

The Effect of Organizational Structure and Hoteliers' Risk Proclivity on Innovativeness

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The Effect of Organizational Structure and Hoteliers' Risk Proclivity on **Innovativeness**

ABSTRACT

The purpose of this paper is to examine the impact of organizational structure and hoteliers'

risk proclivity on innovativeness in the context of the Japanese hotel industry. Survey

questionnaires were used to collect relevant data from 115 hotels in Japan. Using a multiple

regression analysis, the antecedents of innovativeness in the hotel industry are been examined.

The findings are mixed with previous research but provide new insights by exploring the

effect of organizational structure and hoteliers' risk proclivity on innovativeness. As a result,

we believe that this research is valuable in understanding some key important drivers in

innovative activities in the context of the hotel industry.

Keywords: innovativeness, organizational structure, hotel industry, Japan

INTRODUCTION

Globalization and other rapid changes in markets and technologies increasingly have made

innovation and differentiation a necessity for every company (Song, van der Bij and

Weggeman, 2006; Tajeddini and Trueman, 2008). Successful innovation in turn requires a

clear articulation of a common vision and the firm expression of the strategic direction

(Lawson and Samson, 2001). Because strategic orientation is an indication of "how an

organization uses strategy to adapt and/or change aspects of its environment for a more

favorable alignment" (Manu and Sriram, 1996, p. 79), the adoption or implementation of a

successful orientation can provide guidelines for innovativeness, continuous improvement and

superior performance; indicating an ability to learn and adjust to change (Gatignon and

Xuereb, 1997; Sinkovics and Roath, 2004).

However this strategy relies heavily on how top management perceives environmental

conditions and internal capabilities, and how they can fulfill an organizational vision to

achieve long term objectives (Miles and Snow, 1978; Parnell, Lester and Menefee, 2000). Put differently, any new product including goods and services involves top management's willingness to bear uncertainty and their attitudes towards risk (Calantone, Garcia and Dröge, 2003; Tajeddini and Mueller, 2009).

In addition, although conventional wisdom suggests that there is no a universal or best structure or strategy which improves performance, contingency theorists suggest that successful innovation and economic performance result from appropriate combinations of structure-strategy, or more specifically from the appropriate alignment of strategy and structure (Jogaratnam and Tse, 2006). Subsequently, as businesses develop and grow, a layer of bureaucracy and mechanistic system will be woven into the fabric of organizational life due to increasing size and complexity. As a result, firms may lose their flexibility, innovativeness and the entrepreneurial spirit that they began with (Echols and Neck, 1998; Jogaratnam and Tse, 2006). Thus, Lawson and Samson (2001) note that the more permeable and organic the structure of a firm is, the greater the potential for innovative ideas to be developed and acted upon.

What is noteworthy is while a large number of marketing researchers have developed conceptual and theoretical models to understand in depth the processes of new product development, the likelihood of relating them in the setting of service sectors is unknown (e.g., Dolfsma, 2004; Sundbo, 1997), because the concept of innovation in the service industry differs from that in manufacturing industries (Damanpour, 1996). In this sense, service innovation is perceived as a "contradictio in termines" (Dolfsma, 2004). This is simply because it is rather difficult to apply the common accepted methods of measuring innovation for products to the heterogeneous group of industries such as service providers (Kleinknecht, 2000).

Nevertheless, service firms are among the fastest growing areas in transitional, emerging and developed countries, typically accounting for over sixty percent of employment

and a comparable share of GDP in many (Francois and Reinert, 1996; Lonial, Tarim, Tatoglu, Zaim and Zaim, 2008). As a result, we have witnessed innovations in services that have led to great levels of growth and dynamism over the past several years in terms of economic activity (de Brentani, 2001), as the economies of developed countries shift from production to services (Palmer, 2001). This pattern indicates that innovation for service firms is no less important than that for the manufacturing sector in the 21st Century (Dolfsma, 2004). Yet it seems that in the literature there is an assumption of a lack of innovation in the service industries in general (Ottenbacher and Gnoth, 2005) and in the tourism and hotel sectors in particular (Orfila-Sintesb, Crespí-Cladera and Martínez-Ros, 2005; Erfurt-Cooper and Cooper, 2009).

