

Mapping New Service Development: A Review and Synthesis of the Literature

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Abstract

This paper presents the state of the art in New Service Development (NSD) by analysing 178 papers that have been categorized by discipline and method, implementing a structured methodological framework to identify existing knowledge. The findings of this paper come at odds with the notion that NSD is something that just “happens”, and can be used as a tool to raise awareness about organizational characteristics that need to be taken into consideration when developing new services. This work contributes to the study of service innovation and NSD, and opens avenues for further research on the topic. The managerial implications of this paper highlight the importance of interdisciplinary collaboration for the implementation of successful NSD.

摘要

本文通过分析178篇按学科和方法分类的论文, 实施结构化方法框架来识别现有知识, 介绍了新服务开发(NSD)的最新进展。本文的研究结果与NSD只是“发生”的概念相悖, NSD可以作为一种工具来提高对开发新服务时需要考虑的组织特征的认识。本文的研究有助于服务创新与NSD的研究, 并为该课题的进一步研究开辟了道路。本文的管理含义强调了跨学科协作对于成功实施NSD的重要性。

Keywords: New Service Development; Service Innovation; Critical Success Factors; New Service Development Stages

关键词: 新服务发展;服务创新;成功的关键因素;新的服务发展阶段

Introduction

Services play an important role in the economy of developing countries. Due to the increasing importance of the service industry, research on innovation and New Service Development (NSD) increased accordingly during the last decade (Kitsios et al., 2009; Papastathopoulou & Hultink, 2012). Despite the significance of this research area, only 58% of new services are successful (Griffin, 1997). Alam (2011) supports that the majority of new services are unsuccessful due to a lack of strategy. Businesses develop unsuccessful services because they cannot understand the needs of customers which lead to their incapability to strategically develop new services. Thus, both strategy and customers' participation compose two significant success factors of NSD. Another reason of unsuccessful new services is the lack of employees' participation. Employees contact with customers, they know customers' needs and they can support the success of new services (Karlsson & Skålén, 2015; Ottenbacher & Harrington 2010; Tajeddini 2011). In recent years, technological and economic changes, as well as changes in customers' attitudes create a turbulent environment. Information Technology support businesses to develop successful new services, according to customers' needs. It provides tools to businesses to analyze customers' needs and personalize new services, according to them (Chen & Tsou 2012; Van Riel et al., 2004).

Despite the significance of new services, limited structured literature reviews have been conducted in the area of NSD (Adams et al., 2006; Tranfield et al., 2003; Smith et al., 2008). Scholars have noticed the need for a study which will critically examine the current issues in this field. As the knowledge body in this area is growing, researchers have concluded that aspects of NSD are still unaddressed. Aspects such as the role of frontline employees, the participation of customers, the support of management and the organizing of the process have to be studied further (Biemans et

al., 2016). What is the existing knowledge in NSD? To what extent does the NSD

literature provide frameworks for successful services? To illustrate the above research areas it is important to conduct a structured literature review to provide an overview of this field. Researchers argue that the literature review synthesizes existing knowledge and highlights research gaps (Webster & Watson, 2002).

More specifically, this paper answers the following questions: How many papers are published each year? Which journals have published NSD peer-reviewed publications and which have published the highest number of publications? Which topics have been studied? Which methods have been used? What areas for future research can be identified? Accordingly, the contribution of this paper is twofold. First, it provides the developments of scholarly research in NSD over the last 30 years. Moreover, the structured methodological framework which was used demonstrates how the academic interest in NSD has evolved over the years and it highlights areas that need further research. Secondly, this literature review can be useful for managers in order to increase the understanding of the complexity of areas regards on NSD.

The added value of this paper is the useful overview of the state of innovation in NSD, which highlights issues among NSD research domains, while providing a complete overview of the literature from a different perspective, not implemented in existing analyses and, thus, it is a good starting point for further research. This literature review may be of interest to academics who are already studying service innovation or NSD-related scientific areas, or researchers who have been introduced to the field but they are interested in examining more specific insights into where current research topics in this literature can be located, and how they may contribute to them.

Within the rapidly changing business environment managers have focused on the role of innovation in gaining competitive advantage. Although many service

executives support that new service development is something that just “happens”, the findings from this literature review may be used as a diagnostic tool which allows executives to become aware of organizational characteristics that need to be taken into consideration when trying to develop successful new services. Managers have to realize that they have to improve both customers' satisfaction and service quality, as well as service innovation in service design in order to survive and compete in the current increasingly demanding environment (Andreassen et al., 2016). Design thinking support organizations ensure that customer needs are well-integrated into the NSD process, especially because customers are often the main contributors of the resources required for developing the service offering. In this respect, it would be useful to start exploring how managers could involve their customers in co-creation during the service innovation process, because the customer's ideas are often more creative and valuable than the ideas found within the organization. Carefully researching customer preferences early in the NSD process supports firms avoid a gap between customers' expectations and outcomes of service offering. It is about to say that managers should examine which practical tools and techniques can be developed in order to increase customer participation and what methods of customer participation are effective during the stages of NSD process.

The structure of the rest of the paper is as follows: the next section analyzes the methodology used for the study. Then, the findings of the analysis of the papers are provided. Finally, conclusion and suggestions for future research conclude the paper.

Methodology

As it has already been stated, the aim of this paper is to examine the current state of NSD. Studies were identified using a three-phased literature review methodology, which was suggested by Webster & Watson, (2002), and has been previously used in

NSD research (Ha et al., 2012; Holmström et al., 2010; Kitsios & Kamariotou, 2016; Schubert & Legner, 2011). First, a search of the extant literature reviews was done to select the databases and keywords of the basic search. Then, the backward search was implemented to examine the references of the selected papers and finally the forward search to examine the citations of the selected papers in order to increase their amount. After the selection of the papers, these were classified according to their content.

Previous Literature Studies on NSD

The existing literature review papers from 1998 to 2016 are presented to place the current literature review to the existing knowledge about NSD field and to examine the previous knowledge of this field as well as to discuss the identified research questions based on the findings of previous studies. Also, previous literature reviews give an overview of literature review methodologies used by researchers and highlight their importance and gaps in their implementation. Table 1 presents a summary of the existing literature reviews on NSD field.

Table 1: Summary of previous Literature Reviews

Author	Year	Methodology	Results
Johne & Storey	1998	-	Product development, process development, market development Customer satisfaction, loyalty, profitability and the attraction of new customers Corporate environment, the process, the people, the analysis of opportunities, the development and the implementation
De Jong & Vermulen	2003	Searching in books, journals and conference proceedings	Training of front-line employees, the structure of the process for NSD, the participation of multifunctional teams, the required resources for the launching stage
Van der Panne <i>et al.</i>	2003	43 studies	Business culture, experience, R&D team, strategy, organizational structure, management style and support Quality, technology, marketing and competition
Edvardsson <i>et al.</i>	2005	34 papers 4 databases	Service definitions, service nature, service concept, service features, service dimensions and service differences
Zhou & Tan	2008	176 studies Multiple databases	Success factors, models and performance evaluation The majority of researches have done in financial services. The majority of papers have been published from 2004 to 2006.

