Business Service Innovation: A Preliminary Conceptual Framework of Success Drivers

Joanne Ho, *The University of Adelaide, joanne.ho@adelaide.edu.au*
Vinh Nhat Lu, *The Australian National University, vinh.lu@anu.edu.au*

Abstract

Despite various calls for a better understanding of the drivers of innovation success in the service sector, research on internal and external determinants of service innovation remains highly fragmented. This paper aims to reconcile the scattered research findings in this area by reviewing the literature published over the past two decades on success factors of service innovation for business services. The studies are thematically analysed based on their theoretical backgrounds, research designs, and overall findings. A conceptual framework incorporating firm characteristics, a market factor, and inter-firm drivers as antecedents of innovation success is developed, providing directions for future research.

Keywords: service innovation, B2B, success drivers, inter-firm, relationships

Business Service Innovation: A Preliminary Conceptual Framework of Success Drivers

Introduction

The service sector has consistently made major contributions to the global economy in recent years, driving productivity and growth in national economies worldwide (Javalgi and White, 2002). It generates over 70% of the GDP and employment in most developed economies (Ostrom *et al.*, 2010; Wolfl, 2005), accounting for two-thirds of the world's total output (Javalgi and Martin, 2007). The vital role of service industries to the future prosperity of global commerce has, therefore, attracted significant research attention from business executives, policy makers, and scholars alike, especially in the area of service innovation.

Several scholars have reviewed and highlighted the proliferation of service innovation research over the past three decades (de Jong and Vermeulen, 2003; Froehle and Roth, 2007; Goldstein *et al.*, 2002; Jimenez-Zarco, Martinez-Ruiz and Gonzalez-Benito, 2006; Johne and Storey, 1998; Menor and Roth, 2007; Papastathopoulou and Hultink, 2010). However, they have predominantly focused on issues associated with the new service development (NSD hereafter) efforts of service firms. To date, the literature on internal and external factors driving the success of innovation activities of service firms is still in its infancy. Despite various calls from de Brentani (2001), Droege, Hildebrand and Forcada (2009) and Ostrom *et al.* (2010) for a better understanding of the key antecedents of service innovation success, research in this specific area remains highly fragmented (Droege *et al.*, 2009; Oke, 2007). To provide a preliminary framework of the key factors driving innovation activities in service firms, we review the relevant literature and identify groups of internal and external factors determining innovation success in business-to-business service provision.

This paper is structured as follows. We first explain the methodology employed in our study. This is followed by a highlight of the review results and an introduction of the conceptual framework. The paper concludes with some directions for future research.

Methodology

We searched for publications in the "EBSCO Host" database by applying "service innovation"/"NSD" and "drivers"/"success factors" for all search terms. We limited our search to studies conducted in business-to-business services. Additional publications were obtained by reviewing the reference lists of publications which met our inclusion criteria (backward citation) as well as publications which had cited an included article (forward citation). A total of 18 articles were identified. The timeframe in which these articles were published ranges between 1992 and 2010. They were sourced from 13 different journals such as *Industrial Marketing Management*, *Journal of Product Innovation Management*, and *Journal of Service Research*. The articles were first analysed individually by tabulating their research topics, theoretical backgrounds, research designs and contexts, and research findings. We then compared these articles in each of the following areas (indicated in the Results section) where articles with similar characteristics were grouped into broader categories. Further, we also highlight some limitations of the reviewed articles throughout our analysis.

Results

Numbers of Studies and their Nature

The articles were published in a diverse range of journals (see Table 1). We identified five domains representing the knowledge areas of the articles: innovation management (33.3%), service research (5.6%), operations management (11.1%), marketing management (33.3%), and others (16.7%). This indicates that inquiries on the success factors of service innovation is a topic area of interest in service and innovation research as well as several other disciplines.

