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A Resource-based View of Innovation: Microenterprises in Taiwan Digital Content Industry

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Abstract: The purpose of this study is to examine the relationships between collaboration, knowledge sharing, dynamic capability, IT capability, service innovation and performance of Taiwanese digital content microenterprise based on the resource-based view. Effective questionnaires were collected from 344 survey candidates from Taiwan digital content industry. The Partial Least Squares (PLS) approach was employed to test the research hypotheses. The result indicated that collaboration, dynamic capability and IT capability had a significant positive effect on service innovation. We provide a new framework to explain which factor will influence service innovation from external to internal. In addition, the findings indicated that service innovation had a positive effect on the performance in digital content microenterprise. Finally, theoretical and managerial implications of the research findings are discussed.

Key words: service innovation; digital content; resource-based
JEL code: O

1. Background

With the rapid development of globalization, price and cost-down has ended. Drucker (1995)'' Service economy will replace the manufacturing economy in the future''. According to a Business Week article titled "Service Innovation: The Next Big Thing". Company's goal increases their market share and proficient, they will change manufacturing-oriented business thinking. Therefore, company must explore unmet customer need and put forward a complete service experience that company role changes from selling product to selling service and total solution. In addition, Christensen (1997) proposed disruptive innovation concept, which product or service technology of innovation that low price attracts target customer to change their aspect in the current consumer market, such as fast cutting, netbook.

Resources can be classified in: physical capital resources, organizational capital resources and human capital resources. Physical capital resources, including plants, equipment, and finance. Wernerfelt (1984) proposed resource-based view concept. RBV is based on four basic tenets, which include the VRIO model: value (V),

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rareness (R), imitability (I), organizational support (OF) (Barney & Wright, 1997). RBV theory suggests that each organization has a distinctive set of resources and capabilities, and some capabilities will have superior impact on financial performance than the others (Song, Di Benedetto & Nason, 2007). The company holds a competitive advantage, when it displays a competitive superiority and have some distinctive and enviable competence or capability, which competitors cannot possess or imitate.

1.1 Research Motivation

According to report, microenterprises faster grow and play a decisive role in Taiwan industry. Microenterprise average revenue is higher than SMEs and Microenterprise is 40% account for each industry that industry type is always influence on microenterprise.

The Act for Development of Small and Medium Enterprises makes mention of "small-scaled enterprises," which is defined by the Ministry of Economic Affairs (MOEA) in its Standards for Identifying Small and Medium-sized Enterprises as a company with less than five regular employees.

To date, the bulk of research in this area has focused on SMEs about service innovation. Prior studies have investigated the drivers of service innovation from the IT capability, dynamic capability, interorganizational relationships, network and environment, market drivers, system and decision-making perspective. Thus, seldom literature explore about microenterprise innovation. Based on SMEs studies, we propose a framework from internal organizational influence factor to external influence factor that it completely explains microenterprise innovation.

1.2 Research Objective

The aim of this paper is to propose a conceptual framework for describing and analyzing service innovation, which will affect microenterprise development. The present study uses resource-based view that examines the impact of collaboration, knowledge sharing, IT capability and dynamic capability in service innovation. Specifically, this study focuses on the impact microenterprise on service innovation in the digital content industry. Therefore, survey focuses on multiple dimension which microenterprise was conducted to validate a proposed model in Taiwan. The results support positive relationship between service innovations and multiple proposed antecedents, and service innovation has the positive influence on performance.

2. Literature Review

2.1 Service Innovation

Researchers have emphasized the importance of differentiating between the types of innovation and the determinants of each innovation category to better understand innovation strategies (Damanpour, 1991). The degree of service innovation ranges from totally new or discontinuous innovation to a service involving a minor adaptation or improvement of an incremental nature(Garcia & Calantone 2002; Griffin, 1997). Gustafsson, Snyder and Witell (2020) offer an updated and comprehensive definition of service innovation. Thus, this study was concerned with the greatest and least degree of service innovation and we differentiated service innovation into incremental and radical innovation. Based on this literature reviews, service innovation needs to focus on source of innovation, type of innovation and innovation trajectories. From the three perspective, what sources of innovation will affect customer behavior to accept their service? What types of innovation will increase competitive advantage? Firms have cumulated technological trajectory to maintain their strategy. Firms develop innovation which was considered as their core resource.