			The most frequently referred journals are the International Journal of Service Industry Management, the Service Industries Journal and the Journal of Product Innovation Management. 80% of papers in their review are empirical researches
Evellens	2010	-	Models of innovation process and success
Papastathopoulou & Hultink	2012	Multisource search Searching in books and journals 145 papers	They classified them according to publication characteristics, research methodology, analytical techniques, and countries of surveys They categorized papers in three time periods
Baron <i>et al.</i>	2014	Multiple databases Multiple themes in the service(s)-related journals/conferences 171 papers	They identify four phases of service-marketing development They provide conclusions which coalesce around the service-dominant logic of marketing perspective, the technology and service perspective, and the transformative service research one
Carlborg <i>et al.</i>	2014	Searching in peer-reviewed marketing and innovation journals 128 papers	Emerging trends in service innovation
Biemans <i>et al.</i>	2016	230 empirical articles	They classified them according to publication characteristics, journals, authors and topics
Storey <i>et al.</i>	2016	144 publications	Service innovation performance Success factors for NSD and NPD : innovation strategy, employees' involvement, market orientation, process, customer integration
Kitsios & Kamariotou	2016	Multiple databases 144 papers	6 categories of critical success factors in NSD : Idea generation, Organizational structure, NSD process, Resources, Market synergy and Strategy
Kitsios & Kamariotou	2016	Multiple databases 144 papers	Service strategy Information Technology NSD performance

Previous researchers conducted literature reviews to compare New Product Development (NPD) and NSD. They focused on the expectations of managers for the new service, such as customer satisfaction, loyalty, profitability and the attraction of new customers and they discussed about issues emerging on NSD process, such as corporate environment, the process, the people, the analysis of opportunities, the development and the implementation (Johne & Storey, 1998). Other researchers examined success factors of NSD. These factors are related to business culture, experience, R&D team, strategy and organizational structure. Other factors concern management style and support, quality, technology, marketing and competition (Van der Panne *et al.*, 2003). More recent studies conducted multisource searches and

classified findings according to publication characteristics, research methodology, analytical techniques, and countries of surveys (Papastathopoulou & Hultink, 2012).

Despite the fact that few attempts have been made to present the main perspectives of NSD as well as the differences between NPD and NSD, the main questions concerning the reasons of unsuccessful NSD as well as the disciplines which are still uncovered, have not been answered yet. It is therefore timely to reexamine the current knowledge of NSD area. As a result, this literature review tries to answer the emerging questions regarding how extensive is the field of NSD? What issues have been discussed? Which methodologies have been used? Which disciplines are still uncovered?

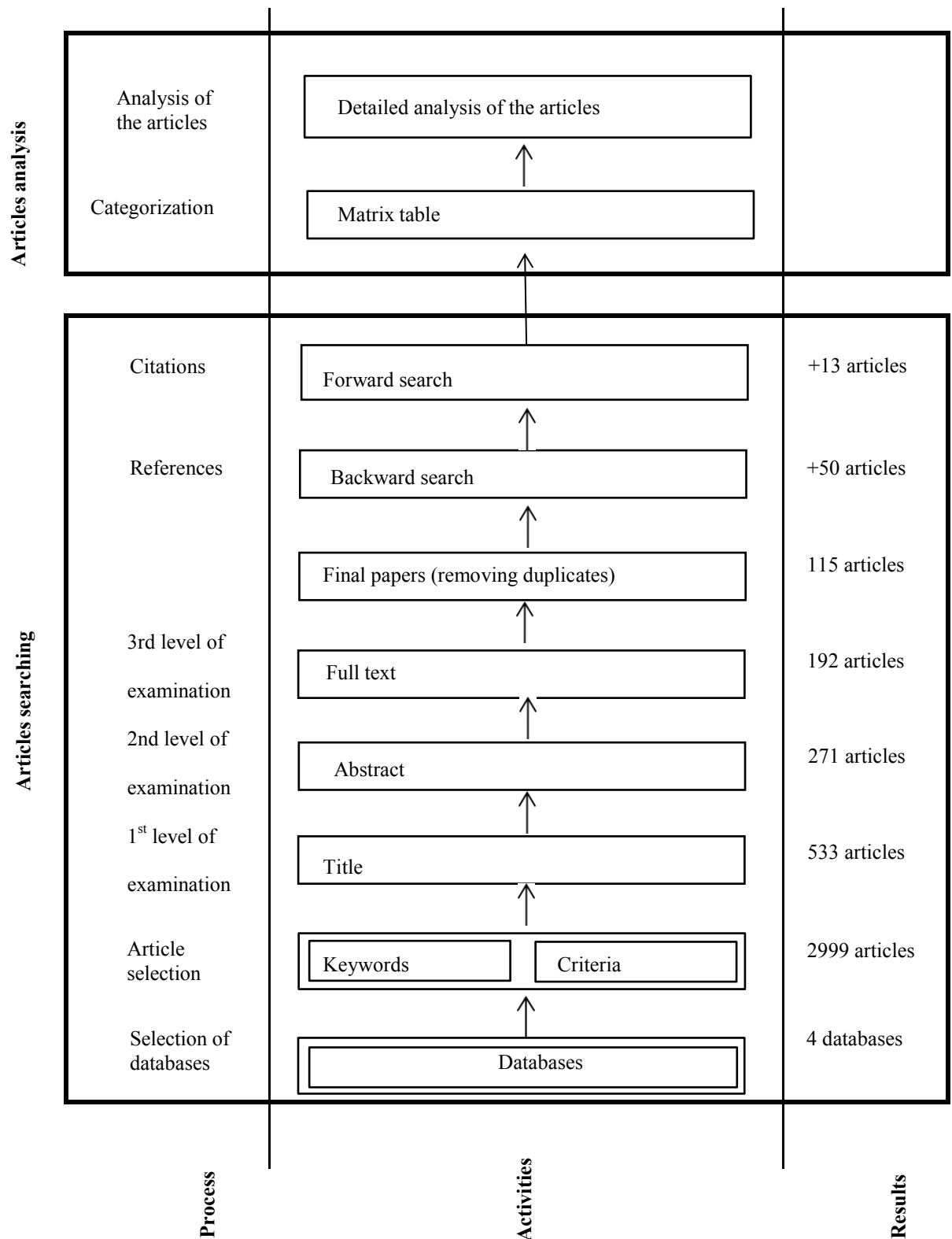
Searching Strategy

The search was done in Scopus, Science Direct, Web of Science and ABI/INFORM using the following keywords “New service development”, “Innovation management and new services”, “Service innovation process” and “Service innovation strategy”. Papers published in academic journals and proceedings of conferences were selected without limiting them in a specific period (de Jong & Vormulen, 2003; Kitsios & Kamariotou, 2018; 2016; Papastathopoulou & Hultink, 2012). The admitted journals belonged to fields of Marketing, Strategy, Innovation, Management, Technology, because NSD is a vast field of research (Kitsios et al., 2009). Finally, published papers were only in English.

