

SERVICE INNOVATION AND FIRM PERFORMANCE

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Abstract

Although it is known that service quality has a significant impact on service innovation and firm performance. There is a lack of empirical research which examines a triangulation of service quality, service innovation and firm performance regarding logistic firms in Malaysia, with prior research nevertheless mainly analysing these paradigms either in a two-way relationship or discretely. The aim of this paper is to investigate the relationship between service quality, service innovation and firm performance in the Malaysia logistic industry. The direct relationship between service quality and firm performance outperforms the indirect relationship of service innovation and firm performance. It has contributed in the sense that past researchers have not considered the tri-dimensional relationship between service quality, service innovation and firm performance. An empirical survey was performed and there were 190 participants from logistic industry in Malaysia. Regression analysis was employed in this study to investigate the relationship between service innovation and firm performance. PLS-SEM was performed to analyse the data, and the results confirmed that there is a relationship between service innovation and firm performance. Using structural equations modelling, we found that service innovation is significantly related to firm performance. **Practical implications** – The understanding of innovation in services allows managers to better design their service offerings and formulates corresponding operational strategies around customer needs. **Originality/value** – This paper examines the service innovation of the logistic companies and is an excellent tool for managers deciding on which innovations to implement.

Keywords service innovation; firm performance; logistic; Malaysia

Paper type Research paper

1.0 Introduction

Services are commonly defined using the following five key characteristics: Intangibility, perishability, inseparability, simultaneity, and variability (Alam & Perry, 2002; Das & Canel, 2006; Katzan, 2008). As such, services in contrast to goods cannot be touched, they cannot be stored, their production and consumption cannot be separated and happen at the same point of time, and they are always different from one another due to different service providers (employees) and customer demand and input. However, these characteristics are not able to grasp the full complexity of services. Sometimes, goods and services are not mutually exclusive but can be arranged on a continuum (Vargo & Lusch, 2008). However, scholars agree on the notion of services as processes (Bitner, Ostrom, & Morgan, 2008; Katzan, 2008). Although contemporary economies are undeniably service economies, since services are now our main source of wealth and jobs, the relationship between services, on the one hand, and innovation and performance, on the other, continues to be a matter of considerable debate. Thus in the still dominant industrialist or technologist approach to this relationship, innovation efforts and firm performance in services are underestimated.

Over the last few decades, a large body of literature has attempted to account both theoretically and empirically for the role of innovation in economic growth and competitive process from different perspectives and approaches. However, vast majority of present innovation studies explicitly or implicitly focus on technological innovation with manufacturing (Lin, 2013). An innovation-based viewpoint facilitates a considerable of competition in terms of innovation (Lichtenthaler, 2016). Innovation has been viewed broadly as technological advancement, new product or process development in relation to manufacturing industry (Tudor, Zaharie, & Osoian, 2014). Along with the great strategic importance assumed by the theme of innovation in services, there has been an increased interest in research that seeks to understand the relationship between investments in innovation and performance of these innovations. In recent years, there is a flurry of interest in innovation in the service sector among researchers and policy-makers (Agarwal, Selen, Roos, & Green, 2015; Dorson, 2015; Hertog, 2010). Understanding the relation between innovation and performance is of crucial importance for ongoing economic growth, but still hardly understood (Tugores & García, 2015).

Development of hypotheses

The level of business interest in service innovation is logical to understand; there are strong relations between service innovation and firm performance documented in the literature. The result identified that the positive effects of innovation types on firm performance (Hassan, Shaukat, Nawaz, & Naz, 2013). The paper then examines the impact of service innovation on performance, in terms of innovative sales per employee and total sales per employee and the study reveals that service innovation is associated with higher total sales per employee (Tether, 2013).

Grawe, Chen and Daugherty (2009) emphasized that firm's market performance can be enhanced by service innovation capability or the relationship between service innovation and market performance is supported. Similarly, McDermott and Prajogo (2012) found the relationship between the exploration and exploitation innovation, and business performance in small and medium enterprise (SME) service firms but moderated by size within the authors' sample of small firms. Love, Roper and Dundas (2008) examined the impact of innovation on the performance of service firms and discovered that the relationships between innovation, exporting and productivity are proved complex. So they suggest that regional innovation policy should be oriented towards helping firms to innovation only where it helps firms to enter export markets or to expand their existing export market presence. Negative effect of innovation in the service sector on firm performance (Masso & Vaher, 2011). Eggert, Thiesbrummel and Deutscher (2014) announced that product innovations and revenue and profitability growth are inter-related whereas the profitability of an average industrial company remains unaffected by its service innovation activities, pointing to the challenge of managing the costs of service innovation in goods-centered environments and that the additional research is needed to further clarify the findings.