2.2 Collaboration

Collaboration is the act of two or more parties working together to develop and release a new product, service or technology for mutual benefit (Emden& Droge, 2006; Tsou, 2012b). Collaborative partners have sufficient knowledge to facilitate sharing, learning and providing value. Coordination capability refers to the ability to build a knowledge-intensive and interface with other firms and organization (Matusik, 2002). Coordination are mainly conceived as internal: relating to tasks and activities within the firm. Relational capability refers to the ability of firms to forge, develop and govern partnerships enhancing knowledge which was exchanged across boundaries bringing together various sources of expertise, and increasing lateral interaction. (Tsou, 2012a). Capability are likely to have strong relationships with their partners.

2.3 Knowledge Sharing

Knowledge sharing is generally regarded as an essential basic component of business development because it enables promotion and dissemination of best practices Knowledge (Hansen, 2002). Prior study indicated that knowledge sharing was a voluntary act (Davenport & Pruzak, 2000). Individuals can share their knowledge in formal interactions or across teams or work units in an organization (Tseng, Chang & Chen, 2012). Based on some studies, some factors affect Knowledge sharing, such as technologies, motivations, leadership and culture, and organizational climate. To sum up, km and knowledge sharing have been confronting important issue in organization that managers create high quality environment to attract employee who sharing their experience, information and skill through tangible and intangible reward.

2.4 IT Capability

IT capability is the capacity which control IT-related costs, deliver systems when business objectives needed and affected IT implementation (Ross, Beath & Goodhue, 1996). IT capability depends on the three types of IT assets, including IT human resources, technical assets, and the IT relationship (Ross et al., 1996). According to other literature that RBV adapted to the ITBV domain. By defining sets of resource attributes, the RBV facilitates the specification of IT resources, IT resources can be compared with one another and, link between resources and sustainable competitive advantage through a well-defined dependent variable. The strategic value of IT resource will be measured useful way (Wade & Hulland, 2004).

2.5 Dynamic Capability of Market Orientation

Dynamic capabilities were defined that they are routines in the firm's managerial and organizational processes that goal to gain, release, integrate and reconfigure resources (Teece, Pisano & Shuen, 1997). Dynamic capabilities enable organization to explore existing resource for competitive advantage (Eisenhardt & Martin, 2000). Dynamic capabilities reconfigure, obtain, and release specific resources to match and create market change (Eisenhardt & Martin, 2000). Dynamic capability is a stable collective activity through organization generates and modifies its operating routines in pursuit effectiveness (Zollo & Winter, 2002). In so far, the relationship between competitor orientation, customer orientation and innovation have direct influence. In dynamic environment, company pays attention to competitor orientation and customer orientation which explore new information to change marketing.

2.6 Performance

Performance has been defined using a number of different terms such as effectiveness, equity, productivity, and efficiency (Haytko, 1994). Prior research has studied business performance from different perspectives, such

as financial performance, business unit performance, or organizational performance (Venkatraman & Ramanujam, 1986). To measure innovation performance, one must consider the financial and non-financial performance of a firm (Avlonitis et al., 2001). These outcomes include the establishment of new markets, the attraction and retention of customers, increased customer loyalty, cost efficiencies, and brand reputation. As some scholars pointed, efficiency and effectiveness are the two crucial dimensions for assessing innovation performance (Olson, Walker, Ruekerf & Bonnerd, 2001).