Overall, 4201 articles were gathered using keywords in all databases. According to the limitations of language and the source of publication, articles reduced in 2999. Then, scanning their titles, 533 articles were found relevant with the aim of this paper. Next, examining their abstract, 271 were accepted. A number of studies were rejected because their full text was not accessible. A prompt investigation was conducted to

verify them. This second overview highlighted that all of them should be included. So, 192 articles were examined according to their full text. Duplicate articles were deleted and 115 articles were identified. In these 115 articles, 50, were added from the backward search. Additionally, 13 more articles were added from the “forward search” and thus a total of 178 articles were revealed (Figure 1).

Figure 1: Selection process of papers-I



Search was completed when it came to common articles from all databases and different combinations of keywords. Therefore, it was concluded that the critical mass of relevant literature sources had been collected (Webster & Watson, 2002).

Classification of articles

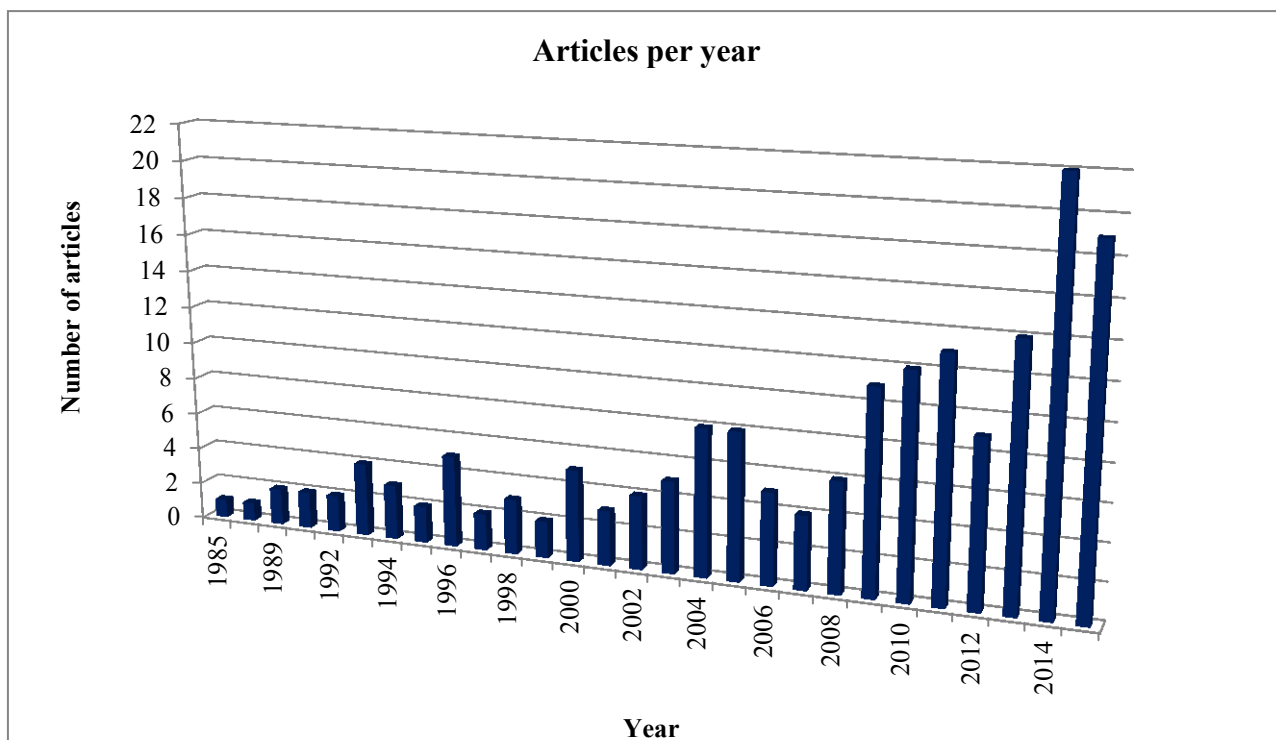
The classification of articles was implemented according to their content. The contents used were related to NSD, Service Innovation, Stages and Critical Success Factors. It seems that literature review papers are limited so it is necessary to reexamine the current state of this field. A significant observation is that researchers have focused on stages and critical success factors on NSD from the early studies. The last decade, researchers examined the factors which affect the success of new services. Finally, researchers paid attention on differences between products and services in the first period presenting (1985-2000).

Results

Number of published articles per year

Although researchers in NSD area conducted studies three decades ago, half of the papers have only been published in the last fifteen years. Such a finding highlights both the importance of the field and its continuous development. Figure 2 presents a clear increasing direction the last fifteen years.

Figure 2: Articles per year



Number of articles per journal/conference

NSD papers have been published in 74 scientific journals and 8 conferences. The following 3 journals published 11 or more articles. These journals are the Journal of Product Innovation Management, the Service Industries Journal and the Journal of Services Marketing. The other journals published less than 10 articles. Table 2 presents the journals which published the majority of NSD papers.

Table 2: Articles per journal/conference

Journals/conferences	Number of articles
Journal of Product Innovation Management	15
The Service Industries Journal	14
Journal of services Marketing	11
Journal of Service Management	7
European Journal of Marketing	6
International Journal of Service Industry Management	6
Journal of Service Research	5
Industrial Marketing Management	5
Procedia-Social and Behavioral Sciences	5
International Journal of Hospitality Management	4
Journal of Business Research	4
Journal of Operations Management	4

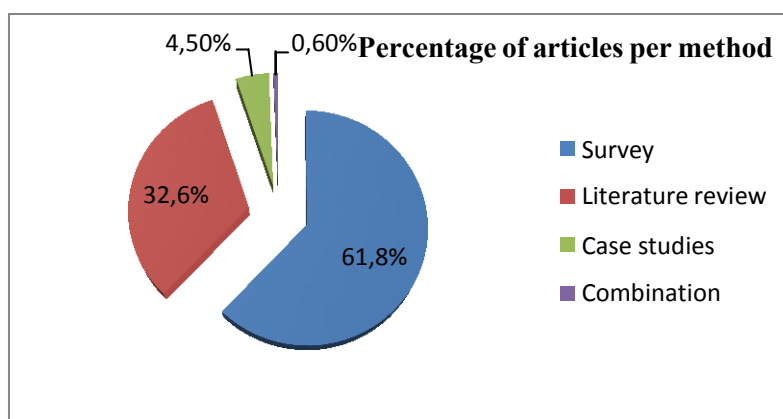
Research methods

Figure 3 shows that 61.8% of the research design were categorized as empirical, fewer

studies were theoretical (literature reviews) whereas limited studies were case studies.

