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The effects of relationship quality and knowledge sharing on service innovation performance: organisational learning as a mediator

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Abstract: Drawing on RBV and service dominant logic and using data collected from 243 companies, this paper aims at examining the interplays between relationship quality, knowledge sharing, organisational learning, and service innovation performance. This empirical research found that knowledge sharing and relationship quality were significantly related to organisational learning, and that in turn significantly affected service innovation performance. Moreover, better relationship quality would yield improved knowledge sharing. Furthermore, we propose that organisational learning is a significant mediator through which knowledge sharing influences firm performance, and that relationship quality is also a critical factor that facilitates service innovation.

Keywords: relationship quality; knowledge sharing; organisational learning; service innovation performance.

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1 Introduction

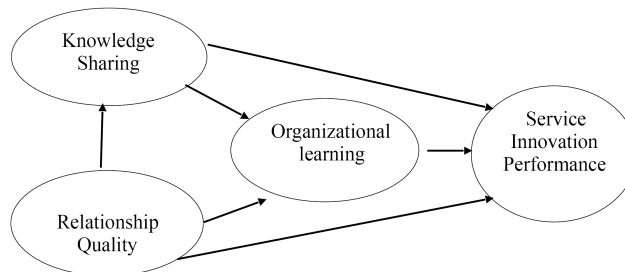
Accelerating transformation towards a knowledge-based economy has been a global phenomena that is facilitated by technological advancements and globalisation. Under such circumstance, innovation and its enablers such as working relationships, knowledge sharing, and organisational learning have become extraordinarily crucial for the survival and prosperity of today's organisations in an era characterised by unprecedentedly turbulent business environments. Innovation involves provision of novel services, products, work processes, or management procedures to attain competitive advantage (Drucker, 2014). An enterprise innovates through utilising technology resources, knowledge, and relationships. Relationship quality is an important issue in B2B relationships, and it is playing increasingly significant roles in modern organisations, therefore, researchers and practitioners have realised the need to understand and monitor this crucial concept (Jiang et al., 2016). Firms with more resources and good relationships innovate more successfully since innovation practices are facilitated by inter-organisational collaboration behaviours. Service innovation is defined differently across different research viewpoints (Witell et al., 2016). In this study, service innovation is perceived as the combination and exchange of resources (importantly, information, skills, and knowledge) in novel ways that offer value for the exchanging parties (Barrett et al., 2015). For this resource exchanging to be effective there must be trust, which is a significant dimension of relationship quality (Crosby et al., 1990). Relationship quality comprises trust, commitment, service quality, and satisfaction. S-D logic stresses that all social and economic actors integrate various kinds of resources to create value (Lusch and Nambisan, 2015). Further, all firms are involved in playing the dual roles of service offerer (providing resources or service to other actors) and service beneficiary (they themselves are recipients of other firms that offer them service or resources). Interactions among firms are crucial to understand because it is by means of interaction that information is shared and knowledge is generated and actors have agency through what they know and who they know (Lusch and Nambisan, 2015). Knowledge development processes for value creation can be improved through intimate interactions and coproduction of knowledge with business partners and customers (Foss et al., 2010). Therefore, firms urgently need to build sound relationships with all stakeholders and to develop effective methods of learning, disseminating, and exploiting knowledge that facilitates innovation.

A rich literature of empirical studies has separately examined the impacts of relationship quality, knowledge sharing, and organisational learning on firm performance (Crosby et al., 1990; Foss et al., 2010; Wang et al., 2016). Previous research works have investigated the above mentioned concepts in different combinations and various research contexts. For instance, some studies demonstrated how relationship quality would positively impact customer loyalty in the context of B2B. Other ones argued that B2B

relationship quality is critical for market success. Wu (2016) found that knowledge sharing significantly and positively influenced service innovation. However, the joint impacts of these variables on service innovation performance in emerging economies have received far less consideration. The current study attempts to bridge this research gap and enrich extant literature by simultaneously investigating the interplays among knowledge sharing, relationship quality, and organisational learning, in addition to their impacts on service innovation performance. Furthermore, despite the fact that a number of papers have highlighted aspects of organisational learning that are significant to innovating services there is a need for further studies to take knowledge sharing and knowledge creation perspectives into account (Tsou, 2012). This dearth of research from a knowledge sharing viewpoint is the motivation for the current study.

