The Fit Effect Model among Facilitating Factors on Service Innovation Performance

Yue-Yang Chen, Hui-Ling Huang, Wan-Yu Yu, Chung-Lun Wei

Abstract—In recent years, the concept of fit has been now in widespread used in strategic management research, it is in its infancy for applying fit concept to service innovation issue. Therefore, drawing on the concept of fit, this present research proposed an innovation service fit model within service innovation, market orientation, marketing strategy, and IT adoption are coexisted. The perspective of fit as covariation will be employed to test the hypothesis and identify the effects of fit. We contend that the fit among these four factors will contribution to business performance. Finally, according to the empirical data collected from manufacturing, service, and financial industry in Taiwan, meaningful findings and conclusions will be proposed and discussed.

Keywords—Service innovation, market orientation, IT adoption, marketing strategy, fit

I. INTRODUCTION

The great progress from agricultural society to the industrial society; the development of information and communication technologies have changed the ways companies operated. In the competitive environment, firms must pay more attention to the quality and efficiency of their products and services. Innovation refers to using of new and innovation influence each others deeply. Thus, the concept of fit as covariation will be employed to test the hypothesis and identify the effects of fit. We contend that the fit among these four factors will contribution to business performance. Finally, according to the empirical data collected from manufacturing, service, and financial industry in Taiwan, meaningful findings and conclusions will be proposed and discussed.

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I. INTRODUCTION

THE great progress from agricultural society to the industrial society; the development of information and communication technologies have changed the ways companies operated. In the competitive environment, firms must pay more attention to the quality and efficiency of their products and services. Innovation refers to using of new knowledge fit in the appropriate processes and methods in order to supply customer needs and wants. Therefore, innovation capability is the critical concerns to attain the competitive advantages in the knowledge-based economy for organizations [2], [12]. Innovation is defined that “As the intentional introduction and application within a role, group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization or wider society” [72, p.8].

Nowadays, innovation is defined by many different meanings, however, in organizations the meaning of innovation contain not just only products and innovation of technologies; it also contains innovation of processes, skills, and structures of organization for goods and services. In the other hands, particularly in service section innovation becomes a new trace of business operating movement. Companies who failed to change or innovate in their daily operations, their performance will be declined in the turbulence competitive world. Meanwhile, the rapid develop of innovative products such as online music, virtual communities, digital learning, mobile commerce, and location, such as wireless sensor... etc. thus, innovative services have been integrated into our daily lives. Innovations in services have led to the greatest level of growth and dynamism over the past several years in terms of economic activity [19], [33]. Innovation services improve takes into account the customer's prospect and it also can be integrated across all functions of the organization [77]. Also, it seems that more products which are included innovation, activities, and services are accepted by customers in the market increasing; innovation and service enhancement are also the focus of critical issue in our life [42].

So far, information technology play a role of facilitator for service innovation and development has been accepted [75]. By using IT extensively, marketing strategy, market orientation actions, and cooperate with companies in various service innovations, can clearly and rapidly identify demands of the markets. Han et al. [30] also considered that market orientation and innovation influence each others deeply. Thus, the concept of marketing orientation is that through customers, competitors, and good internal function coordination building up customer value and competitive advantage [48]. Moreover, products and services are satisfied the needs and wants of consumers through exchange information, collection, and integration of innovation knowledge, storage, conversion, sharing, interaction to customers and communication make more diversify into markets, indeed. Finding out about the needs of the customers helps companies to decide how to target the market orientation and decide what the best marketing strategies are and how they should be used for those consumers. To understand on the market consists of recognizing and creating consumers’ needs, consequence, create more opportunities and enhance competitive capabilities. Consequently, company design products within full of innovation ideas and information even adopt information technology as business strategy in order to promote products which can be acceptable into market successfully.

