Moving Beyond the Stage Gate Models for Service Innovation: The Trend and the Future

by

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Abstract. Extant research has studied the key issue of service innovation process and stages also known as New Service Development (NSD) models extensively, yet most of the studies were carried out almost a decade ago and that too in a single country or region. Thus, a key question emerges: how far these new service models and techniques are applicable in the present day turbulent and dynamic market place. Against this background the purpose of this research is to rekindle the debate on how the service innovation takes place and propose a new set of guidelines for developing new services. We answer the above research questions by conducting a multi-country study of the process of NSD. For this research, we investigate 158 new service projects in 79 financial service firms located in two developed nations, USA and Australia and one emerging economic power, India. The findings suggest that the existing NSD models and the innovation process reported in the extant literature are deficient in meeting the needs of the service firms located both in the developed and emerging markets of the world. Instead of the stage gate and linear process model, we suggest an overlapping, phase wise, informal and shorter NSD process model.

Key words: Emerging Market, Longitudinal Study, New Service Development, Service Innovation

JEL classification: M30 General, M31 Marketing

1 Introduction

The research on New Product Development (NPD) has made a substantial contribution to our understanding of the overall innovation process. However, the relatively narrow focus on tangible products has largely failed to account for the intricacies of the innovation process as it applies to new services. Services differ from tangible products due to the four unique characteristics of intangibility, heterogeneity, inseparability and perishability (see Lovelock 2001; Zeithaml & Bitter 2000), and therefore New Service Development (NSD) must also be different from the new tangible product development (Atuahene-Gima 1996; de Brentani 1989). Consequently, in the last decade both the practitioners and scholars alike have focused their attention on the innovation process as it applies to new services and proposed innovation models, also known as NSD models exclusive to new services. While these research have shed much light on the key issue of service innovation process and stages, most of the studies were carried out almost a decade ago and that too in a single country or region including, Australia (Alam & Perry 2002), Canada (de Brentani 1995), Sweden (Edvardsson et al.1995), the United Kingdom (Kelly & Storey 2000; Storey & Easingwood 1996; Edgett 1994) and the United States (e.g. Alam 2003; Bowers 1989; Scheuing & Johnson 1989). Yet, the overall marketing of services and NSD practices transcend national boundaries due to the globalization of markets (Bouquet et al. 2004; Capar & Kotabe 2003). In addition, many service industries have undergone major structural changes in the last few years (Ostrom et al. 2010). The advent of social media, improvement of digital technology and major changes in customers’ preferences and lifestyle have transformed the process of production, delivery and consumption of both business to customers and business to business services (Kunz and Hogreve 2011). Thus, a key question emerges: how far these models and techniques created almost a decade ago in a single country or region are applicable in the present day turbulent and dynamic market place. Against this background the purpose of this research is to rekindle the debate on how
the service innovation takes place; and propose a new set of guidelines for developing new services that are relevant to the needs of present day service firms. Thus the research question that we intend to answer is: What is the new process of developing new services?

We answer the above research question by conducting a multi-country study of the process of NSD. In particular, we investigate a number of new service projects in 79 financial service firms located in two developed nations, USA and Australia and one emerging economic power, India. We selected these countries for our study to achieve maximum variation sampling and get varied perspectives of service innovation. We chose financial services for this research because of our desire to investigate the service firms in a highly competitive, innovative and technology driven industry. In addition, this research focuses on business-to-business services because there is a need for more research on business-to-business service industries (Kunz and Hogreve 2011). The rest of the article is organized as follows. The next section presents the literature review. This is followed by a discussion of methodology. Next, we present our research findings and discuss managerial implications. The article concludes with a discussion of research limitations and future research agenda.