Our findings will hopefully enrich current understanding of the mechanisms by which relationship quality and knowledge sharing influence service innovation performance through organisational learning, as well as contributing to the research body of service science and resource-based view of the firm. Moreover, these results will also provide some managerial guidelines for practitioners to assist them achieving higher levels of SIP. The remainder of this study is structured as follows: firstly, we overview current literature and develop hypotheses for a model that connects relationship quality, knowledge sharing, organisational learning, and service innovation performance, as shown in Figure 1; secondly, we give a description of the research design and methodology; thirdly, we conduct data analysis and illustrate study results; fourthly, we elaborate on the implications and limitations of the study and conclude with some future research directions.

Figure 1 Research framework



2 Literature review and hypothesis

2.1 Service innovation

Academic research is increasingly concentrating on service innovation (Dotzel et al., 2013; Ordanini and Parasuraman, 2011) through an increased number of published studies from diverse research disciplines (Carlborg et al., 2014; Toivonen and Tuominen, 2009). Schumpeter (2017) suggests that innovation is a new combination of novel and extant knowledge that not only creates value for the firm that develops it, but also shakes the market in such a way that other firms imitate and follow, which facilitates the development of a new branch. Innovations are commonly divided into radical and incremental innovations, where radical usually refers to innovations that are new to the

world and incremental innovations are those that are new to the market (Sundbo, 1997). Service innovations optimise customer experience and client relationship management, enhance efficiency, and decrease operations expenses (Chen, 2017). Witell et al. (2016) emphasised the fact that service innovation is defined differently across various perspectives (assimilation, demarcation and synthesis). Ordanini and Parasuraman (2011) defined it as an offering not previously available to the organisation's customers – either an addition to the current service mix or a modification in the process of service delivery – that requires changes in the sets of competences utilised by service firms and/or customers. This study adopts the definition that describes service innovation as the extent to which new knowledge is integrated by the enterprise into service offerings, which yields value for the enterprise and its customers (Salunke et al., 2011).

2.2 Knowledge sharing and service innovation performance

The RBV emphasises the potential of resources and capabilities in creating economic value through enabling firms to create and implement strategies (Barney, 1991). S-D logic describes resources as anything an actor can draw on for support (Vargo and Lusch, 2004). These things could be tangible or intangible; moreover, they can be internal to actors and within their control or external to actors but available of being drawn on for support. Resources are a function of human appraisal and thus are often dynamic and potentially limitless (Lusch and Nambisan, 2015). The most critical resources are operant resources, which are often dynamic and difficult to transfer and therefore a source of sustained competitive advantage. The most basic operant resource is knowledge and the technology it fosters (Capon and Glazer, 1987). Knowledge is a significant asset for firms competitiveness and sustainability. Knowledge sharing is concerned with understanding knowledge and transferring it between different actors. It facilitates transforming individual knowledge into organizational knowledge, leading to enhanced technological capabilities and organizational effectiveness. Knowledge sharing positively impacts firms productivity, firms absorbing and innovating capabilities, and sustains competitiveness (Wang et al., 2014). Almost all industries benefit from knowledge sharing to improve overall industry competitiveness (Wu, 2016). For instance, knowledge integration and sharing between service suppliers and manufacturers attempting servitization can help enhancing the servitization process and the service offering as well (Ayala et al., 2017). Through teamworks, interacting participants share, modify, and transform new ideas into novel types of knowledge leading to an eternally renewed continuous cycle of organizational knowledge (Wu, 2016). Ordanini and Parasuraman (2011) elaborated on how knowledge interfaces impact innovation outcomes and firm performance. Tsai and Ghoshal (1998) found that social interactions and trust had significant impacts on the degree of resource exchanging between units, this in turn significantly impacted innovation. Therefore, this paper assumes that:

H1 Knowledge sharing positively impacts service innovation performance.