2.7 Research Hypotheses

2.7.1 Service Innovation and Collaboration

Because organizations are rarely self-sufficient, they will search external resource from collaborative relationships to obtain critical resources. Companies will create core value and advantage what they must achieve through collaboration, partnering, alliances, joint ventures, and so on. Due to a cooperative relationship aimed at innovation (Sarin & Mahajan, 2001), firms may improve their ability to focus on innovation by enforcing their relationships with competitors and customers (Kaufman, Wood & Theyel, 2000). Collaboration substantially enhances innovation when firms obtain important technology from outside resource. Collaborations allow a firm to access new resources which positively affect innovation. Relationships are generally appeared on design produce or process of innovation. We propose that firms have stronger collaboration with external partners and customer and firms will be better at developing new service, technology in market. Therefore, we hypothesize the following:

H1: Collaboration has a positive impact on service innovation

2.7.2 Service Innovation and Knowledge Sharing

Arthur Anderson Business Consulting group proposed equation to show that knowledge grows exponentially as knowledge sharing increases in organization. Tacit knowledge sharing is critical for organizations 'innovation capability (Knight & Cavusgil, 2004). Knowledge management can facilitate such collaboration that acquiring knowledge and skills through collaboration is considered be an effective and efficient way of successful innovation (Du Plessis, 2007). We can speculate knowledge sharing and innovation have directly relationship. In summary, organization develop knowledge sharing to enhance competitive advantage.

H2: knowledge sharing has a positive influence on service innovation

2.7.3 Service Innovation and Dyvamic Capability

The presence competition may provide innovative service offerings and more efficient utilization of resources (Dickson, 1996). Imitating a competitor services can be considered attractive source of service innovation. We expect a dynamic capability of competitor orientation to affect volume of service innovation. Competitor orientation culture contributes intelligence and facilitates service innovations. Innovation influences culture in the organization that market needs will be analysis and revision (Menguc & Auh, 2006). According to this study, customer orientation and competitive orientation are important development strategies in firm. We predict that customer oriented and competitive orientation are more inclined to develop service innovation.

H3: Dynamic capability of market orientation is positively related to service innovation

2.7.4 Service Innovation and IT Capability

Innovation requires a great variety of resources and a departure from existing technology and practices (McDermott & O'Connor, 2002). Firms deal with customer information rapidly and effectively trough IT resource. Integration of systems infuses employees' distinct knowledge into innovation. To create a new channel or method

of service, firms need to possess IT infrastructure intangible resources. Firms with stronger IT capability will better implement service and process innovation. Thus, IT capability is the operant resource for a new service that offers an opportunity to provide new and innovative services. We hypothesize the following:

H4:IT capability has a positive impact on service innovation

2.7.5 Service Innovation and Performance

Innovation plays an important role in firm performance (Germain, 1996). Firm's improved market performance will positively affect their financial performance. By integrating innovation capabilities into their service activities which can create high service quality and provide better value to its customers and differentiate their performance (Yang, 2012). We propose that the implementation of service innovation practices is a possible determinant of firm performance. Hence, we hypothesize the following.

H5: A firm's service innovation will positive effect on its market performance.

2.8 Research Framework

According to the service innovation, collaboration, knowledge sharing, dynamic capability of market orientation, IT capability and performance, this study proposes the research framework depicted in Figure 1:

