innovations which according to the degree innovativeness can be classified in incremental or radical innovations. There are authors sustaining that because of the imitative nature of service innovation, a continuous service innovation process is necessary (Sundbo, 1997) and others arguing that due to simultaneous service production and consumption it is difficult to make a distinction between process and product innovation (Hipp and Group, 2005 apud Evangelista and Savona, 1998).

All these factors mentioned or presented above influence more or less service innovation. But as stated, there are different types of innovation, therefore in the following part of the paper the main types of innovation will be presented in order to clarify if these categories can be applied or are already used in service innovation.

## 4. Service Innovation Patterns

In his approach regarding innovation and the attempt of narrowing a complete and complex definition, Schumpeter considers that innovation is a concept that covers the following five cases (Schumpeter, 1961):

- 1) The introduction of a new good;
- 2) The introduction of a new method of production;
- 3) The opening of a new market;
- 4) The conquest of a new source of supply of raw materials or half-manufactured goods;
- 5) The carrying out of the new organisation of any industry.

Based on this definition of innovation, and also on the intent to elaborate innovation typology, in the field literature there were outlined several approaches to this issue.

Over time there were outlined several criteria by which innovation can be classified. The most commonly used criterion to classify innovation refers to the subject of innovation (B loiu, 1995). According to this criterion, we are dealing with product innovation and process innovation (Hjalager, 1997; Hjalager, 2002; Oslo Manual, 2005; Sundbo et al, 2007). *Product innovation* can be defined as the development and introduction on the market of a new or significantly improved product or service (Oslo Manual, 2005; Hjalager, 2002), while *process innovation* refers to backstage initiatives aiming at increasing an organization's efficiency and productivity (Hjalager, 2010).

Another criterion that classifies innovation refers to the degree of novelty. According to this criterion, there are two types of innovation: incremental and radical (B canu, 2009). *Incremental innovation* refers to adding new characteristics to existing products or improving part of them, while *radical innovation* consists in creating completely new products or services.

A taxonomy of innovation that seeks a better delimitation of radical and incremental innovation is done by intercalation of various ways of improving the product proposed by Gallouj and Weinstein (1997), de Vries (2006) and Gallouj and Savona (2009). According to this approach the following types of innovation are framed: radical innovation, improvement innovation, incremental innovation, ad hoc innovation, recombinative innovation and formalization innovation. *Improvement innovation* consists in improving certain characteristics without changing the system's structure (de Vries, 2006; Gallouj and Weinstein, 1997). *Incremental innovation* refers to adding one or two new features to a particular type of product, either by directly mobilizing certain skills or adding new designs. In other words, incremental innovation consists in marginally changing or replacing the system by adding new elements (de Vries, 2006). *Ad hoc innovation* can be defined as the interactive construction of a solution to a particular problem raised by a customer (Gallouj and Weinstein, 1997). Usually, this type of innovation is produced jointly by the supplier and customer. *Recombinative innovation*, or architectural innovation implies an association or dissociation of different services and technical characteristics (Gallouj and Savona, 2009), exploiting the possibilities opened by new combinations of different technical characteristics, derived from a stock of default knowledge (Gallouj and Weinstein, 1997). *Formalization innovation* occurs when one or more features are formatted or standardized. For the provided services, this kind of innovation adds a degree of materiality (Gallouj and Savona, 2009).

Another innovation taxonomy is presented by OECD in the Oslo Manual. The typology is used as a basis for other classifications regarding innovation presented in field literature. According to the Oslo Manual, there are four types of innovation: *product innovation*, *process innovation*, *marketing innovation* – or the implementation of a new marketing method – and *organizational innovation* – defined as the implementation of a new organizational method in the firm's business practices, workplace organization or external relations (Oslo Manual, 2005).

In addition to this classification, based on Schumpeter's approach regarding innovation taxonomy in tourism, Hjalager (2010) concludes that there are four categories of innovation: *product innovation*, *process innovation*, *organizational innovation* and *management and market innovation*, noting that the distribution and institutional innovation are attempts to take into account the specifics of innovation in tourism services. In another classification, the same Hjalager identifies five broad categories of innovation: product innovation, process innovation, management innovation, logistics innovation and institutional innovation (Hjalager, 2002). Product and process innovation have been discussed above. *Management innovation* refers to new job profiles definition, authority systems often used in combination with the introduction of new products (Hjalager, 2002). *Logistics innovation* recombines external commercial "liaisons" (Hjalager, 2002), while *institutional innovation* refers to a new organizational structure or a new legal framework that improves businesses efficiency (Hjalager, 2010).

Another approach regarding service innovation patterns in tourism field is that of Orfila-Sintes and Mattsson in their study. They identify four different types of innovation that "arise from the theory of innovation in services": management innovation, innovation in external communications, service scope innovations and back-office innovations (Orfila-Sintes and Mattsson, 2009). According to Orfila-Sintes and Mattsson, innovation in *external communications* refers to the use of ITC's in generating new services, *service scope innovation* refers to the incorporation of technological assets that improve service output or service delivery, and *back-office innovation* consist in the incorporation of new technological assets that improve productivity (Orfila-Sintes and Mattsson, 2009).

The innovation patterns presented above pertain to innovation in services or in the tourism field, many of them being as well used in the manufacturing industry. The question that arises after studying the field literature regarding service innovation is: Is service innovation a type of innovation or can it be treated separately? In order to answer this question, first we have to mention that service innovation is related to product innovation. If we refer to service as a resultant of a process, service innovation can be considered an innovation type, but if we see service innovation as an entire and complex process, then we can approach it separately.

#### 4. Conclusions

The service sector is a distinct one, which stands apart from the manufacturing sphere through service characteristics.

In what service innovation is concerned, one must underline the fact that innovation is difficult to implement due to the customer's presence. This could stimulate the imitation of innovation among companies in this field. Although difficult to implement, service

innovation is an aspect that has to be taken into account in order to make organizations competitive.

In order to facilitate innovation, it is important that managers identify the weaknesses of their organizations, but also the main courses of action in order to improve their offer. Implementing these courses of action may trigger innovation according to the types we have discussed in this paper.

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