2.3 Relationship quality and knowledge sharing

From an S-DL perspective, all actors are connected with other actors and other resources, and these contacts provide the context for the actors to experience value (Chandler and Vargo, 2011; Vargo and Lusch, 2008). Significantly, actors are always breaking and

making new connections; contexts thus are always in flux and value experiencing is dynamic (Lusch and Nambisan, 2015). S-D logic offers a telescopic lens to perceive actors not in their dyadic roles as producers and consumers but in a more generic sense as actors in a system of other actors co-creating value through integrating resources and offering services (Vargo and Lusch, 2011). However, with S-D logic, all actors are resource integrators in a network of other actors, and thus all actors are potential innovators or co-creators of value. Tsai and Ghoshal (1998) documented the importance of social ties and the role they play as channels for information and resource flows, through which actors obtain access to other actors resources. Design and production go hand in hand, this demands intensive communications between manufacturers and other actors in the production network, this elevates the significance of coordination between manufacturing facilities throughout the supply chain (Qi et al., 2014), which requires excellent relationships between all involved stakeholders. The idea of relationship quality stems from theory and research in the area of relationship marketing (Crosby et al., 1990) in which the ultimate objective is to strengthen already strong connections and to transform maybe customers into loyal ones. Strong social ties enhance trust and perceived trustworthiness over time and help solidifying trusting relationships between the actors and mitigating the difficulties arise when sharing knowledge (Krogh, 2003; Tsai and Ghoshal, 1998). Once trust has been established, it would provide assurances to members that valuable knowledge will be protected, therefore, encouraging more knowledge sharing between different actors in the network. Therefore, we hypothesise that:

H2 Relationship quality positively impacts knowledge sharing.

The RBV argues that firms can attain superior performance by owning and deploying resources and capabilities (Barney, 1991). Service innovation is a collaborative process occurring in an actor-to-actor (A2A) network (Lusch and Nambisan, 2015). Social relationships are crucial sources of information and other valuable resources. Through these social connections and interactions, actors might gain access to important innovation resources as well as eliminating inter-units boundaries which will stimulate the formation of common interest (Tsai and Ghoshal, 1998). These frequent interactions and exchanges of information and resources will lead to better relationships, which in turn will have impacts on service innovation performance, therefore we hypothesise that:

H3 Relationship quality positively impacts service innovation performance.

2.4 Organisational learning, knowledge sharing, and relationship quality

Resource-based view theory suggested that organisational learning is a primary strategic element that has the potential to improve firm performance through providing superior customer value and enhanced competitive advantage (March, 1991; Santos-Vijande et al., 2012; Real et al., 2014). Organisational learning is crucially important to firms, specially in times of serious crisis, it can save firms through leveraging the quality and speed of response in such occurrences (Starbuck, 2017). For knowledge to be of any use, it must be shared with others (Lusch and Nambisan, 2015). S-D logic perceives all social and economic actors as resource combiners. Human actors combine resources for two fundamental reasons. First, any resource an actor obtains can never be used in isolation but must be integrated or bundled with other resources to be useful and valuable. Many

resources that are combined are market facing, but many are also non-market facing, for example, private resources (e.g., trust, knowledge) and public resources (e.g., societal institutions, public lands, and infrastructure). Second, all innovation is the outcome of integrating extant resources (Arthur, 2009). Recurrent and intimate social interactions allow people to better understand each other, to share significant information, and to build a shared perspective (Tsai and Ghoshal, 1998). This shared viewpoint will lead to better transfer of individual knowledge, which will in turn facilitate and enhance organisational learning. Accordingly we hypothesise:

H4 Knowledge sharing positively impacts organisational learning.

Researchers and practitioners acknowledge that organisational social and human systems need to be redesigned to suit uncertain environments and accompanied technological advancements (Tang et al., 2017). Good relationships provide firms with access to crucial knowledge and information from other actors in their networks and social interaction process helps actors realising and adopting their firms cultures, values, and practices. Simultaneously, these socialised actors will be able to produce new groups of values or new visions on the basis of their shared interests and reciprocal comprehensions (Tsai and Ghoshal, 1998). Therefore, we posit:

H5 Relationship quality positively impacts organisational learning.