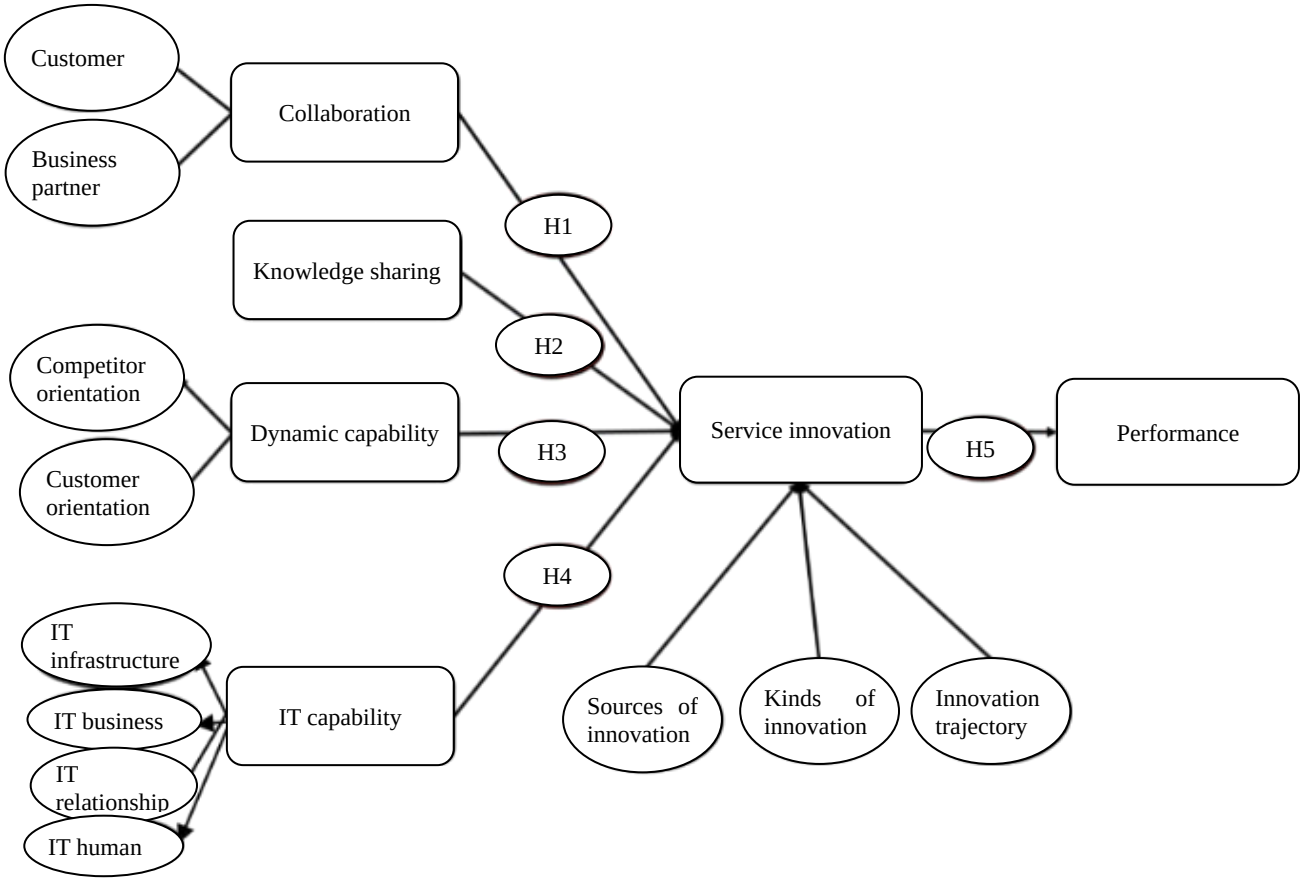

Figure 1 Research Framework

3. Research Method and Results

3.1 Questionnaire Designs

In this study, the construct refers to literature in this questionnaire. After discussing with some experts, we design the first edition. We make the pretest for the questionnaire. We understand the suitable degree of the questions to test our model and hypotheses, we designed and used a questionnaire. We generated a structured questionnaire based on academic- and practitioner-oriented literature. Data were secured by means of a 4-page self-administered questionnaire. This study aims to examine the relationships between service innovation, collaboration, knowledge sharing, dynamic capability, IT capability, firm performance in the digital content industry.

Since this study was conducted in Taiwan and we adapted, modified, and extended existing scales. Our survey language has been transformed from English to Chinese. The questionnaires were verified based on interviews from digital content industry. The questionnaires were distributed and collected by the authors. Questions used 5-point Liker-type. We decided to use smart PLS 2.0 analysis because we had a relatively small sample size and our model had formative constructs. Also, PLS, which uses components-based algorithms, can estimate formative constructs. We used PLS Graph 3.0 to perform SEM and to evaluate the quality of the measurement model. We adopt networking questionnaire to recycle data. The total respondent questionnaires were sent 982 and got 375 questionnaires return. We deleted invalid questionnaires or missing data (31 Invalid questionnaires). Effective questionnaires were collected from 344 survey candidates (Effective response rate of 91.7%). In this research, we use Content Validity and Pearson's correlation coefficient. According to Fornell and Larcker (1981) advised, we used AVE (Average Variance Extracted) to test the convergent validity of items and dimensionality, the criteria is more than 0.5. But Fornell and Larcker (1981) considered that even AVE standard deviation has more than 50% measurement errors, the construct convergent validity is appropriate when it just measure by CR (construct reliability) only.