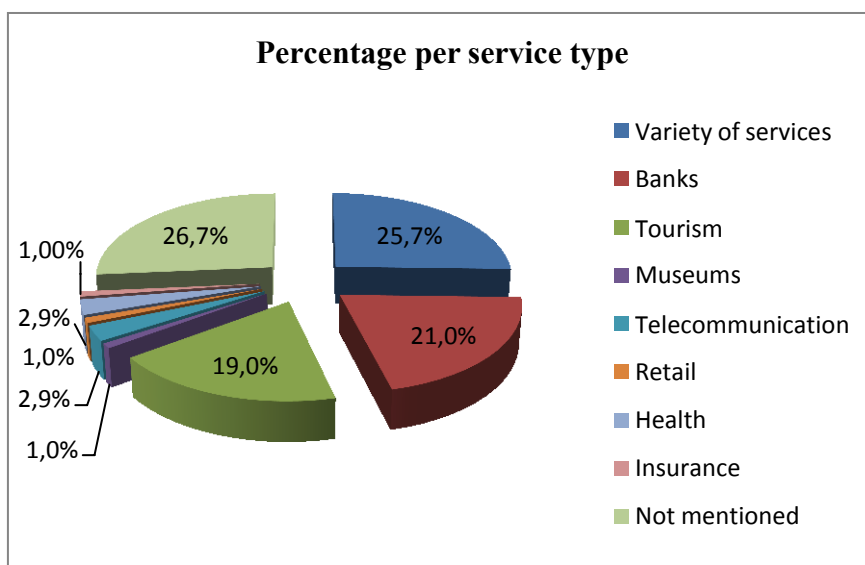
The results confirm scholars' notifications that despite the importance of this field, limited literature reviews studies have been implemented (Adams et al., 2006; Biemans et al., 2016; Tranfield et al., 2003; Smith et al., 2008).

Figure 3: Percentage of articles per method



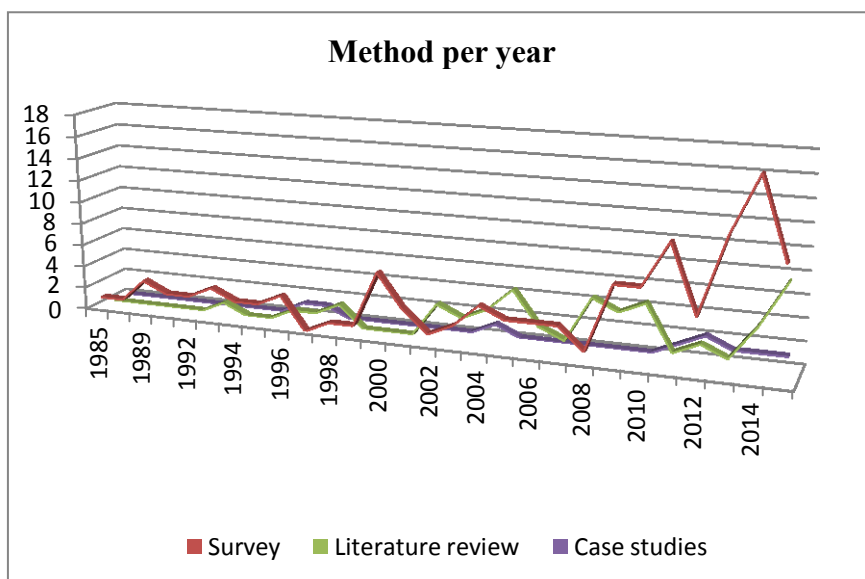
From the 61.8% of empirical studies, 25.7% of them investigated a variety of services. Then 21.0% of researchers conducted surveys in financial services. Fewer surveys (19.0%) were implemented in the tourism sector. Limited studies were conducted in sectors such as museums, telecommunications, health, retail and security (Figure 4).

Figure 4: Percentage per service type



As the method of empirical research is the most common especially in early studies (1985-1996) and in current studies (2008-2014), Figure 5 compares the techniques used for data analysis.

Figure 5: Method per year and number of articles per method



In early studies (1985-2003), the most frequently analytic technique was ANOVA. In current studies, techniques such as CFA and SEM are more frequently used. Also, in recent studies, techniques such as Multicriteria Analysis are used. Literature review papers were limited since 2002 but they have increased during the previous decade. For this reason researchers propose to create structured literature reviews in order to synthesize the existing knowledge and highlight research gaps (Tranfield et al., 2003).

Analysis and Results

New Service Development Stages

A significant remark which is observed by the presentation of the models is that NSD stages have been reduced in the last decades. The first NSD model in 1989 included 15 stages but current models involve approximately 5 stages. An explanation could be that

researchers have tried to make the NSD process smoother and they tried to reduce the stages in order to develop the new service faster. Another explanation could be that several stages are implemented simultaneously, so many stages are overlapped. Table 3 presents the NSD stages which have been proposed by researchers during the last decades.

Table 3: NSD stages

	Melton & Hartline, (2010)	Menor <i>et al.</i> , (2002)	Avlonitis <i>et al.</i> , (2001)	Papastathopoulou <i>et al.</i> , (2001)	Scheuing & Johnson, (1989)
1.	Design	Design	Idea generation & Idea screening	Strategic planning	Formulation of new service objectives
2.	Analysis	Analysis	Market analysis	Market analysis	Idea generation
3.	Development	Development	Technical development	Idea generation	Idea screening
4.	Launch	Launch	Testing	Idea screening	Concept development
5.			Launch	Concept development	Concept testing
6.				Concept testing	Business analysis
7.				Business analysis	Project authorization
8.					Service design/testing
9.					Process and system design/testing
10.					Marketing program
11.					Personnel training
12.					Service testing
13.					Test marketing
14.					Full-launch
15.					Post-Launch review

Avlonitis *et al.* (2001) & Gounaris *et al.* (2003), proposed a model including five stages, named; idea generation and service concept, service development, service testing and launch. The first stage involves the generation and evaluation of the new idea. In this stage, ideas are systematically collected and reviewed. Then, they are translated into a full service concept, according to market share, profitability and satisfaction of needs. The second stage includes the analysis of the market and the determination of marketing and especially the analysis of market trends, customer needs and the economic analysis,

as well as the development of a complete marketing plan for the service. The third stage involves the technical development of the service. Operating/delivery systems that would support the service, as well as the service “prototype” are developed. In the fourth stage there is a testing of the level of acceptance of the new service through its marketing strategy. In the final stage, the new service is introduced in the market and feedback by customers is received. This model could be considered as a brief description of the model which has been suggested by Scheuing & Johnson (1989). They include similar stages but they are more detailed.