Hence, concluded that being innovative can have positive effects on service firms' performance. Once again, the relationship between innovativeness and future performance of service firms has been examined by Dorson (2015). Their study found that it is rather high

levels of service innovations that maximize performance in service firms and not just the implementation of such innovations and that the implementation must be aligned to the prevailing environmental conditions.

The studies have empirically examined the effects of service innovation and firm performance and the findings has been inconsistently identified service innovation has an effect on firm performance. The additional research is needed to further clarify the findings. Through this understanding, practitioners will be able to implement a specific set of activities as defined in the service innovation construct that can lead to a statistically and practically significant improvement in their ability to reach superior firm performance. These firm performance measures present the greatest potential for building a powerful research foundation on service innovation and explain the most important aspects of firm consequences. There is a relationship between service innovation and firm performance. We therefore expected to replicate previous findings linking service innovation and firm performance. In general, service innovation and firm performance are related.

Service innovation has a positive impact on firm performance.

Earlier empirical studies of technological innovation have examined the relationship between innovation and firm performance in manufacturing sectors, finding the positive effect of innovation on economic performance, more specifically on productivity (Atalay, Anafarta, & Sarvan, 2013; Ibrahim, 2019; Prajogo, Laosirihongthong, Sohal, & Boon-itt, 2007). The underlying foundation is that inspiring firms to innovate will lead to better economic performance (Melkas & Harmaakorpi, 2012), higher growth, more jobs and higher wages (Wade & Hulland, 2004). What needs to be empirically tested in this article is whether such a mechanism also takes place in the service sector. Current literature focusing on the impact of innovation on firm performance in service sectors can be divided into two groups according to research fields, that is, innovation research and marketing research. Innovation researches were conducted at both the macro-level, sector-level and firm-level, in which the impact of service innovation on productivity (efficiency), output (value added), as well as employment are main topics (Economic Planning Unit, 2015; Kingdom, Cherotich, Sang, & Shisia, 2015; Papulova & Papulova, 2006). As far as we know, some works have been done relating service innovation to productivity, all very current. (Lin, 2013) examined both the manufacturing and service sectors with the collective sample, concluding with a positive relation between innovation and the level of productivity, but finding a negative impact of innovation on productivity growth. Uppenberg and Strauss (2010) found that both employment and output in services is productivity growth is generally lower in the services sector than in manufacturing. Karayun, Aydin and Gulmez (2012) found that logistics and supply chain management can provide several ways to increase efficiency and productivity and therefore contribute significantly to reduced unit costs. M. Eisenhardt & A.Martin (2013) concluded that the relationship between service firm's innovation activities is necessary but not sufficient to generate productivity improvements as conditions for competitive advantage. As for the output and employment impact of service innovation, Gallouj and Djellal (2014) found that a positive correlation between employment and performance in terms of innovation. Al-Matari, Al-Swidi and Fadzil

(2014) explored that accounting-based measurement is commonly considered as an effective indicator of the company's profitability and the business when compared to standard rate of return equal to the risk adjusted weighted average cost of capital. Competitive advantage can be expected to lead to superior marketplace performance (e.g., market share, customer satisfaction) and financial performance (e.g., return on investment, shareholder wealth creation (Bharadwaj, Varadarajan, & Fahy, 1993). Ahmad and Zabri (2016) reported that using non-financial measures in evaluating performance had positively affected market performance. Additionally, while this does not necessarily mean that service firms lag behind manufacturing firms in innovation, it could be estimated that the impact of innovation on performance in services would be different than that in manufacturing sectors. Obviously, managers who consider alternative uses of their financial and managerial resources need to know the performance effects of using their resources on service innovation. Thus, from a managerial point of view, the lack of empirical studies on the relationship between service innovation and performance is worrying. Empirical test should be conducted to provide reliable basis for executive's managerial decisions about innovation-related activities and performance implication in service firm.