3.2 The Structural Model

It shows the results of PLS estimation for the direct effects. A bootstrapping technique was used to determine the significance of the structural paths. The path coefficients for the research constructs are expressed in a standardized form. The predictive power of the research model was assessed by examining the explained variance (R2) for the endogenous constructs (As shown in Figures 2, 3). The structural model as shown in Figure 1. Four of the path coefficients were greater than 0.3, it indicates that they were meaningful and significant (Chin, 1998). Collaboration is between 0.2 to 0.3, it will be accepted range. Hypotheses 1, 2, 3, 5 are supported, except for knowledge management to service innovation ($\beta = 0.04$, $t = 1.369$, $p > .05$; Hypothesis 4 is not supported). For the digital content firms, the positive relationship between collaboration and service innovation was significant, the positive relationship between dynamic capability and service innovations was significant, and the positive relationship between service innovation and performance was significant, the positive relationship between IT capability and service innovations was significant. With regard toR^2, collaboration, dynamic capability, IT capability and knowledge management explained 79% of the variance in service innovation. Service innovation explained 45% of the variance in performance. These values were all significant ($p < .001$) (As shown in Figure 4).

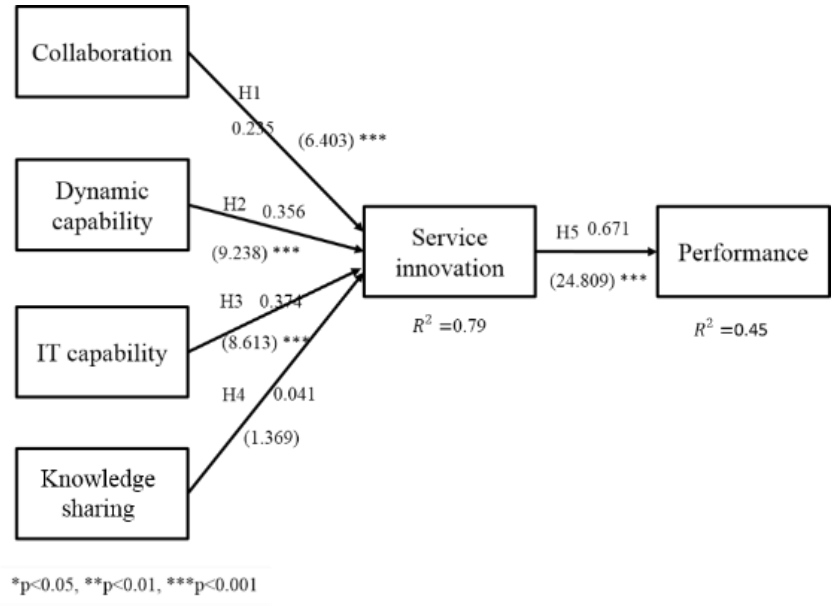

Figure 2 The Structural Model PLS Result

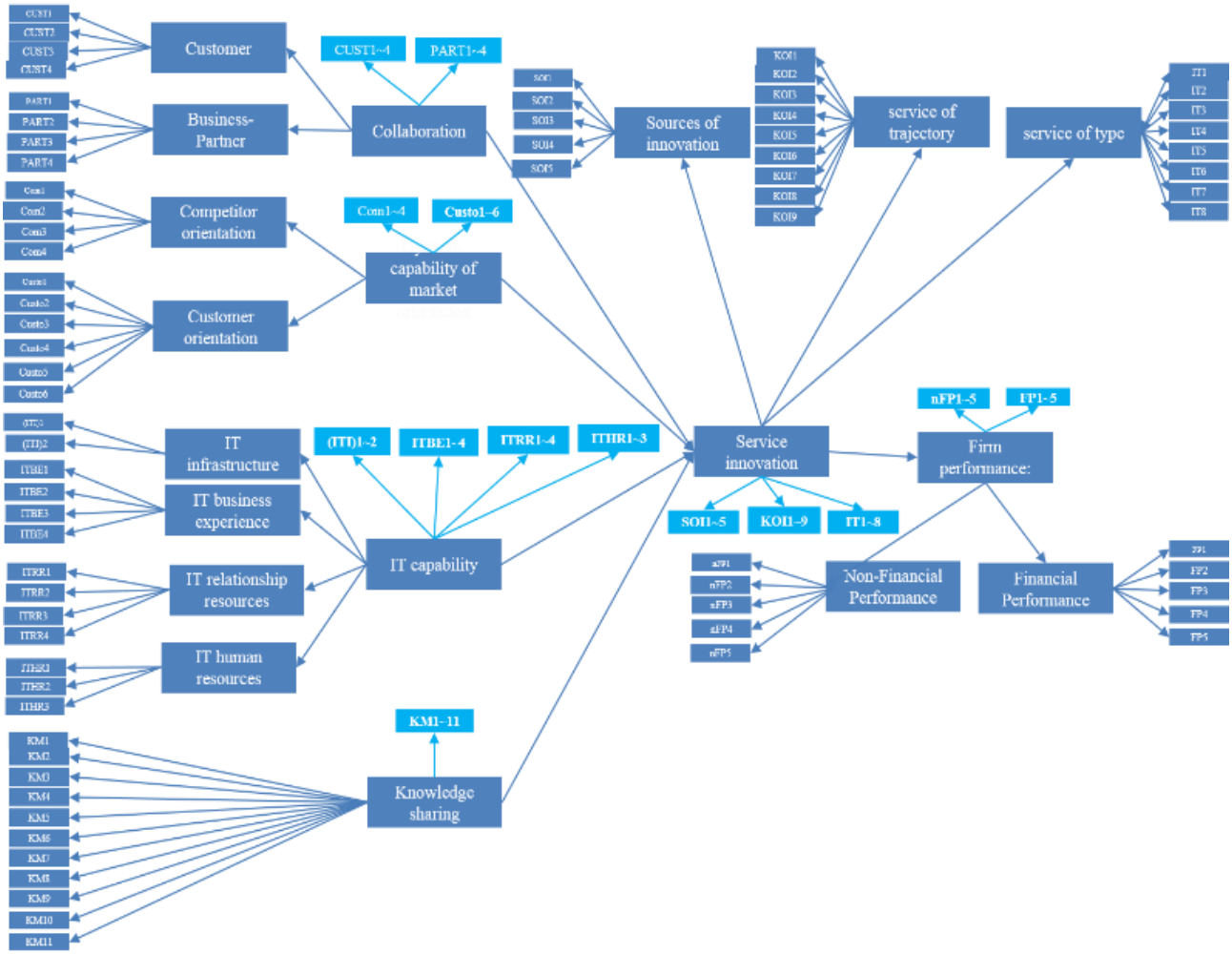