Later, a model which consists of four phases named, design, analysis, development and market introduction was presented. In the first phase, the objectives and strategy of the service development, new ideas and their evaluation are determined. In the second stage, both business analysis and the project plan are developed. Next, in the development stage, the new service systems are designed and the marketing plan is developed and tested in order to support the pilot run of the market research. In the pilot run, businesses aim to test the new service in a limited sample of customers in order to examine their attitudes and their perception to buy the new service. In the final stage, the new service is introduced in the market and customers provide feedback to businesses to improve the new service or to take new ideas from the environment for the development of new services. In this model, researchers highlighted that systems, technology, enablers such as managers and the development team are involved in each stage of NSD process (Menor et al., 2002).

The previous models have given to researchers a solid ground and now academics can move on with an integrated approach to service innovation process. Ideas which are used as inputs in innovation process are generated by employees, customers and suppliers. Businesses have developed an innovation strategy based on their

resources. Employees, customers and suppliers participate in innovation process and they can generate new ideas to develop innovative services. The results of the successful implementation of innovation process can be various for employees, customers, as well as for organization impacts and business' performance. These results could be a source of knowledge for the successful process of NSD and they open up possibilities to think about provide feedback to managers in order to improve the process. Specifically, employees are more satisfied and they can participate in idea generation process. Also, customers are satisfied with the new service and more loyal to the business because it satisfies their needs and expectations. Cooperation, trust and networking are increased in the business as each enabler to the NSD process is satisfied and the new service is successful. Quality, productiveness and response time are improved as well as revenues of new services, time to break-even, market share. This model concludes with the evaluation of the performance level of each enabler (Dervitsiotis, 2010).

It was about to say that findings show that scholars were “forced” to propose many models for the development of new services which include similar stages. But there are a few differences among them. It also becomes obvious that the subject of suggesting a model which will take the common stages into consideration and it will be suitable for each type of services is required. Also, factors such as customers and employees involvement, support of management, innovation culture and the formulation of a NSD strategy should be involved. What it is noticed in previous studies is that the analysis of these models indicates that the influence of Information Technology in NSD has not been referred in stages. Researchers have not focused on how technology can support the generation of new ideas, the business analysis, the development of new

services, the marketing test and the launch of the new service. Future research can investigate the impact of new technologies on each stage.

Critical Success Factors

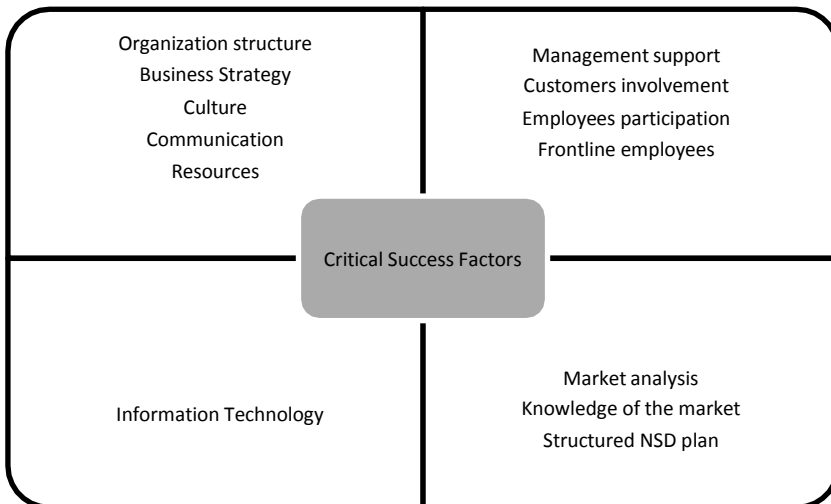
Managers should support the innovation climate and the generation of new ideas by employees. There is a risk that service design can be considered as a combination of all the tangible and intangible service details which are necessary for a better customer experience. In service design, aspects concerning the service environment, process and employee are defined and linked effectively for an improved customer experience. The service must be useful, accessible and demandable by customers, as well as it intended to be effective, efficient and different from the competitors (Akoğlan Kozak & Acar Gürel, 2015; Okoe et al., 2018). So, several factors have been studied by researchers in order to maximize the efficiency of the process as well as the success of the new service.

Businesses can benefit from Information Technology when they design or modify new service processes. Organizations use Web services for customer information inquiry and consultation, enrich multi-channel purchasing features and enhance after-sale services. These businesses which use Information Technology applications to analyze and identify customer needs and preferences can increase their service innovation processes. Previous findings conclude that technological capability positively affects customer service and service process innovation. Quite honestly, these results have important managerial implications as managers try to increase performance by using technological resources (Akoğlan Kozak & Acar Gürel, 2015; Alam & Perry, 2002; Avlonitis et al., 2001; Chen & Tsou, 2012; Ryzhkova, 2015).

Information Technology facilitates knowledge sharing which is necessary both for idea generation and development process (Ray et al., 2005). Internet supports

organizations to develop and distribute their services more efficiently. Also, Information Technology improves the quality of service, it limits costs and it contributes to the increase of customers' satisfaction (Ottenbacher & Harrington, 2010). As, new technologies have created opportunities for companies which develop high technological services, businesses can increase the value offered to customers, personalize service and adapt to customer needs (Chen & Tsou, 2012; Nardelli, 2017; Van Riel et al., 2004). Researchers realized that a challenge which comes from the development of new technologies is that the use of these technologies in the NSD process requires knowledge, training and support from employees (Gölpek, 2015). All these factors are classified in organizational, technological factors, factors related with people involved in the process and factors associated with the process and are presented in Figure 6.

Figure 6: Critical Success Factors



The most important thing is to align the new service strategy with the business strategy in order to meet customers' needs. Benefits of alignment include the strategic selecting of the markets to enter, the strategically planned projects which enable the business to take advantage of synergy between similar innovation projects and the support of learning. So, businesses can repeat previous actions of successful services

(Baradarani & Kilic, 2017; Van der Panne et al., 2003). Managers should support the innovation climate and the generation of new ideas by employees. Further research should be focused on how training should be implemented to employees or how can technological innovation be implemented? (Klein & Knight, 2005).

Employees' and customers' participation in idea generation is significant because they can suggest features for the new service according to customers' needs. Also, their participation in testing can evaluate the acceptance of the new service (Avlonitis et al., 2001). Employees' participation can increase their loyalty and the understanding and support of the NSD when it is launched (Ottenbacher & Harrington, 2010). Melton & Hartline (2010), conclude that employees' participation is more effective in launch stage rather than in idea generation stage because they can improve customer perceptions of new service quality, ease of use, brand name and increase sales performance.