Research methodology

This paper employs e-research and a survey of literature as research methodology. The present research analyses service innovation and firm performance relationships with the effect of service quality as mediator from the logistic managers' perspective. This paper explores the links between innovation and performance in services, using firm-level survey data based on questionnaires in the Malaysia logistic sector. These data are used to discover whether innovation has a real impact on the firm performance of service firms and find the path with which innovation activities affect firm performance. Considering our research goal and sample accessibility, this article selects the various logistic operators operating in Malaysia as a research unit to gather survey data. The reason we choose logistic companies is discussed below. The first is that, logistic companies represents the most dynamical and innovative part, which plays a key role to link other aspects of the logistic sector together. The second reason is that it is expedient to access survey respondents to obtain data. A survey based, empirical, cross sectional study is used to collect data from logistic firms in the Malaysia with one hundred or more managers. Descriptive statistics, correlation- and structural equations modeling are used to test the results.

Data collection tool

The purpose of the field study is to explore the relationships between service innovation and firm performance in the Malaysian Logistic industry. For the purpose of testing the above stated hypotheses a questionnaire was designed, including an innovation scale adapted from Janssen (2015) comprising 18 items and a firm performance scale adapted from Venkatraman (1989) comprising 9 items. This questionnaire was tested in a pilot study on 10 logistic firms operating in Malaysia and it was revised according to the feedback obtained from the managers of these 10 firms and the experts of the Malaysia Logistic Industry.3.2. Sample of the study. The revised

version of the questionnaire was used in the field study which was conducted through questionnaire survey with the top level managers of 30 logistic firms operating in Malaysia. This sample was derived from a population of 1000 logistic firms located in Malaysia. A total of 113 questionnaires were obtained and found to be valid for the analysis. This sample in total represents 47% of the logistic firms located in Malaysia.

3.3. Analysis and results Data obtained through questionnaires was analysed through the SPSS statistical package program and the proposed hypotheses was tested through regression analysis. The factor analysis conducted on the 21 item innovation scale (Lin et al., 2010) resulted in weak loading or loading under two different factors for 5 items in the scale. These items were deducted to leave 16 items with factor loadings seen in Table 1. With these 16 items measuring innovation, the cumulative variance explained is 68.40%, which is above the acceptable limit of 60%.

The KMO measure of sampling adequacy is 0.80 which is an acceptable value and close to 1. The value of Bartlett test of sphericity which indicates sufficient correlation between the variables is 824.80 and it is significant ($p=0.000$). The factor loadings for the items range from 0.59 to 0.91. Consequently, all the mentioned results of factor analysis are in acceptable range (Lewis-Beck, 1994)

Result

Supporting hypothesis, the analysis shows that there is a perfectly correlated between service innovation and firm performance. Our results showed a strong and positive relationship between service innovation and firm performance. We provide empirical evidence that service innovation plays a significant role in enhancing the firm performance of organizations in the logistic sector. The hypothesis suggested is supported. The results are shown in Table 2.

Discussion

The key objective of this study is to examine the role of firms' service innovation in driving performance. The notion that relationships matter already has gained wide and strong recognition among managers and marketing scholars. However, the extent to which relationship commitment and relationship diversity affect innovation focus and firm performance has remained less than clear. In this article, we argue and show that models of firm performance and innovation relationship variables to examine the context of innovation efforts by firms. Specifically, service firms must make the development of new service processes or products a priority in order to trade upon the commitment of their drive performance. Our results prompt discussion of a number of options for further research. We find it worthwhile to elaborate more on how service innovation constructs relate to each other. Most of the discussions tend to look at the direction in which higher order capabilities influence the reconfiguration of more routine-like capabilities. A better understanding of the two impact paths of service innovation on firm performance would help managers to determine the operation priorities (e.g. resource inputs allocation) in two different operational processes when conducting innovation- based competitive strategy in firms.

Conclusion

Service innovation significantly positively associate with firm performance. In addition to this, current results underscore the critical role of a firm's focus on service innovation in driving performance. Hence, in order to achieve higher firm performance, organizations are well advised to put a service innovation in place. We conclude with a discussion of opportunities for future research including implications for firms' performance from the increasing importance of the service innovation. Fortunately, answers to this objective have been found; while the proposed hypotheses were investigated and found to be supported. It is therefore critical to state that service innovation could be annexed towards successful firm performance of logistic industry in Malaysia, thus, enhancing service innovation that make Malaysia logistic industry firm performance. Similarly, when managers empowered service innovation, there is tendency for better performance of the industry and as well improvement in the nations' GDP. It was concluded that empowered service innovation, hence, managers of logistic industry should put in place management practice that will stimulate impact, confidence, competence, and self-determination. This will ensure that service innovation that could enhance firm performance.

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