An organisation's learning capabilities have significant impacts on generating innovation, exploiting environmental opportunities, and avoiding threats (Santos-Vijande et al., 2012). Because organisational learning can enable a firm to spot opportunities and stay updated with environmental changes. Organisational learning also assists firms attaining more knowledge and deeper understanding of their surroundings; hence, firms can offer satisfying products and services more efficiently, therefore, we posit:

H6 Organisational learning positively impacts service innovation performance.

RBV literature argued that resources and capabilities directly impact business performance. The fundamental assumption is that firms must be able to effectively capitalise on their resources and capabilities to further enhance their performance (Chen and Tsou, 2012). However, not all innovations may necessarily have a direct effect on performance (Orfila-Sintes and Mattsson, 2009). They may have an indirect or lagged effect that might be difficult to measure. Therefore, innovation practices may affect firm performance through mediators (Chen and Tsou, 2012).

Structural integrity refers to the nature of connections or relations that keep different actors together in a network. This is a crucial issue because even though being loosely coupled offers advantages, it can also lead to costly changes to business relations. From the S-D logic viewpoint, the social and economic actors of a service ecosystem are kept together by three types of resources: competences, relationships, and information (Lusch and Nambisan, 2015). Early studies regarded resources as those tangible things that people use for support, often natural resources that are fixed or limited in supply. However, S-D logic perceives resources as anything an actor can draw on for support (Vargo and Lusch, 2004). These things can be tangible or intangible. Some authors (e.g., Rauyruen and Miller, 2007; Woo and Ennew, 2004, 2005) perceive the quality of the business-to-business connection as an important factor in achieving success in the marketplace. Careful and thorough reviewing and analysing of the aforementioned related literature lead to the following two hypotheses:

- H7 Relationship quality will enhance organisational learning, which in turn will improve service innovation performance, that is to say organisational learning mediates the connection between relationship quality and service innovation performance.
- H8 Knowledge sharing positively influences organisational learning, which consequently enhances service innovation performance, that is to say organisational learning mediates the relationship between knowledge sharing and service innovation performance.

The proposed theoretical model of this study is shown in Figure 1.

3 Methodology

In the current research, we adopted tried and tested scales that have been widely used in the published literature to make sure the measurement tools are valid and reliable. Our sample consists of 260 enterprises from southern China; these companies represent different industries, different sizes, and different ages, which ensures the validity and reliability of our study.

Before giving out the questionnaires, a pilot test was done to assess validity; revisions were then done on the basis of the received feedback. Independent sample t-tests for differences between means of the major constructs were done to examine non-response bias. All t-tests showed there were no critical differences between the means at $p < 0.01$ level of significance. Therefore, our sample is relatively free from non-response bias. To eliminate cultural bias and assure validity, back-translation technique was performed on the Chinese version of the questionnaire.

All variables were measured using five-point Likert scales ranging from strongly disagree to strongly agree. To further ensure data reliability and validity, the procedure for data collection was carried out in three stages. First stage: the questionnaire was pre-tested by interviewing managers of ten representative enterprises in terms of industry and size, according to suggestions from these representatives, we re-edited the questionnaire. Second stage: edited version was distributed to 80 firms, 68 received, valid questionnaires were 62, valid return rate was 62%. The authors checked the overall consistency of the questionnaire and its single item reliability and conducted further editing. Third stage: formally launching questionnaire distribution. We handed out 485 copies mainly through three different ways: by mail, on site filling, and using e-mails. We got 292 copies of the 484 questionnaires given out; the total recovery rate was 60.2%. Eliminating 49 invalid copies, valid questionnaires were 243 and the final valid return rate was 50.2%. The distribution of the sampled organisations is adequately various and heterogeneous.

4 Data analysis and discussion

Statistics softwares SPSS17.0 and AMOS17.0 were employed to construct structural equation models (SEM) for the analysis of the interrelationships between the four constructs, relationship quality, knowledge sharing, organisational learning, and service

innovation performance. CFA analysis was done to investigate whether the items were valid.