2 Literature Review

The literature of service innovation reports a few linear NSD models. First, Bowers (1987, 1989) describes a set of eight linear stages for developing new services in the U.S financial services and healthcare services industries. However, these two models for services are reported to be very similar to Booz, Allen and Hamilton’s (1982) model of tangible product development. Therefore, recognizing the uniqueness of services, Scheuing and Johnson (1989) used a survey of 66 U.S financial service firms to develop an expanded model of 15 stages. In both the models, the process involves the activities carried out from the moment an idea is generated up to its launch in the market. Although this second NSD model’s 15 stages are more comprehensive, the model does not address the important issues of cross-functional teams, parallel processing of the development stages and cycle time reduction that have been highlighted in several tangible product development models (see Cooper 1993, 1994). Later Alam and Perry (2002) based on the case studies of several Australian service firms proposed a simplified and improved model containing 10 development stages: strategic planning, idea generation, idea screening, business analysis, formation of cross-functional team, service design, personnel training, service testing, test marketing and commercialisation. This model is simplified and improved for three reasons. First, it removes some of the bureaucracy of the previous model by incorporating fewer development stages. Second, a key stage of “formation of cross-functional team” has been added. Third, the model facilitates parallel processing of some of the stages to fast track the overall development process. This is consistent with the stage–gate model of NPD proposed by Cooper (1993). This stage gate system divides the innovation process into several stages, each composed of a group of prescribed, related and often parallel activities. The gates work as quality control checkpoints that essentially require that certain criteria be met before the project is allowed to proceed further on to the next stage. A comparison of three linear NSD models and one tangible product model is shown in Table 1. A closer look at Table 1 indeed shows several similarities between tangible product development process and NSD model of Bowers (1987; 1989). In addition, the two other NSD models by Scheuing and Johnson (1989) and Alam and Perry (2002) are also somewhat similar in nature and scope because both run linearly.
Table 1. New Service Development Models

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<td>Alam and Perry (2002)</td>
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<td>New product strategy development</td>
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<td>New service objective and strategy</td>
<td>Strategic planning</td>
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<td>Idea generation</td>
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<td>Screening and evaluation</td>
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<td>Business analysis</td>
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<td>Development</td>
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<td>Market Testing</td>
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<td>Commercialization</td>
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<td>Service design and testing</td>
<td>Project authorization</td>
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<td>Service testing and pilot run</td>
<td>Personnel training</td>
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<td>Process system design and testing</td>
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<td>Market program design and testing</td>
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<td>Personnel training</td>
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<td>Test marketing</td>
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<td>Post launch review</td>
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Adopting an organizational learning approach to NSD research, Stevens and Dimitriadis (2004) raise doubt on the effectiveness of the linear process models shown in Table 1 and emphasize the need to integrate right skills and people at the right stage of NSD. Researchers have also found that many service firms do not adopt a systematic linear process, instead they prefer more ad hoc process and use overlapping NSD stages (e.g., Smith et al. 2007; Kelley and Storey 2000). A few more studies did not introduce any process model but added value to the existing models by suggesting involvement of customers, frontline employees and other stakeholders for a successful NSD process (Alam 2002; Kindstrom and Kowalkowski 2009; Menor and Roth 2008). A review article by Droge et al. (2009) considers the role of customers in NSD a key area of further research. They advise the scholarly community to find ways to make customer interaction an intrinsic part of the NSD process. Another body of literature considers customer interaction in NSD a major success factor for new services, because by involving customers a firm can obtain rich insights into customers’ needs and preferences (Carbonell and Rodriguez-Escudero 2014; de Brenaniti 1995). In summary the extant literature is inconclusive in answering the question about the efficacy of linear process models for the service industries in this new era of technological advancement.

On the basis of our review of the extant literature we conclude that although the strategies in developing new services and the process associated with NSD play a critical role in the success of most new services, questions concerning their applicability and usefulness in the current changing business landscape remain unanswered. In order to fill this research gap and to develop a better understanding of managerial practice associated with NSD, a multi-country study of the process of NSD is conducted.
3 Methodology

Our research design is built around multiple case research method to capture a detailed experience of NSD (Bonoma 1985; Eisenhardt 1989; Yin 1994; Meredith 1998). In addition, we employ both cross-sectional and longitudinal approaches to data collection. These methods of data collection appear to be the most suitable methods because the need to develop new theories in the area of NSD process and models. We conducted the research in two phases over a period of two years. First phase of research relates to the theory development objective of the research, while the second phase is about data testing as described next.