Figure 3 The Structural Model

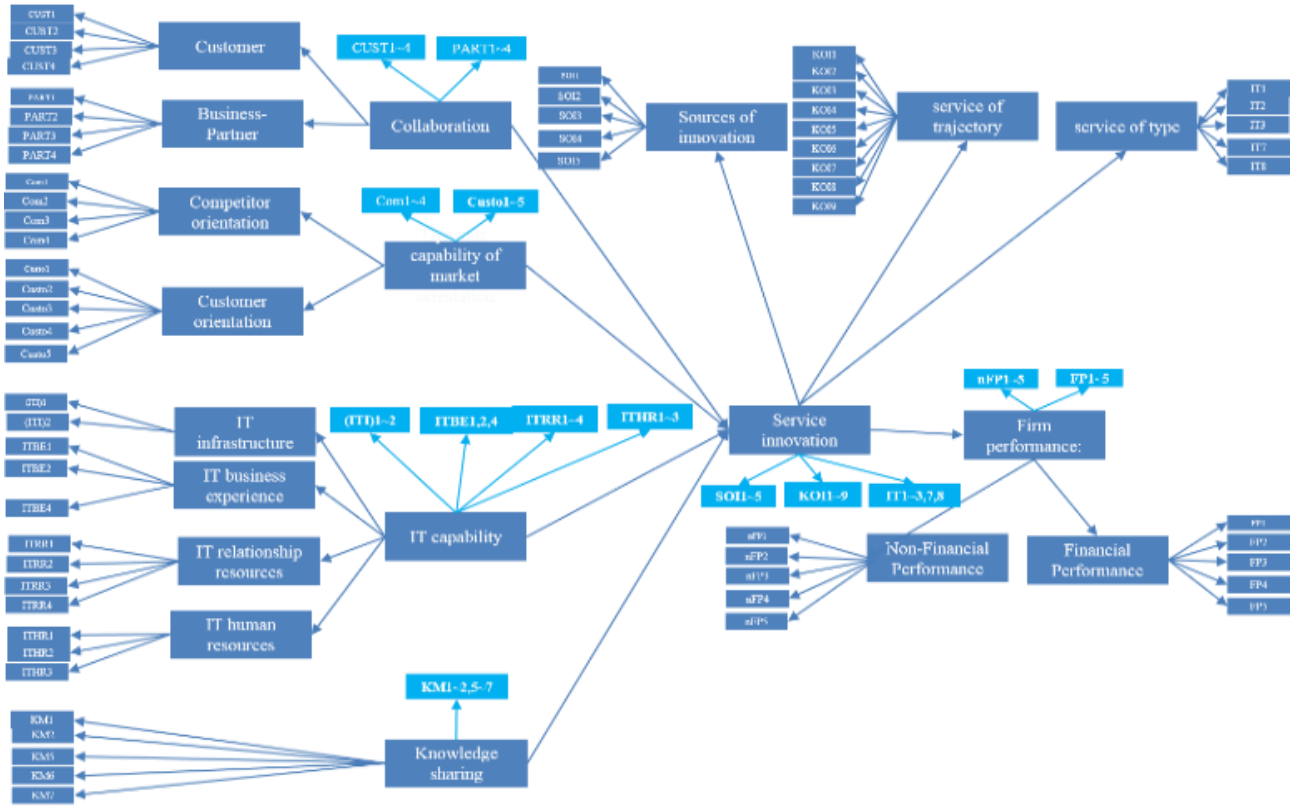

Figure 4 The Structural Model(After Deleting Factor Loading)

4. Conclusion

4.1 Research Contributions

The theoretical contribution of the study is that it extends existing work on the relatively young research field of service innovation into the microenterprise. It does so by identifying the key micro foundations on which such firms need to focus or search internal and external influence factors if they are to increase the service content of their business portfolio. Since firms are the primary empirical base of previous research into service innovation, the focus on an industrial setting helps fill that research gap. The research findings show that relying on IT capability, is sufficient for success in service innovation.

4.2 Implications for Practice

This study highlights the importance of managerial emphasis on the creation of a market and competitor orientated business environment and encouragement of innovative activities. Given that dynamic capability helps managers be more connected to the external business environment. Market orientation appear to play an important role in allowing microenterprise's firm to devise innovative solutions to business problems. Customers' preferences lead to influence innovative activities are changing rapidly when they operate in an unstable market. Customer orientation should be regarded as the starting point in introducing service innovation to a firm. Gathering market intelligence on competitor actions is the first step for creating service innovation. These conditions can for firms to innovate more often than before. The involvement and support of top management is secured, sufficient technological resources and capacity are dedicated to getting the service innovation done in the

time allotted.

4.3 Limitations and Future Research

This study has several limitations. First, the model is not robust enough to include all possible factors influence to service innovation. The future study can develop more highly relevant factors into research framework, and compare different outcomes to find out which variables have the greatest influence on innovation. Second, the methodology should be chosen construct model to explain each dimension relationship, improved by selecting more accurate scales for certain variables, adopting a more rigorous process to validate formative scales. Third, this research data is taken from a single source from digital content industry that this industry doesn't totally explain phenomenon. The future study can choose different industry to discuss innovation in this framework. Fourth, this research is primarily based on the subjective measure, so that evaluation of a firm's data is inclined toward subjective biases. Future research that collects diverse viewpoints or objective data can potentially overcome biases. Finally, this research was conducted in Taiwan where there may be more toward different industry compared with many other countries. This research should help to confirm the applicability of the results in other countries.

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