Table 1 Descriptive statistics and correlation matrix

| <i>Variable</i> | <i>Mean</i> | <i>SD</i> | <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> | <i>5</i> | <i>6</i> | <i>7</i> |
|--------------------------------|-------------|-----------|----------|----------|----------|----------|----------|----------|----------|
| Satisfaction | 3.62 | .554 | - | | | | | | |
| Trust | 3.59 | .661 | .495** | - | | | | | |
| Commitment | 3.68 | .590 | .242** | .457** | - | | | | |
| Knowledge sharing | 3.55 | .508 | .332** | .366** | .271** | - | | | |
| Learning intention | 3.81 | .633 | .191** | .234** | .294** | .486** | - | | |
| Absorption capability | 3.64 | .565 | .289** | .390** | .394** | .477** | .567** | - | |
| Integrating capability | 4.92 | .427 | .275** | .292** | .386** | .368** | .486** | .533*** | - |
| Service innovation performance | 3.76 | .603 | .334* | .340** | .356* | .672** | .539** | .555** | 0.481 |

Notes: Mean: mean value; SD: standard deviation.

*** means $p < 0.001$, ** means $p < 0.01$, * means $p < 0.05$.

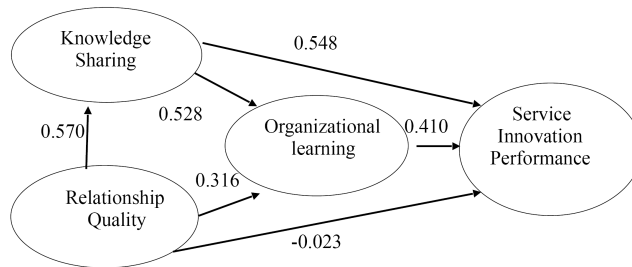
Table 2 Fitness index of the integrated model

| <i>Fitness index</i> | <i>χ^2/df</i> | <i>RMR</i> | <i>CFI</i> | <i>GFI</i> | <i>RMSEA</i> | <i>AIC</i> |
|----------------------|-------------------------------|------------|------------|------------|--------------|------------|
| Default model | 1.711 | 0.026 | 0.941 | 0.915 | 0.054 | 305.024 |
| Saturated model | — | 0.000 | 1.000 | 1.000 | — | 342.000 |
| Independent model | 11.118 | 0.174 | 0.000 | 0.325 | 0.204 | 1,737.083 |

Table 1 shows descriptive statistics and correlation matrix and Table 2 shows the fitness index of the integrated model, while Figure 2 shows path coefficients of the variables. It demonstrates that knowledge sharing significantly influence SIP, the total standardised effect value is 0.548 with $P < 0.001$, regression analysis shows that knowledge sharing and service innovation performance are positively correlated; relationship quality significantly influences knowledge sharing, with a standardised effect value of 0.570 and $P < 0.001$, which proves the hypothesis that relationship quality positively affects knowledge sharing; the standardised impact of relationship quality on service innovation performance is -0.023 with $P = 0.786 > 0.05$, which did not pass the significant test, thus the hypothesis that relationship quality positively affects service innovation performance was not supported; knowledge sharing positively affects organisational learning with a complete standardised effect value of 0.528 and $P < 0.001$, which supports the hypothesis that knowledge sharing positively impacts organisational learning; The regression model of relationship quality on organisational learning is significant on the whole, with a complete standardised effect value of 0.316 and $P < 0.01$, which supports the hypothesis that relationship quality positively affects organisational learning; organisational learning has a significant effect on the performance of service innovation with a standardised

value of 0.410 and $P < 0.001$, which proves the hypothesis that organisational learning positively influences service innovation performance to be correct.