Phase one. In the first phase of research, we conducted cross-sectional case studies of 62 service firms and studied 124 new service projects in Australia, India and the US. The sampling frame included financial service firms situated in Mumbai, India, Sydney, Australia and New York City, USA. These financial service firms were the large firms serving corporate customers by providing investment banking, trust management, cash management, global payment services; syndicated loans; commercial mortgage; money market accounts and equipment finance and leasing services to a wide range of business customers in their respective markets. We took care to select the key informants through the telephone and email identification and pre-notification method. All the respondents had two key characteristics. First, they were experienced practicing managers in service development or a related position; second, they were closely involved in their respective NSD projects. We conducted in depth interviews using an interview protocol. Each interviews lasted for about two hours. All the interviews were tape recorded and detailed notes were taken.

In this phase of data collection we also conducted desk research that involved reviewing participating firms’ documents and archival records related to their NSD efforts and initiatives. These records and documents included marketing reports, minutes of the meetings, consultant reports and sales reports and data. The unit of analysis was the program rather than the project level. That means we focused on the overall innovation program of the participating firms rather than the individual NSD projects.

Phase Two. The above case studies produced extremely rich and insightful information about various NSD activities of the participating firms. Armed with the information collected in the first phase of the research we investigated additional 34 new services in 17 firms in real time in the USA as they were being developed. The purpose of this second phase of the research was to test the applicability of the findings from phase one. This research design for this phase included the longitudinal case research method proposed by Pettigrew (1990) and used by Gebhardt et al. (2006) and Narayandas and Rangan (2004) that are designed to test theories. We chose longitudinal field research method to identify the main sequence of events of the NSD process while they happen and to avoid the ex-post rationalization phenomena (Van de Ven and Huber 1990). For example, our method combines qualitative data collection techniques, such as in depth interviews, brainstorming, ethnographic observation, action research and archival records analysis. Combining multiple data collection methods in conducting inductive field research may offer rich insights into the subject matters being studied (e.g. Deshpande, 1983; Eisenhardt, 1989). We developed insights from the literature to iteratively synthesize findings both from field research from phase one and two and the extant literature and develop a comprehensive understanding of the NSD process (e.g. Ulaga and Eggert, 2006; Workman et al., 1998). We managed interview transcripts, field notes and archival records electronically using QSR International’s Nvivo software that allowed us to code all the data. Using this software we highlighted the key quotes and emerging themes in the data. The case study database containing 234 pages of transcripts was sent back to the research participants for member checks. All the participants returned the case study data base after minor corrections.
Findings and Discussions

Our data collection and data analysis continued simultaneously throughout the research process. Using an inductive approach that includes moving from data to emerging theory (Kerlinger 1986) we reviewed and contrasted the data with the extant literature throughout the research process. The data pattern suggests that the current innovation process models reported in the extant literature may not be applicable to the service firms any more. Several stages of the development process are either redundant or ineffective in achieving the desired outcomes. For example, the first stage of the development process, strategic planning is not widely used by the firms studied in this research. The process of idea generation has changed markedly as many service firms are opting for a me-too strategy rather than pursuing a breakthrough innovation. They consider breakthrough innovations rather costly and risky to pursue. The role of product champions in innovation has also diminished remarkably because the risk taking ability among managers has declined in recent years. In contrast, the front-line service delivery employees now play a critical role in new service idea generation than the specialized NSD teams. The use of NSD teams and cross-functional integration is dwindling because of the need for a more informal process and faster NSD cycle time. Managers’ whims and fancy and gut feelings about the success are more important than the bureaucratic process and norms for NSD. The majority of service firms have started to use a shorter development cycle time. The advancement of digital technology and social media is driving this trend towards the shorter development cycle time. Due to market pressure, economic downturn and rising competition, many service firms are willing to take risk and develop services faster bypassing several key stages of the development process. For example, due to the prevalence of me-too strategy the test marketing stage is not used by many service firms. In fact, a short term approach to innovation is prevalent in the service firms both in the developed and developing nations. The new NSD must also address the bigger challenge of customer-employee interaction and also manage the customer interaction effectively. Customer inputs need to be integrated throughout the process and not just the idea generation stage. After the completion of the two phases of our research we could propose a new model for developing new services that might be applicable to the firms both in developed and emerging markets of the world as shown in Figure 1. This new NSD model comprises of four phases: the initiation phase, the comprehension phase, the corroboration phase and the execution phase.