Furthermore, according to Powell [53], the well alignment between organizational processes and strategic decisions makes a major contribution to competitive advantage. Doty et al [22] also indicated that increased organizational effectiveness is driven by the internal consistency or “fit”
between the various patterns of relevant contextual, structural, and strategic factors. In addition, Henderson and Venkatraman [31] and Woolfe [74] also mentioned that lack of strategic alignment among resources that a firm possesses may cause organizations to be unable to realizing adequate value from their IT investments. Specifically, alignment has been found not only to make a great contribution to the potential capabilities of an organization’s IT infrastructure; it also exerts a significant direct positive effect on organizational performance [6], [54], [76]. Consequently, firms which have a good internal or external strategic alignment among their structure, process, and capability can make a good organizational performance [71]. On the contrary, misaligned in organizations will result in redundancy and inefficiency in IT functions, and postpone in increase in costs [28]. More seriously, it can be one of factor causes organization’s performance declines [11], [43], [51]. An effective strategy of a business is the one that collectively reflects consistency or coherence among these four dimensions mentioned above.

Moreover, due to the concept of strategic alignment has not been adequately clarified when employed in the various social science streams [20], [69], the above mentioned strategic alignment of the three constructs is in the need.

Therefore, the purpose of this study is threefold. First, it plan to provide further insights into the performance implications in a broad conceptualization of strategic alignment among service innovation, IT adoption, market orientation, and marketing strategy. Second, the strategic alignment model will be examined by using the multiple perspectives of fit as covariation, fit as profile deviation, and fit as gestalts. The research model we proposed can use these four approaches to test strategic alignment among these constructs that mentioned above in a holistic perspective manner. Finally, our research examines by using the multiple perspectives of fit as innovation, IT adoption, market orientation, and marketing strategy can make a good organizational performance [71].

Henderson and Venkatraman [32] contend that the key strategic IT management challenge lies in the identification of those strategic dimensions that require modification under different contingencies for enhancing organizational performance. Moreover, researchers have come to realize that an absence of strategic alignment probably can cause organizations to be incapable of realizing sufficient value from their IT investments [62].

A. Service Innovation

Innovation which means began to adopt new ideas implement new activities or to participate in organization [5], [24], [52], [78]. Therefore, creative new ideas on product, service, and procedure transfer into new product and new service in market [66], [68]. Innovation is defined as implementing new ideas that create value [40]. It can be categorized as several types, including new product development, the deployment of new process technologies, and management practices [36]. Service innovations hard to understanding by using traditional innovation theories and classify [18], [33]. Innovation theory has been based on technical innovation in manufacturing firms. However, the indistinct of service output makes difficult the measurement of service innovation by traditional managerial and economic methods [27].

II. LITERATURE REVIEW

A. Service Innovation

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B. IT Adoption

Porter and Millar [55] indicated that IT technology is not just only a computer and it also contains automatics, hardware, and software service and communication technology. Multi-successful stories involving the strategic usage of IT have been described in the literature [56], [57], [59]. As Henderson and Venkatraman [32] contend that the key strategic IT management challenge lies in the identification of those strategic dimensions that require modification under different contingencies for enhancing organizational performance. This means that IT strategy should be integrate with business strategy or other meaningful activities; the optimal effectiveness can be achieved for an organization. Moreover, researchers have come to realize that an absence of strategic alignment probably can cause organizations to be incapable of realizing sufficient value from their IT investments [62]. According to Azab [6], fit has been found not only to make a great contribution to the potential capabilities of an organization’s IT instrument and it also apply a significant direct positive effect on organizational performance. In the other hands, unsuitable alignments in organizations results in inefficiency in IT functions, and waste in an increase in costs and delays [8], [28], [29]. More seriously, it can be a serious issue cause organization’s performance declines indeed [11], [43].

C. Market Orientation

Market orientation can be defined that extension from marketing concept [34], [35], [61]. Therefore, the term of market orientation has been widely used. It also is defined as “the organization-wide generation of market intelligence
pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it” [26, p.6]. Selnes and Wesenberg [60] indicted market orientation as a “response to market information” and via collect and usage of information on market the managing determinants of a market orientation. Hence, market orientation can be classified literature into five aspects: decision making, market intelligence, cultural, strategic, and customer [16], [39].