Figure 2 Path coefficients of variables



To prove that organisational learning plays a mediating role between relationship quality, knowledge sharing, and service innovation performance, we must first verify that correlations between relationship quality, knowledge sharing and service innovation performance are significant, in addition to the relationship between organisational learning and service innovation performance. Data analysis shows that knowledge sharing, organisational learning and service innovation performance are significantly and positively correlated which confirms the hypotheses H1, H4 and H6, and paves the way for further study of organisational learning mediating role. However, the positive effect of relationship quality on service innovation performance is not supported by data. Therefore, there is no mediating effect between variables, that is to say hypothesis H7 is not supported by data. In order to verify the hypothesis that organisational learning mediates the relation between knowledge sharing and SIP, we added organisational learning as a mediator in the path from knowledge sharing to SIP, and the findings indicate that after the addition of the intermediary variable the correlation is still significant between knowledge sharing and SIP, but the path value decreased, therefore, hypothesis H8 is empirically supported, that is to say organisational learning plays a mediating role between knowledge sharing and SIP.

Path coefficients of relationship quality (RQ), knowledge sharing (KS), organisational learning (OL), and service innovation performance (SIP) are shown in Figure 2.

5 Conclusions

This paper contributes to literature in the following ways. Firstly, through empirically supporting the connections between relationship quality, knowledge sharing, organisational learning, and service innovation performance in one integrated framework, the study bridges research gap resulted from investigating these variables separately. Secondly, the current study enriches the understanding of the role and impacts of organisational learning, specifically as mediator between knowledge sharing and SIP.

There is remarkably little research that examines the connection between OL and strategy implementation in the extant literature (Digman et al., 2007). In this context, this paper makes a contribution to the existing literature by analysing organisational learning's role as an antecedent of organisations service innovation performance and whether this

impact is manifested as enhanced performance. Drawing on related literature, the authors constructed a comprehensive theoretical model to thoroughly examine the connections between the aforementioned variables. Our research also revealed how organisational learning mediates the relationship between knowledge sharing and service innovation performance.

This research shows that enterprises, as parts of a network of social relations, should maintain good quality relationships with suppliers, customers and partners, that is to say to maintain mutual trust, satisfaction, and commitment in order to achieve a better service innovation performance in a highly competitive environment. Organisation members who enjoy good relationships will be more willing to exchange important information with each other; this information encompasses operating technology and knowledge. This kind of environment is certainly conducive to innovation. The current paper also makes a contribution to the literature on how knowledge sharing influences service innovation performance. We argue that knowledge sharing is crucial for the sustainable growth of enterprises. In a knowledge sharing environment, coordination, communication and information sharing between concerned parties will enhance firms sensitivity to market, thereby enhancing cooperation and creating innovative services that will timely answer market demands.

5.1 Managerial implications

A better understanding and knowledge of how innovations are born is essential, both for firms aiming to innovate and academics working on theory building (Witell et al., 2016). This study suggests that enterprises exist in a network of social relations. Higher quality relationships between the firm, suppliers, and customers will yield more and better knowledge sharing and exchange of information, which in turn is more likely to create new knowledge that will boost innovation performance. Practitioners should know that external knowledge acquisition ability of the firm is particularly dependent on the relationship quality of the firm with its environment. Therefore, enterprises should take the initiative to establish broad relationships with the external environment, attain knowledge and information, and continuously enhance the competitiveness of the organisation. This is an essential means for firms to truly make use and transform their current relations resources and knowledge sharing practices into firm capabilities, which will eventually result in enhanced service innovation performance.

5.2 Research limitations and future directions

Our research has some limitations. First, respondents were mainly from southern China and our sampling did not include data collecting from other regions in the mainland, therefore results generalisation is a major concern. Moreover, our research is a cross-sectional study, considering that the impacts of RQ, KS, and OL on SIP may have time delays, therefore, our results need further validation in future longitudinal research, which will help to reveal the connections between variables more clearly. Second, considering the particularity of Chinese culture, future studies can try to examine distance and culture as control variables. Moreover, future in-depth research needs to be carried out to identify other variables which might have important influences on innovation performance of several typical Chinese enterprises, so as to improve findings generalisability.