In the first phase the ideas for the new services are developed. Anyone in the firm can initiate the ideas yet the initiation of ideas by the customers is the most important part of the process. Many service ideas can be extracted from the social commerce and customer to customer interactions via social media. Service development staff of a firm needs to initiate their search for social interaction and social chatter via internet during the initiation phase. For example, in a few Indian cases, a review of social media LinkedIn postings led to new service ideas as a noted by a respondent:

Social media interaction with our business clients is the norm in our organization. We regularly review postings and try to sense customers’ problems and needs. These social media initiatives and interactions have provided us several new service ideas.

In the comprehension phase the ideas are crystallized and blueprints are developed jointly with the customers. A working model of the service delivery process is generated during this phase of the process as well. The third phase is about the service development and testing. The customers participate in various mock service delivery processes and provide critical feedback on various aspects of the service delivery. At the fourth and final phase the same customer groups adopt the service on trial basis and promote the service in the wider market and within their own social network.
In essence customers are the integral part of this new process reported in our case studies. Customers can provide many ideas and conduct many activities in all the four phases of the development process as summarized in Table 2. Of the above four phases, the first three phases can run simultaneously and overlap. For example, while still searching for new ideas the service development teams can continue doing the concept development work at the comprehension phase. The customers can work on service testing at the corroboration phase and at the same time can provide new ideas for services that are part of the initiation phase of the process. By conducting these phases of NSD simultaneously a service firm can fast track the development process and introduce the new services in the market in a much shorter period of time.

**Table 2. Customer Activities at Various Phases of New Service Development Process**

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<th>Phases</th>
<th>Activities Performed by the Customers</th>
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| Initiation Phase        | • Describe needs, problems and possible solutions  
                          • Suggest desired features, benefits and preference in a new service via brainstorming or focus group sessions  
                          • Identify problems not solved by the existing services  
                          • Evaluate existing services by suggesting likes and dislikes  
                          • Identify gaps in the market  
                          • Provide a new service wish list |
| Comprehension Phase     | • Rate the liking, preference and purchase intents of all the new service concepts  
                          • Critically react to the concepts by analysing how they would meet customers’ needs  
                          • Compare the concepts with competitor’s offerings  
                          • Examine the overall saleability of a new service  
                          • Jointly develop initial service blueprints |
| Corroboration Phase     | • Review and evaluate the initial service blueprints to crystallize the concepts |

**Figure 1. New Service Development Process**
Our findings are at odds with the suggestion of Alam and Perry (2002) that a structured development process is a prerequisite for successful NSD. In contrast, the results of our case studies imply that an ad hoc and unstructured NSD process is better suited to many services firms worldwide. We also surmise that the success of a new service directly relates to the customer interaction and the fit between company resources and market needs. The NSD process must be adapted according to the situation, market condition and types of services being developed. For example, a me-too service in a highly competitive market in emerging countries does not need a formal development process at all. In our Indian case studies we found clear evidence on the use of varied NSD models, i.e., the process changed depending upon the needs, situation and type of services being developed.