D. Marketing Strategy

Market is a very important area where the trading of goods or services takes place. The definition of marketing is that “marketing is the analysis, planning, implementation of carefully formulated programs designed to bring about voluntary exchanges of values with target markets for the purpose of achieving organizational objective” [38]. Marketing usually plays a role in the channel of communication between the marketing places and customer usually handles with increase revenue and manufacturing usually responsible for receiving the design for production and decrease cost [9], [41], [45]. Therefore, the concept of “Strategic Marketing” has been addressed in Boston Consulting Group in 1970s and its famous BCG product portfolio matrix. Marketing strategy represents the way that positions to marketing competitors, and how it confronts with the future challenges without strategy, organization might find itself in a dilemmatic situation of conflict its short-term decisions with long-term goals [63], [64]. “Marketing strategy can be defined as a set of integrated decisions and actions.” [17, p.19]. Hence, Kotler and Singh [37] applied principles of military strategies to business and addressed “Marketing warfare” [37]. In order to satisfy customer needs and marketing objectives value, companies apply marketing strategies [14], [25]. Therefore, when the marketing strategy is classified the business and puts together as a strategy. Following McCarthy [44] and William [73], marketing strategy can be defined as: a target market as well as an appropriate marketing mix and an overview of what a company will exploit a given market. In addition, there are four sets of tools which are called the marketing mix have been proposed, namely product, price, place and promotion. They are the basic of a model creating and implementing marketing strategies which marketing managers can control in order to make plans and important decisions that businesses use to implement the marketing strategy. As O’Shaughnessy [50] mentioned “Product, price, promotion and distribution are factors that, within limits, are capable of being influenced or controlled. Marketing strategy can be viewed as reflecting a marketing mix of these four elements. Every market has its own logic whereby excellence on one element of the mix, whether product, price, promotion or distribution, is often a necessary condition for success” (p.54). The goal of marketing mix is to make decisions that center these four elements in order to create an integrated product and service offering to customers that satisfies customer needs and wants. Moreover, marketing strategy concerns analysis of 3Cs: customers, competitors, and corporations. Thus, companies combine this understanding into an overall understanding of what segments exist; deciding on targeting the most profitable department, and positioning products [7], [47]. Consequently, a marketing strategy implementation will become a company's hope to achieve strong and profitable customer relationships as target by using strategies. Therefore, marketing strategic of a company is process by which an organization tries to utilize its limited resources on the best possible options in order to increase sales and achieve a long-term competitive advantage.

III. FIT AMONG FACILITATING FACTORS

A. Fit between Service Innovation and Information Technology

Innovation refers to put knowledge become to physical products and during this process emphasis on the interaction and feedback mutual information from customers, products, and internal across-functional departments. Therefore, innovation is the main factor string knowledge and technology information together [13]. Consequently, dimensions of information technology adoption include that IT infrastructure, strategic alignment, organizational structure and individual learning. Therefore, the IT adoption and service innovation are highly positive relative, and it also combination of IT and service innovation will affect the internal and external enhance competitive advantage [12].

B. Fit between Service Innovation and Market Orientation

Atuahene-Gima [3], [4] indicated that company who adopt marketing orientation to promote business and among innovation marketing fit, innovation technology fit, and teamwork will be able to enhance their business performance. Olson et al. [49] also indicated that marketing orientation and marketing mutually reinforcing will exhibit better performance in business organization. Due to marketing orientation and innovation, represent that fit as strategy impact the group organization culture and hierarchy of management changing attitude. Consequently, it affects employee job satisfaction, organization commitment, self-confidence, and task performance. This present research argued that a company may collect information from customers, competitors, even cross-functional departments to understand the trend of marketplaces to support their innovation for products or service. Thus, a well service innovation in products or services depends on the quality and quantity of information and techniques a firm learned or created from marketplaces. Furthermore, according to Zhou et al. [78] strategic orientation of market orientation and innovation orientation must be integrated for achieving employee’s commitment, job satisfaction, and firm’s future performance. Therefore, we believe that fit between service innovation and market orientation has a positive impact on performance.

C. Fit between IT Adoption and Market Orientation

The research of Saini and Johnson [58] shows that there are
122 online agents service performance discovered that there is a significance on the performance, strategic flexibility, and have abilities building trust on the website. Hence, an appropriate marketing orientation will enhance the performance via IT adoption. Day [17] proposes that enterprises need to gain information from consumers and competitors. In across function department employee share, exchange, and spread their intelligent in order to expand more information into market. Therefore, firms adequate understand marketing orientation in order to integrate strategy to fit in. Swift [65] shows that in an organization marketing orientation affect customer relationship management efficiently, thus, there are three dimensions in customer relationship management which are relative activities, information collection from customers, and IT adoption. By using IT, company gains information more easily and quickly from clients. In our research, firm application on IT instrument frequently and collect information precise in short term. Hence, enterprise will more quickly archive well known data on marketplaces. Further, Company acquaintance information and market orientation then promotes their product into market. Literature review develops that strategic fit between IT adoption and market orientation has a significant direct effect on organizational performance.