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References

- Arthur, B.W. (2009) *The Nature of Technology: What It Is and How It Evolves*, Free Press, New York.
- Ayala, N.F., Paslauski, C.A., Ghezzi, A. and Frank, A.G. (2017) 'Knowledge sharing dynamics in service suppliers involvement for servitization of manufacturing companies', *International Journal of Production Economics*, Vol. 193, No. 4, pp.538–553.
- Barney, J.B. (1991) 'Firm resource and sustained competitive advantage', *Journal of Management*, Vol. 17, No. 1, pp.99–120.
- Barrett, M., Davidson, E., Prabhu, J. and Vargo, S.L. (2015) 'Service innovation in the digital age: key contributions and future directions', *Mis Quarterly*, Vol. 39, No. 1, pp.135–154.
- Capon, N. and Glazer, R. (1987) 'Marketing and technology: a strategic coalignment', *Journal of Marketing*, Vol. 51, No. 3, pp.1–14.
- Carlborg, P., Kindström, D. and Kowalkowski, C. (2014) 'The evolution of service innovation research: a critical review and synthesis', *The Service Industries Journal*, Vol. 34, No. 5, pp.373–398.
- Chandler, J.D. and Vargo, S.L. (2011) 'Contextualization and value-in-context: how context frames exchange', *Marketing Theory*, Vol. 11, No. 1, pp.35–49.
- Chen, C.L. (2017) 'Service providers sustainable service innovation: service-dominant logic', *Service Industries Journal*, Vol. 37, No. 4, pp.1–29.
- Chen, J.S. and Tsou, H.T. (2012) 'Performance effects of IT capability, service process innovation, and the mediating role of customer service', *Journal of Engineering and Technology Management*, Vol. 29, No. 1, pp.71–94.
- Crosby, L.A., Evans, K.R. and Cowles, D. (1990) 'Relationship quality in service selling: an interpersonal influence perspective', *Journal of Marketing*, Vol. 54, No. 3, pp.68–81.
- Digman, L.A., Sang, M.L. and Paisittanand, S. (2007) 'Managing knowledge capabilities for strategy implementation effectiveness', *International Journal of Knowledge Management*, Vol. 3, No. 1, pp.84–110.
- Dotzel, T., Shankar, V. and Berry, L.L. (2013) 'Service innovativeness and firm value', *Journal of Marketing Research*, Vol. 50, No. 2, pp.259–276.
- Drucker, P.F. (2014) *Innovation and Entrepreneurship: Practice and Principles*, Routledge, London.
- Foss, N.J., Husted, K. and Michailova, S. (2010) 'Governing knowledge sharing in organizations: levels of analysis, governance mechanisms, and research directions', *Journal of Management Studies*, Vol. 47, No. 3, pp.455–482.
- Jiang, Z., Shiu, E., Henneberg, S. and Naude, P. (2016) 'Relationship quality in business to business relationships – reviewing the current literatures and proposing a new measurement model', *Psychology & Marketing*, Vol. 33, No. 4, pp.297–313.
- Krogh, G.V. (2003) 'Understanding the problem of knowledge sharing', *International Journal of Information Technology & Management*, Vol. 2, No. 3, pp.173–183.
- Lusch, R. and Nambisan, S. (2015) 'Service innovation: a service-dominant logic perspective', *Mis Quarterly*, Vol. 39, No. 1, pp.155–175.
- March, J.G. (1991) 'Exploration and exploitation in organizational learning', *Organization Science*, Vol. 2, No. 1, pp.71–87.
- Ordanini, A. and Parasuraman, A. (2011) 'Service innovation viewed through a service-dominant logic lens: a conceptual framework and empirical analysis', *Journal of Service Research*, Vol. 14, No. 1, pp.3–23.