Table 1: Domains and Journals

Domain	Journal	Number	Percentage
Innovation management	Innovation: Management, Policy & Practice	1	33.3%
	Intl Journal of Innovation Management	1	
	Journal of Product Innovation Management	4	
Service research	Journal of Service Research	1	5.6%
Operations management	Intl* Journal of Operations & Production Management	1	11.1%
	Production & Operations Management	1	
Marketing management	Journal of Marketing Management	1	33.3%
	Journal of Business Market Management	1	
	Industrial Marketing Management	3	
	The Marketing Review	1	
Others	Economics of Innovation & New Technology	1	16.7%
	Technovation	1	
	Regional Studies	1	
	* *Intl = International* **Total**	18	100%

A Diversity of Theories

Out of the 18 reviewed works, only seven studies identify the specific theories forming the foundation for their theoretical development and arguments, and several studies fail to provide a clear theoretical background. A broad variety of theories were utilised in these investigations, including strategy-environment co-alignment framework (Atuahene-Gima, 1996), operational decision-making (van Riel, Lemmink and Ouwersloot, 2004), resource-based view (Menor and Roth, 2008), resource dependence theory (Carbonell, Rodriguez-Escudero and Pujari, 2009), and structure-conduct-performance paradigm (Jaw, Lo and Lin, 2010). Such diverse theoretical backgrounds in service studies are, indeed, consistent with Clark, Rajaratnam and Smith's (1996) claim that no single theory can explain the complex and diverse nature of the international marketing of services. Notably, no single study has adopted an integrated theoretical approach by incorporating two or more theories.

Research Designs and Research Contexts

All except one study are empirical inquiries on a service innovation related topic. The methodology adopted by the empirical studies can be classified into quantitative, qualitative, or mixed methods (see Table 2). The majority of the studies rely on surveys (mostly mail

surveys) while four studies use a combination of in-depth interviews (or case studies) and surveys. Qualitative methods using in-depth interviews are the least common research design among the studies. The average sample size of the quantitative studies and mixed method studies is 267 and the average number of interviews for qualitative studies and mixed method studies is 24. Table 2 also shows that about half of the studies use firm as the unit of analysis, and the remaining studies use either innovation project or NSD program as the unit of analysis. For instance, Freel and Harrison (2006) compare the success factors between product and process innovation at the firm-level level while Koch and Strotmann (2008) analyse the determinants of incremental versus radical innovation at the firm-level. De Brentani and Cooper (1992) and de Brentani and Ragot (1996), on the other hand, study success factors by comparing a successful and unsuccessful innovation project nominated by service managers. Very few studies investigate the behaviour of knowledge intensive business services (KIBS) firms (Koch and Strotmann, 2008). Further research in this particular sector is, therefore, timely and necessary.

Table 2: Research Designs

Method	%	Unit of analysis	%
Survey	70.6	Firm	58.8
Mixed methods	17.6	Innovation project	35.3
Interview	11.8	NSD program	5.9
Total	100	**Total**	100

Table 3: Research Contexts

Country	%	Industry	%
Europe	35.3	Cross-sectional	41.2
North America	29.4	Financial services	23.5
Asia Pacific	17.6	Professional services	17.6
Cross-national	5.9	KIBS	11.8
Unspecified	11.8	Technical services	5.9
Total	100	**Total**	100

Table 3 shows the countries and industries in which the studies were conducted. Over 60% of the studies were conducted in Europe and North America, while a limited number of studies were conducted in Asia pacific and across nations. In addition, most studies obtained data from a single service sector, with the most popular sectors being professional services and financial services (approximately 40% of the reviewed literature).