D. Fit among Service Innovation, Information Technology, Market Orientation, and Marketing Strategy

According to Kandampully [21], through the adoption of IT, firms can gain more information and knowledge to create and maintain networks of relationships between firms and their internal and external partnerships. Consequently, combination of technology, knowledge and network can provide a firm the ability to focus its resource on the future needs of customers and for organizational innovation. Moreover, Chen and Tsou [12] propose that information technology dimensions include: IT infrastructure, strategic alignment, organizational structure and efficiency of individual learning. Hence, IT adopting and service innovation has a significant direct effect internal and external competitiveness. Furthermore, Atuahene-Gima [3] proposed two constructs; the first one is the innovative market fit. It means that company has available abilities to develop new products within firm’s limited in resources and marketing capabilities such as sales teamwork, logistics, market research, and customer service. The other constructs is that innovative technology fit. Hence, company manufacture within present technology to product new goods. Those two aspects showed that the higher level of strategic fit and new products promote more successful in market. That is, if enterprise properly used fit of the service innovation and information technology can bring more benefits. In our research, market orientation via technology instrument to gain information then use innovation capabilities to develop new products within appropriate strategy alignment and promote into market. Therefore, an overview of the literature found that service innovation, information technology and market orientation complement with strategy alignment to achieve best organization outcome.

So that is a significant strategy fit among service innovation, information technology and market orientation. For example, alignment of relationship between IT and marketing strategy; development of IT to fit in marketing strategy; integration of IT with various marketing strategies to help firms driven to market orientation; or deploying right IT solutions to support process or product innovation. Calantone et al. [10] propose that research to 140 US companies show that they work in an uncertainty industrial environment within effective strategies and in flexible organizational structure is more important successfully rather develop new products in the market. Therefore, firms need to find out the appropriate strategy to fit in base on market orientation and fit good strategies in the organizational structure also enhance innovation capabilities. That is the alignment indeed plays key roles in the creation of organizational performance. In our research, developing marketing strategies with IT adoption has often a strategic role to gain competitive advantage. Company application suitable strategies fit in market orientation then create service innovation or differentiating the product for customers.

IV. A HOLISTIC PERSPECTIVE AND HYPOTHESIS

The fit model in our research containing service innovation, IT adoption, market orientation, and marketing strategy is proposed because of their reinforcement with each other and serving as the basis for performance (i.e., business performance). The conceptual model underlying the present research is illustrated in Fig. 1. It mainly extends related models and other fit arguments into strategic alignment context, examining the relationship among service innovation, IT adoption, market orientation, and marketing strategy at the business unit level. In the conceptual model, the fit among these strategies is hypothesized to affect organizational performance in market growth and profitability. Therefore, the following proposition is proposed:

Proposition 1: Fit among service innovation, IT adoption, market orientation, and marketing strategy has a positive direct effect upon organizational performance.

Fig. 1 The fit effect model for service innovation
V. CONCLUSION

The field of fit in innovation service is still in its infancy. Progress in the field has been hampered by the adoption of a narrow perspective on specific aspects of innovation. This has resulted in highly ambiguous results, an inability for generalization in academic research and practical operation. Based on the premise that the business value requires strategic alignment among innovation, IT adoption, market orientation, and marketing strategy, and the “systems” approaches are superior to “bivariate” approaches in strategic alignment model construction [11], [23], [46], [67], [70], thus, we developed a holistic strategy model for analyzing and assessing alternative strategic patterns with regard to innovation performance. Extension of this work would move in two directions. First, this model needs to be verified with empirical data in order to assess this innovation fit model. Second, by conducting alternative perspectives of fit with statistical testing methods to verify what kinds of alignment has more significant effect on performance. Since alternative of fits have their own underlying arguments and meanings, it would be beneficial that made this kinds of comparison for innovation practice.

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