In particular, frontline employees interact with customers, learn about their expectations, their behavior and their needs and provide important information about them (Rubleske et al., 2009). As frontline employees learn the expectations and needs of customers, they can support the development of new and successful services. As frontline workers contact with customers and learn about their preferences and needs, they affect the reactions and behavior of customers for the new service, as well as they are able to suggest new ideas that will satisfy customers' needs (Baradarani & Kilic, 2017; Ottenbacher & Harrington, 2010; Tajeddini, 2011). However, they should be trained to develop new services effectively (Melton & Hartline, 2013). Employees' participation in the development of new services could be enhanced by providing incentives to them, either financial or not (e.g. recognition programs) (Boukis & Kaminakis, 2014; Wirtz & Jerger, 2016).

Frontline employees have different roles when they develop value propositions and when they deliver them. They contribute their knowledge about customers in the stage of innovating value propositions. They are involved in service innovation endeavors by contributing their knowledge about customers when they interact with them during co-creation. In the delivery process, frontline employees should be trained about the value proposition in order to help customers to align the value proposition with their value creation process but without changing the value proposition. Frontline workers can use their knowledge obtained by co-creating value with customers in order to suggest customers interface and access right information about them (Hsiao et al., 2017; Karlsson & Skålén, 2015; Wirtz & Jerger, 2016). So, frontline employees are significantly contributed in the full launch stage where they can increase the quality of new service delivery. Their participation in full launch positively influences service marketability, which increases sales performance. Through their effective participation in the full launch, frontline workers can make better customer perceptions of new service quality and brand image of the expertise of the organization which provides the new offer (Melton & Hartline, 2010).

More specifically, communication with customers is a source of ideas and customers' participation in the innovation process supports the alignment between innovation and customer needs and reduces the time of introduction of the new service in the market, as employees have interacted with them and they know their needs (Ordanini & Parasuraman, 2011; Weyers & Louw, 2017). Customer participation in the innovation process for new services increases the understanding of their needs and preferences so customers feel committed to the business. Businesses that focus on the needs of their customers innovate more and customers are prepared to pay to purchase

this service, because it offers added value to them. Furthermore, they will more possibly repeat their purchase in the future (Grissmann et al., 2013; Jaaron & Backhouse, 2018).

Customer participation in development and full launch stage does not significantly affect service marketability because the identification of customer's needs and conceptualization of a new service to meet those needs is likely considered in the design stage. Thus, customer involvement in the development stage does not influence the needs that are determined, but instead affects the thoroughness of launch preparation (Furrer et al., 2016; Melton & Hartline, 2010). Few surveys conclude that customers' participation is more effective in development stage because they can re-define their needs and give feedback to businesses. Customer involvement in the innovation process for new services increases the understanding of their needs from the business and their commitment. Businesses that focus on the needs of their customers innovate more and customers are willing to pay to purchase this service, because it adds value to them and they will more possibly repeat their purchase. So, further research should be done to examine how customers can participate in NSD process (Åkesson et al., 2016; Grissmann et al., 2013). Although previous surveys have concluded that customer orientation has significantly affected product development, no straightforward investigation has been implemented on the impact of customer orientation on the development of service.

Other significant critical success factors in the development of new services are related with the organizational structure and include management support, the innovation climate, the structure of the organization, the management style, learning processes and feedback (Eveleens, 2010; Van der Panne et al., 2003). Organizational structure concerns the way employees are grouped and work. Many surveys have been done concerning the situational and psychological factors supportive of innovation in

organizations. Researchers concluded that both structural and cultural elements in organizations make a difference to the level of innovation (Adams et al., 2006). The results of previous surveys indicate that flexible organizational structures, high levels of formalization and a high level of involvement in decision making process are significant antecedents of new service performance (Lievens & Moenaert, 2000). An open, informal organizational climate which supports the sharing of information and innovation significantly affects the success of NSD. It therefore can be recommended to create the conditions that facilitate the informal exchange of information not only among different departments and teams but also technological and customer information strongly and positively affects the internal innovation climate (Van Riel et al., 2004).

Quite honestly, researchers have paid attention to studying critical success factors of new services in different sectors. The majority of these services have been focused on financial services. The personalization of the service, the design of a pioneering project and the improvement of the customer experience lead to the success of new services. A climate of cooperation and innovation is required in order to align the new service with business resources and to increase service quality. Also, the new service should be directed to attract markets. There is a risk that businesses should fully understand the needs of customers to align them with the available resources and the process of NSD distinguished by quality at all stages. It is necessary to quickly introduce the new service in the market to improve the customer experience but they have to use a structured plan for conducting research, design and marketing of the new service to be aligned with customers' needs (De Brentani, 1995).

Table 4 presents a classification of critical success factors according to service sectors.

Table 4: Critical Success Factors in Service Sectors

Authors	Sector	Success Factors
(Alam, 2011; De Brentani, 1995; De Smet <i>et al.</i> , 2013, Edgett, 1994; Konu, 2015; Lievens & Moenaert, 2000; Menor & Roth, 2007)	Financial services	Climate of cooperation and innovation Needs of customers, customer experience, customers involvement Resources and capabilities Structured plan Support of management, Enthusiasm of the team Knowledge of the market Alignment Information Technology, communication
(Akoğlan Kozak & Acar Gürel, 2015; Carvalho & Sarkar, 2014; Edvardsson <i>et al.</i> , 2013; Kitsios <i>et al.</i> , 2009; Kitsios & Sindakis, 2014; Ottenbacher & Harrington, 2010; Sandvik <i>et al.</i> , 2014)	Tourism services	Resources and capabilities Needs of customers, customer experience, customers involvement Employee understanding, motivation, commitment, support for NSD projects
(Weng & Huang, 2012)	Health services	Knowledge for customers Employees participation
(Angelopoulos <i>et al.</i> , 2010)	E-government	Behavior of the organization for the service innovation Organizational structure Idea generation sources Actions for NSD Resource allocation

While researchers were focused on investigating critical success factors in many fields and especially in financial services, the tourist industry hasn't been thoroughly researched so far. As the failure of the new services is relatively high, the hotels have to design and develop their service systematically in order to take advantage. The most common reasons for unsuccessful efforts are related to the unsystematically design and lack of service design knowledge and skills. Hotels that have a formal process, systems and processes, improve their efficiency and the new service is introduced more quickly in the market (Edvardsson *et al.*, 2013). Moreover, experiences of the employee can provide useful information, since they have an important role in the service system, especially in customer interaction. The main goal in design is to satisfy the customer's needs (Akoğlan Kozak & Acar Gürel, 2015). Employee understanding, motivation, commitment, and support for NSD projects are important for the development of hospitality services. It was about to say that employees need to understand and support

the service and they should be fully committed to it because their training is not enough for their involvement in NSD process (Ottenbacher & Harrington, 2010).