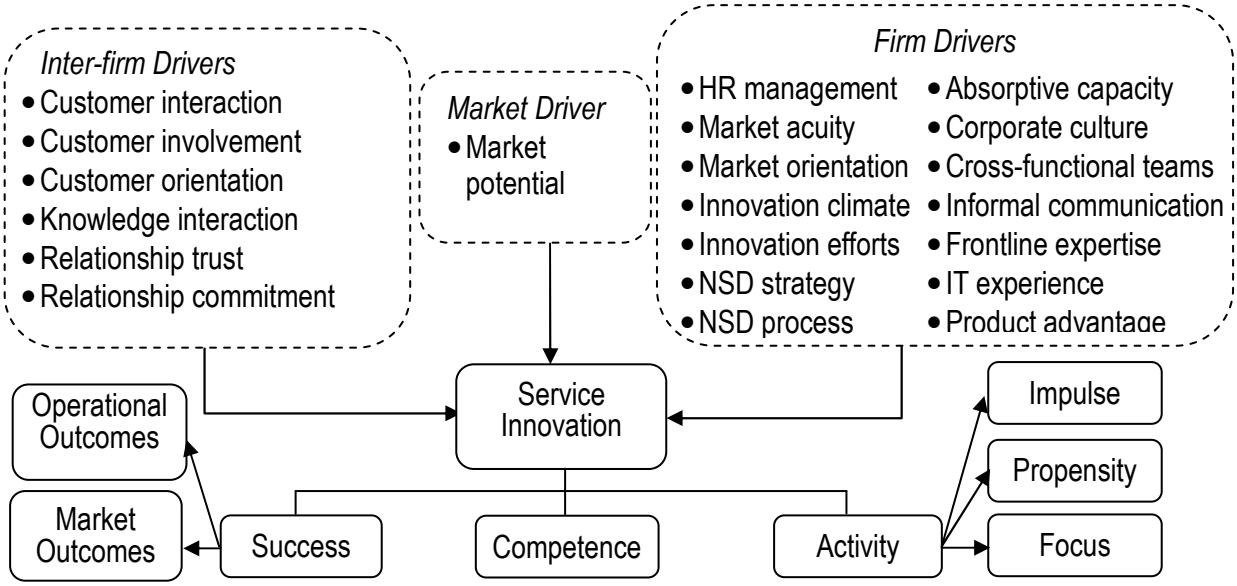
Drivers of Service Innovation

We summarised the research on antecedents of service innovation in Figure 1 (only drivers that are found to be significant are shown). Service scholars have investigated success drivers related to three aspects of service innovation: innovation success/performance (Atuahene-Gima, 1996), innovation competence/capability (Akman and Yilmaz, 2008), and innovation activities (Neumann and Holzmüller, 2007) (e.g. innovation impulse, innovation focus). This confirms that service innovation is a complex and multidimensional construct. However, only Menor and Roth (2008) and Eisengerich, Rubera, and Seifert (2009) show that innovation activity has a positive effect on firm performance; hence, more research is needed to examine other effects of service innovation (e.g. service quality, firm competitiveness).

Further, innovation success/performance dominates the research topics of the reviewed studies (approximately 45%), yet there is no universal measure of innovation success or performance. For example, while Jaw *et al.* (2010) measure success in terms of how well the NSD project achieves pre-set objectives as well as overall profitability, Carbonell *et al.* (2009) investigate operational outcomes (innovation speed and technical quality) and market outcomes (competitive superiority and sales performance). Importantly, how innovation success is measured directly impacts on what are considered to be key success drivers.

Therefore, developing a universal measure of innovation success is an important step towards reconciling the scattered literature. The following discusses the success drivers of service innovation, which are classified into firm drivers, market driver, and inter-firm drivers.

Figure 1. A Conceptual Framework of Success Drivers in Business Service Innovation



Firm drivers

Firm drivers refer to success factors controlled by service firms. Some studies focus on one specific driver such as absorptive capacity (Koch and Strotmann, 2008) and intelligence gathering (van Riel *et al.*, 2004) whereas some undertake a broader scope. For example, Atuahene-Gima (1996) investigates three groups of drivers and concludes that human resource strategy, management support and teamwork, and proficiency of market launch activity are among the most important success factors of service innovation. Notably, not all firm drivers reported by the studies are incorporated into the conceptual framework because similar drivers are grouped into a single driver. In this case, management support and teamwork (Atuahene-Gima, 1996), frontline employees (Neumann and Holzmüller, 2007), and creativity and ideas management (Oke, 2007) are classified under human resources (HR) management. Given that firm drivers have been studied relatively extensively in the literature, future research on firm drivers might look at the interactions of these variables in facilitating innovation activities of service providers.