- Orfila-Sintes, F. and Mattsson, J. (2009) 'Innovation behavior in the hotel industry', *Omega*, Vol. 37, No. 2, pp.380–394.
- Qi, Y., Tang, M. and Zhang, M. (2014) 'Mass customization in flat organization: The mediating role of supply chain planning and corporation coordination', *Journal of Applied Research and Technology*, Vol. 12, No. 2, pp.171–181.
- Rauyruen, P. and Miller, K.E. (2007) 'Relationship quality as a predictor of b2b customer loyalty', *Journal of Business Research*, Vol. 60, No. 1, pp.21–31.
- Real, J.C., Roldán, J.L. and Leal, A. (2014) 'From entrepreneurial orientation and learning orientation to business performance: analysing the mediating role of organizational learning and the moderating effects of organizational size', *British Journal of Management*, Vol. 25, No. 2, pp.186–208.
- Salunke, S., Weerawardena, J. and Mccoll-Kennedy, J.R. (2011) 'Towards a model of dynamic capabilities in innovation-based competitive strategy: insights from project-oriented service firms', *Industrial Marketing Management*, Vol. 40, No. 8, pp.1251–1263.
- Santos-Vijande, M.L., López-Sánchez, J.Á. and Trespalacios, J.A. (2012) 'How organizational learning affects a firm s flexibility, competitive strategy, and performance', *Journal of Business Research*, Vol. 65, No. 8, pp.1079–1089.
- Schumpeter, J. (2017) *Theories of Economic Development*, Routledge, Abingdon, UK.
- Starbuck, W.H. (2017) 'Organizational learning and unlearning', *Learning Organization*, Vol. 24, No. 1, pp.30–38.
- Sundbo, J. (1997) 'Management of innovation in services', *The Service Industries Journal*, Vol. 17, No. 3, pp.432–455.
- Tang, M., Qi, Y. and Zhang, M. (2017) 'Impact of product modularity on mass customization capability: an exploratory study of contextual factors', *International Journal of Information Technology and Decision Making*, Vol. 16, No. 4, pp.939–959.
- Toivonen, M. and Tuominen, T. (2009) 'Emergence of innovations in services', *The Service Industries Journal*, Vol. 29, No. 7, pp.887–902.
- Tsai, W. and Ghoshal, S. (1998) 'Social capital and value creation: the role of intrafirm networks', *Academy of Management Journal*, Vol. 41, No. 4, pp.464–476.
- Tsou, H.T. (2012) 'Collaboration competency and partner match for e-service product innovation through knowledge integration mechanisms', *Journal of Service Management*, Vol. 23, No. 5, pp.640–663.
- Vargo, S.L. and Lusch, R.F. (2004) 'Evolving to a new dominant logic for marketing', *Journal of Marketing*, Vol. 68, No. 1, pp.1–17.
- Vargo, S.L. and Lusch, R.F. (2008) 'Service-dominant logic: continuing the evolution', *Journal of the Academy of Marketing Science*, Vol. 36, No. 1, pp.1–10.
- Vargo, S.L. and Lusch, R.F. (2011) 'It s all b2b...and beyond: toward a systems perspective of the market', *Industrial Marketing Management*, Vol. 40, No. 2, pp.181–187.
- Wang, Z., Sharma, P.N. and Cao, J. (2016) 'From knowledge sharing to firm performance: a predictive model comparison', *Journal of Business Research*, Vol. 69, No. 10, pp.4650–4658.
- Wang, Z., Wang, N. and Liang, H. (2014) 'Knowledge sharing, intellectual capital and firm performance', *Management Decision*, Vol. 52, No. 2, pp.230–258.
- Witell, L., Snyder, H., Gustafsson, A., Fombelle, P. and Kristensson, P. (2016) 'Defining service innovation: a review and synthesis', *Journal of Business Research*, Vol. 69, No. 8, pp.2863–2872.
- Woo, K. and Ennew, C.T. (2004) 'Business-to-business relationship quality: an imp interaction-based conceptualization and measurement', *European Journal of Marketing*, Vol. 38, No. 9, pp.1252–1271.
- Woo, K.S. and Ennew, C.T. (2005) 'Measuring business-to-business professional service quality and its consequences', *Journal of Business Research*, Vol. 58, No. 9, pp.1178–1185.
- Wu, C.F. (2016) 'The relationship between business ethics diffusion, knowledge sharing and service innovation', *Management Decision*, Vol. 54, No. 6, pp.1343–1358.