What it is noticed in previous studies is that researches which have focused on critical success factors in cultural and health sectors are limited. Kitsios et al. (2015), conducted a survey in the cultural industry of Greece and they highlighted that success factors are business analysis, business strategy, synergy of the market, generation of new ideas and the influence of organizational structures. The findings are similar with the survey of Kitsios et al. (2015), in tourism services in Greece.

Rapid technological change develops opportunities to implement new services. Recent trends in new technologies have enhanced numerous service innovations ranging from electronic government and e-health to advanced multi-channel management, customization of services, introduction of self-service concepts and virtual project teams (Carbonell & Rodriguez Escudero, 2015; Kitsios et al., 2018).

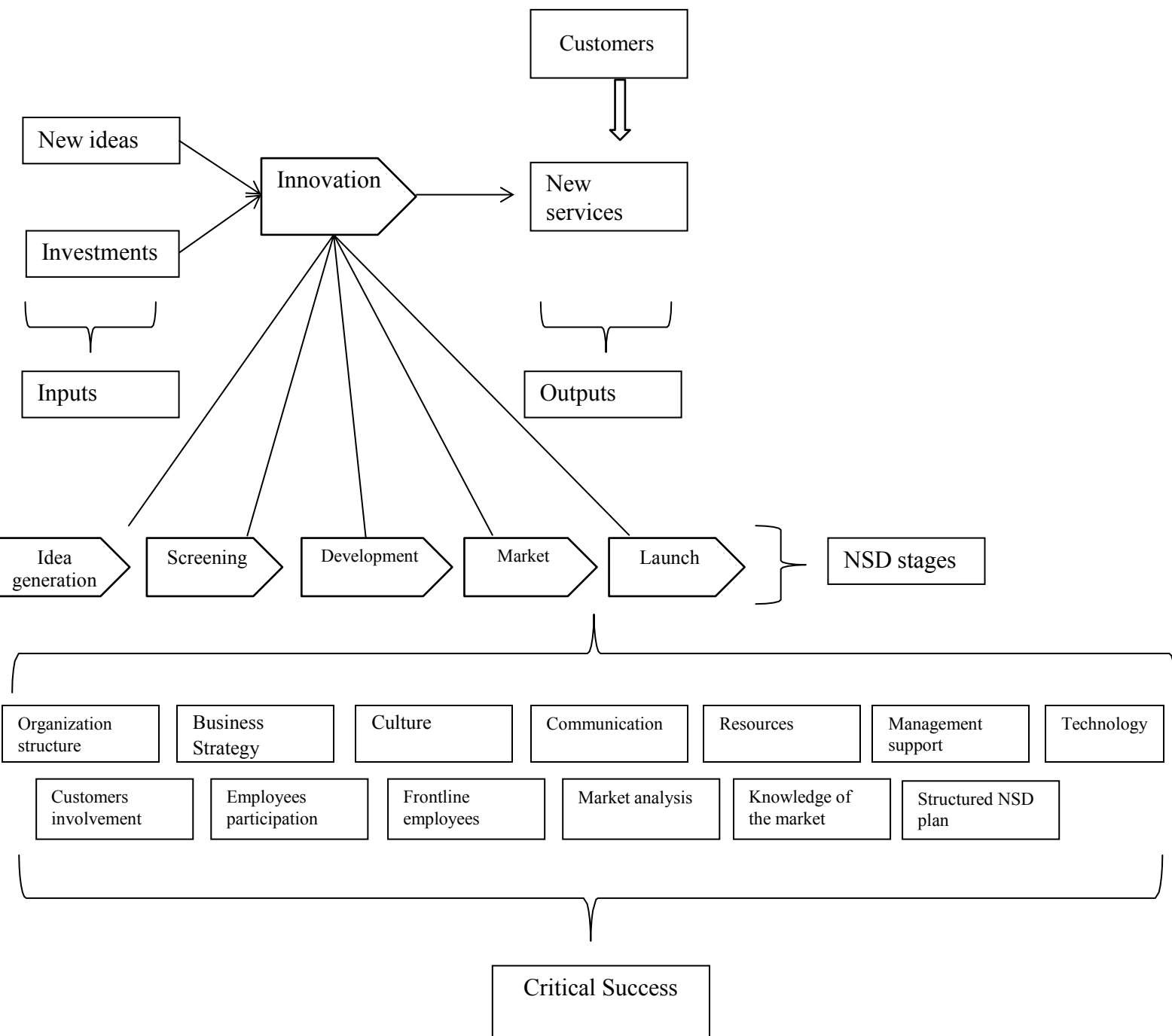
Weng & Huang (2012), indicate that the success factors in health services are related to the knowledge about customers, though which businesses can produce services that will satisfy them. The knowledge about customers gives hospitals the opportunity to offer innovative services and to increase their performance. When employees interact with customers, they can increase the knowledge about them and generate more innovative ideas, which enhance the performance of the hospital.

In e-government the important success factors concern the behavior of the organization for the service innovation, the idea generation sources, the actions for the development, the organizational structure impact, the resources allocation impact on the organization as well as the impact on the relevant marketplace (Angelopoulos et al., 2010).

As financial sector was the first field which was surveyed in this area, researchers have paid attention to management support, strategy and communication to provide successful financial services. On the contrary, surveys in tourism do not include factors about Information Technology and Research and Development capabilities. Hotels innovate with the use of Information Technology in the current competitive environment and they should be supported by Research and Development capabilities. This is an interesting finding, because hotels innovate with the use of Information Technology in the current competitive environment and they should be supported by Research and Development capabilities. Managers in financial services and services in health sector use Information Technology to provide new flexible and innovative services. Therefore, surveys in tourism should be continued to study the impact of Information Technology in the success of new services. Studies in health and e-government sector are limited, so the evaluation of the existing models could be helpful in order to provide knowledge about which factors are important. A remarkable finding is that customer involvement does not appear in e-government sector as a critical success factor. This is an opportunity for further research as the specific sector is characterized by the interaction between customers and policy in order to improve services. Also, the impact of Information Technology should be examined in the development of new services in e-government because it is a digital sector.

The existing studies have given a solid ground and now a conceptual framework can be developed based on the literature study. Using an open coding technique in the content analysis of the 178 papers with the purpose of dividing the categories to be used into the classification of the papers gave readers a good indication of the issues of concern (Figure 7).

Figure 7: Conceptual Framework



An indication of the relevant topics in each “field” will be presented in terms of questions to be asked:

- Which criteria should be used in evaluating the NSD process?
- Which strategy should be implemented according to the characteristics of each industry sector and type of business in order to develop successful service projects?