Market drivers

Only one significant market driver, namely market potential, is identified from the literature (de Brentani, 2001; de Brentani and Ragot, 1996). Atuahene-Gima (1996) investigates the intensity of market competition as a potential market driver, but its impact on innovation performance is insignificant. This demonstrates that service firms are adapted to strong competition due to the intangible nature of services (Atuahene-Gima, 1996). Further, there was very scant cross-national research (if any) on service innovation in foreign markets. Therefore, much future research on firms undertaking innovation projects in the overseas market is needed and potential market drivers such as cultural distance and foreign market characteristics should be considered.

Inter-firm drivers

Consistent with Vargo and Lusch's (2004) view that customers are co-creators of value, a few studies have examined the role of customer-oriented factors and relationship characteristics as significant determinants of innovation success. Some authors take into account the role of the customers, such as customer interaction (Alam, 2006) and customer involvement (Carbonell *et al.*, 2009). Interestingly, Freel and Harrison (2006) find that external collaboration is not a necessary condition for innovation while Carbonell *et al.* (2009) show that customer involvement has no direct effect on market outcomes of NSD performance. However, only two studies, namely Neumann and Holzmüller (2007) and Eisingerich, Rubera, and Seifert (2009), specifically investigate the relationship characteristics of trust, inter-organisational commitment and diversity, respectively, as drivers of innovation outcomes. Only relationship trust (Neumann and Holzmüller, 2007) and commitment (Eisengerich *et al.*, 2009) are deemed significant predictors. This leaves a large gap for future studies focusing on inter-firm relationship management, noting its well-established role the accomplishment of competitive advantages and superior firm performance in the relationship marketing literature.

Future Research Directions and Conclusion

In this study, we have conducted a review of the scant literature on success drivers of business service innovation. Our extensive search of the published works in the past two decades yieled one conceptual paper and 17 empirical inquiries. We analysed these 18 studies taking into account their reserch designs, contexts, and research themes. In doing so, we contribute to advancing the knowledge in business service innovation by introducing a preliminary framework that depicts various firm chacteristics, a market factor, and several relationship management issues as sigificant predictors of innovation outcomes.

Despite the recent increase in research attention, more theoretical developments are needed in business service innovation drivers. In the first instance, the proposed conceptual framework can be empirically tested across different service industry settings. More specifically, future inquiries should incorporate more variables including service issues (such as service contracts and intellectual property rights), and market drivers (such as government support and technological turbulence). There should also be some concerted efforts to develop a universal measure of innovation success. Importantly, the role of inter-firm relationship characteristics in driving innovation activities of service firms requires significant attention from service and innovation scholars. The relationship marketing literature provides a good starting point for future research on inter-firm drivers of service innovation. Finally, future study should investigate the effect of innovation success on relationship quality, service quality, firm competiveness and even overall firm performance, extending early works by Menor and Roth (2008) and Eisingerich *et al.* (2009).

References

Akman, G., Yilmaz, C., 2008. Innovative capability, innovation strategy and market orientation: An empirical analysis in Turkish software industry. International Journal of Innovation Management 12 (1), 69-111.

Alam, I., 2006. Removing the fuzziness from the fuzzy front-end of service innovations through customer interactions. Industrial Marketing Management 35 (4), 468-480.

Atuahene-Gima, K., 1996. Differential potency of factors affecting innovation performance in maufacturing and services firms in Australia. Journal of Product Innovation Management 13 (1), 35-52.

Carbonell, P., Rodriguez-Escudero, A.I., Pujari, D., 2009. Customer involvement in new service development: An examination of antecedents and outcomes. Journal of Product Innovation Management 26 (5), 536-550.

Clark, T., Rajaratnam, D., Smith, T., 1996. Toward a theory of international services: Marketing intangibles in a world of nations. Journal of International Marketing 4 (2), 9-28.

de Brentani, U., 2001. Innovative versus incremental new business services: Different keys for achieving success. Journal of Product Innovation Management 18 (3), 169-187.

de Brentani, U., Cooper, R.G., 1992. Developing successful new financial services for businesses. Industrial Marketing Management 21 (3), 231-241.

de Brentani, U., Ragot, E., 1996. Developing new business-to-business professional services: What factors impact performance? Industrial Marketing Management 25 (6), 517-530.

de Jong, J.P.J., Vermeulen, P.A.M., 2003. Organizing successful new service development: A literature review. Management Decision 41 (9), 844-858.