A surprising finding that deserves special attention is that the service firms in all the three countries studied in this research essentially follow an identical approach to innovation. We were expecting some divergence in results because of the cultural differences among the three nations. One explanation for this provocative finding is that the service firms and consumers alike in some of the emerging markets are becoming much more “world minded” and “cosmopolitan” due to the emergence of social media, digital technology and globalization (Beckmann et al. 2000; Cannon and Yaprak, 2002). It means that both service managers and the customers are already exposed to other cultures either passively through mass-media and communication systems or actively through living in or traveling to other cultures. During our research, we noted that almost 40 percent of the new services reported in this research were successful in achieving sales targets and other marketing objectives. Thus, of 158 projects studied over the two years period, almost 63 of such new services can be considered successful innovations because they met the company’s expectations. Such a good success rate is an indication that the phase wise NSD model proposed in this research is effective.

5 Theoretical and Managerial Implications

NSD has become increasingly important to the growth and survival of a firm in the present competitive and dynamic marketplace. However, despite the recent increase in NSD research, the literature has not addressed the challenges of developing successful new services in the current changing landscape of the market including changes in technology and competitive environment. It is surprising to note that many firms are still using the NSD models developed over a decade ago. Therefore, a primary objective driving this research is to study the question that both the practitioners and academics (e.g., Gremyr et al. 2014) have raised regarding the applicability and efficacy of the service innovation models developed in an era when many service technologies and social media were only evolving. Our findings
confirm their doubts and reservations on the present models and techniques reported in the literature. Based on the findings of our case studies we assert that the existing NSD models and the innovation process are deficient in meeting the needs of the service firms located both in the developed and emerging markets of the world. Instead of the stage gate and linear process model, we suggest an overlapping, phase wise, informal and shorter NSD process model as shown in Figure 1 above.

These four phases of innovation are the better representation of service innovation process in the present ever-changing and turbulent market place. These phases take into account the influence of social media, emerging digital technologies and the influence of emerging markets and their consumers on the marketability of the new services. In addition, in our case studies the development process has evolved from one that moves sequentially to one in which the overlapping nature of various stages is recognized and interaction with customers and other sources are considered. Customer interaction is the key component of this model because the service dominant logic (Vargo and Lusch 2004) views service customers as active co-creators of the new services rather than a passive receiver of the services (Chan et al. 2010). In addition, the role of customers in developing new services/products have been emphasized strongly in both NSD literature (e.g., Alam 2002; Droege et al. 2009; Edvardsson et al. 2012) and the wider new product development literature starting from the seminal work of von Hippel (1978) to the more recent study by Covello and Joseph (2012). Therefore, service managers need to integrate customer interaction into the four phases of NSD model reported in this research and can use the list of customer activities given in Table 2 as a guide for customer interaction strategies. In addition to customer interaction, the manager should strive to get employee participation as well. We found the evidence that when both customer and frontline service delivery staff were involved in the NSD process, they produced rich information about the customer requirement and needs.

6 Limitations and Future Research Agenda

The results of our study should be used in the context of several limitations that also offer opportunities for further research. First, we studied only one type of service, financial services, therefore, it will be useful to replicate the study in other types of services as well as other service context and tangible products to ascertain the generalizability of the results. Second, this is a qualitative study in which we collected data from the respondents in real time and via in-depth interview process and therefore our findings are more suggestive than conclusive. To further test the findings, a large scale quantitative study is needed in various global markets. Third, location of the study is a key limitation. Although the major metro cities of the USA, Australia and India are each one of the most populous regions in these countries, they may not typically reflect the values and practices of the entire population. Fourth, we did not formally measure success or failure of the new services reported in this article therefore, future research could examine the impact of this NSD model on the overall performance of the new services. Finally, our study focused only on business-to-business services, therefore the generalizability of the findings to consumer services is limited. Further empirical investigations are required to determine the transferability of the findings to consumer services.

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