- Which critical success factors should managers have in mind during the implementation of service projects?
- How do the characteristics of services facilitate and reinforce processes of new service strategy implementation?
- Which strategic, managerial, operational and organizational benefits are the results of the NSD project?
- To what extent does the NSD leads to technological investments?
- Which NSD model is suitable for each type of industry?

Discussion

After 30 years of research in service innovation, the previous studies have given researchers a solid ground and now they moved on with cross-sectional data using different geographical/cultural settings. Responses from single responders may affect the results of the survey. One emergent issue is: What are the cross-national differences in the NSD models of organizations from developed and developing countries? (Adams et al., 2006; Alam, 2011; Avlonitis et al., 2001; Hillebrand et al., 2011; Kitsios et al., 2009). Journals which published studies in NSD are focused on Marketing and Operation Management. Despite the increasing number of NSD publications the body of innovation knowledge is limited and managers still try to find out how they could efficiently manage the NSD process (Biemans et al., 2016).

Within the rapidly changing business environment managers have focused on the role of innovation in gaining competitive advantage. Although many service executives support that new service development is something that just “happens”, the findings from this literature review may be used as a diagnostic tool which allows executives to become aware of organizational characteristics that need to be taken into

consideration when trying to develop successful new services. Managers have to realize that they have to improve both customers' satisfaction and service quality, as well as service innovation in service design in order to survive and compete in the current increasingly demanding environment (Andreassen et al., 2016). Design thinking support organizations ensure that customer needs are well-integrated into the NSD process, especially because customers are often the main contributors of the resources required for developing the service offering. In this respect, it would be useful to start exploring how managers could involve their customers in co-creation during the service innovation process, because the customer's ideas are often more creative and valuable than the ideas found within the organization. Carefully researching customer preferences early in the NSD process supports firms avoid a gap between customers' expectations and outcomes of service offering. It is about to say that managers should examine which practical tools and techniques can be developed in order to increase customer participation and what methods of customer participation are effective during the stages of NSD process.

Service managers should pay attention to NSD stages. These stages are very important because businesses can be informed about customers' needs and they can launch the new service before its introduction to the market. Researchers have proposed models for the successful process of NSD since 1989. These models consist of different stages, but they have several similarities (Lievens & Moenaert, 2000; Menor et al., 2002; Scheuing & Johnson, 1989; Storey & Hughes, 2013). It is important to compare the stages of these models and to evaluate them in different sectors in order to examine if it is possible for researchers to conclude to a model which can be used in all service sectors. A research emphasis on the initial stages, such as idea generation and idea screening can guide managers on establishing NSD mechanisms that lead to successful

new services. This helps them to think outside the box and searching for new ideas. In order to achieve this, they should foster a climate that supports innovation and create a cross-functional team in order to cooperate and generate new ideas. Equally critical is the development of a business plan and the formulation of a marketing strategy which are the main activities of the pre-development project planning phase. This phase of NSD process is important because it controls the uncertainty involved with the projects as well as its outcome. Thus, managers face the challenge to find a balance between formalization and creativity.

What it is noticed in previous studies is that successful projects are more possible to be achieved when service managers focusing on employees' systematically training and spend significant money on it. By establishing knowledge sharing and organizational learning between employees and customers throughout the development process, service managers can improve NSD performance. Furthermore, facilitating new working methods with customers support organizations to integrate customers into the existing development process. In this respect, future research attempts can combine the existing literature and examine why frontline employee participation in NSD is less effective in the design and development stages than in the full launch stage. Possible avenues of future research include the determination of how frontline employees might have a more meaningful contribution during the early stages of the NSD process.

Conclusions and Further Research

The purpose of this literature review was to present a state of the art of NSD. The study is based upon an analysis of 178 papers, derived from databases and categorized according with the main issues of this emerging research area. The paper is a good starting point for researchers wanting to study NSD based on a methodological framework. Using this methodology for conducting structured literature reviews, they

are provided with the disciplines and topics of NSD.

The main findings of the above analysis can be summarized as follows. First, there is an increased number of papers in this area and especially during the last years. Second, researchers have focused on studying critical success factors and especially organizational factors and stages of NSD. The majority of these studies are empirical and they focused on financial services. Data analysis was conducted using ANOVA, CFA and SEM techniques, but multicriteria analysis has started to be appeared. Finally, multirespondent surveys have started to be used.

This paper provides an overview of the current state of the field and it can help researchers to expand it and to position their study. NSD is an immature field, so it could inspire researchers for empirical investigation. Managers can assist to understand the characteristics of new services, the factors which affect their successful development as well as the stages which are included in the NSD process. It is anticipated that the effective development of new services will be increasingly important in next years as a result of rapid developments in new technologies and changing customer needs or preferences. The usefulness of this paper is important for researchers who are interested in studying to expand the knowledge in this area and they can use this literature review to position their research.

The added value of this paper is the useful overview of the state of innovation in NSD, which highlight interesting issues among NSD research domains, while providing a complete overview of literature from a different perspective, not implemented in existing analyses and thus it will be a good starting point for PhD students and other researchers. This literature review may be of interest to academics who are already studying service innovation or NSD-related scientific areas, or researchers who have been introduced to the field but they are interested in examining more specific insights

into where current research topics in this literature can be located, and how they may contribute to them.

Finally, some suggestions for further research in NSD literature review are provided. The field of NSD is broad and researchers suggest that the literature review of this field has to be associated with others, such as Information Systems, Organizational Theory or Strategy, in order to constitute categories of success factors of new services (Carlborg et al., 2014). After 30 years of surveys in this area, further research is needed to expand the knowledge in field of NSD. A good starting point could also be to first replicate and further expand the existing literature already conducted by previous researchers on this field.

Given the importance of operational issues in NSD, there is a need to bridge the gap between the differences of NSD in different sectors and the factors which affect the development of new services in each of them. The existing literature is focused on production-intensive services like communications, banks and insurances. It implies that the findings of this literature review cannot be generalized to other service sector. As a consequence, future research should examine organizational characteristics for these sectors. Topics for future research may include the resources required to design a successful service system and the role of new service executives from different disciplines.

Also, NSD models should be implemented in different industries in order to conclude to one. How managers can effectively develop new services in each sector due to the specific characteristics of each industry hasn't been addressed by scholars yet. Also, the effective design of service systems is influenced by rapid changes in Information Technology, globalization and changing customer needs. This paper provided an overview of models but the analysis of possible differences between the

sets of routines and tools taking into consideration the various characteristics of innovations could be useful. Future researchers might explore the practical use of innovation management routines that stimulate the innovation process. It would be interesting to develop a common framework for studying the innovation process capturing the aspects of success factors in NSD.

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