Droege, H., Hildebrand, D., Forcada, M.A.H., 2009. Innovation in services: Present findings, and future pathways. Journal of Service Management 20 (2), 131-155.

Eisingerich, A.B., Rubera, G., Seifert, M., 2009. Managing service innovation and interorganizational relationships for firm performance: To commit or diversify? Journal of Service Research 11 (4), 344-356.

Freel, M.S., Harrison, R.T., 2006. Innovation and cooperation in the small firm sector: Evidence from 'Northern Britain'. Regional Studies 40 (4), 289-305.

Froehle, C.M., Roth, A.V., 2007. A resource-process framework of new service development. Production & Operations Management 16 (2), 169-188.

Goldstein, S.M., Johnston, R., Duffy, J.A., Rao, J., 2002. The service concept: The missing link in service design research? Journal of Product Innovation Management 13 (3), 121-134.

Javalgi, R.G., Martin, C.L., 2007. Internationalization of services: Identifying the building-blocks for future research. Journal of Services Marketing 21 (6), 391-397.

Javalgi, R.G., White, D.S., 2002. Strategic challenges for the marketing of services

internationally. International Marketing Review 19 (6), 563-581.

Jaw, C., Lo, J.-Y., Lin, Y.-H., 2010. The determinants of new service development: Service characteristics, market orientation, and actualizing innovation effort. Technovation 30 (4), 265-277.

Jimenez-Zarco, A.I., Martinez-Ruiz, M.P., Gonzalez-Benito, O., 2006. Success factors in new services performance: A research agenda. The Marketing Review 6 (3), 265-284.

Johne, A., Storey, C., 1998. New service development: A review of the literature and annotated bibliography. European Journal of Marketing 32 (3/4), 184-251.

Koch, A., Strotmann, H., 2008. Absorptive capacity and innovation in the knowledge intensive business service sector. Economics of Innovation & New Technology 17 (6), 511-531.

Menor, L.J., Roth, A.V., 2007. New service development competence in retail banking: Construct development and measurement validation. Journal of Operations Management 25 (4), 825-846.

Menor, L.J., Roth, A.V., 2008. New service development competence and performance: An empirical investigation in retail banking. Production & Operations Management 17 (3), 267-284.

Neumann, D., Holzmüller, H., 2007. Service delivery encounters in business-to-business contexts as a source of innovation: A conceptual and explorative study. Journal of Business Market Management 1 (2), 105-134.

Oke, A., 2007. Innovation types and innovation management practices in service companies. International Journal of Operations & Production Management 27 (6), 564-587.

Ostrom, A.L., Bitner, M.J., Brown, S.W., Burkhard, K.A., Goul, M., Smith-Daniels, V., Demirkan, H., Rabinovich, E., 2010. Moving forward and making a difference: Research priorities for the science of service. Journal of Service Research 13 (1), 4-36.

Papastathopoulou, P., & Hultink, E. J. 2010. New service development: An analysis of 27 years of research. In Beckmann, S.C, Ringberg, T., Ritter, T. (Eds.). Proceedings of the 39th Euroepan Marketing Academy Conference. Copenhagen: Copenhagen Business School.

van Riel, A.C.R., Lemmink, J., Ouwersloot, H., 2004. High-technology service innovation success: A decision-making perspective. Journal of Product Innovation Management 21 (5), 348-359.

Vargo, S.L., Lusch, R.F., 2004. Evolving to a new dominant logic for marketing. Journal of Marketing 68 (1), 1-17.

Wolfl, A. 2005. The Service Economy in OECD Countries. Available from http://www.oecd-ilibrary.org/oecd/content/workingpaper/212257000720. Accessed on March 15, 2010.