Additionally, our understanding of the organization effectiveness process in the hospitality sector is often limited to research into service companies in western economic systems. Yet, the findings of these studies are unlikely to be appropriate for generalization into other cultures, systems and service sectors because of weak organizational fit (Hofstede, 1980; Jogaratnam and Tse, 2006). More specifically, since different hospitality businesses operate in different socio-cultural and organizational environments, the strategies of managers in practice may differ based on co-alignment with their specific circumstances (Harrington, 2001).

In order to test this assertion within the spectrum of tourism and hospitality, the present study attempts to examine the current state of innovation in the service industries associated with tourism. More specifically, the main purpose of this study is to test if appropriate organizational structures and a willingness of top managers to drive innovativeness within the context of the Asian hotel industry and whether this has performance implications for the service industries as a whole. In this regard, we focus on the hotel sector because of two reasons: (1) Hotel sector is regarded as an identical and homogeneous industry that provides an important part of tourism services. (2) It is also generic in the sense that different levels of hotel operations have a considerable impact on

visitor satisfaction in any destination. We begin by explaining the hotel industry in Japan followed by a discussion of organizational structure and managerial attitude toward risk as drivers to innovativeness as well as hotel financial performance. We develop a number of hypotheses. In the methods section, the study sample of Japanese hotels is discussed and construct measures are evaluated. Finally, the relationships among these constructs are assessed and discussed.

BACKGROUND AND HYPOTHESES

The hotel industry in Japan

Hotels in Japan are categorized as business hotels, city hotels, single-use hotels, and luxury hotels. While the number of Japanese-style inns has been declining, hotels have been growing in scale and number (JETRO, 2007). The increasing growth rate of the hotel industry can be attributed to the Japanese government's massive effort to improve tourism, including the launch of Visit Japan Campaign in 2003, the enactment of Basic Act for Promoting a Tourism-Oriented Country in 2007, and the establishment of Japan Tourism Agency in 2008 (Takeuchi, 2010). With these efforts, the demand for hotel rooms has increased significantly. For instance, the number of foreign visitors grew from 3.3 million in 1995 to 8.3 million in 2008, although this number declined to 6.9 in 2009 due to the global economic crisis (JETRO, 2008, 2009). Another remarkable trend that has contributed to the high growth rate of hotels is the surge of foreign-capital hotels, including prominent brand hotels such as Four Seasons, Mandarin Oriental, The Conrad, The Ritz-Carlton and The Peninsula (JETRO, 2007). Nevertheless, hotels in Japan are challenged by the continuing economic downturn, resulting in a downtrend of domestic leisure and business trips (Takeuchi, 2010). Although the number of hotels in Japan is growing, little knowledge exists about the relationship between the hotel structure, top management attitude toward risk taking in decision analysis and their influence on innovativeness and economic performance. This study stresses the need to provide top managers and executives of hotels with more plausible procedures on specific structure and entrepreneurial activities influencing innovativeness and enhancing financial hotel performance.

Innovativeness and financial performance in the hotel industry

Fierce competition in the global market has made *innovation* and *differentiation* a necessity for every organization. It can be argued that innovativeness enables organizations to differentiate themselves from their competitors. Innovative organizations usually have a tendency to adopt or generate a new system, device, technology, promotion, policy, process, product, program, or service which is not necessarily new to the market or industry (Damanpour and Gopalakrishnan, 2001; Matsuo, 2006). Matsuo, (2006) argues that "even when a firm imitates another firm's product or system, it can be recognized as an organizational innovation if it is new to the adopting firm" (p.243).

From the cultural standpoint, innovativeness it is viewed as the organization's orientation toward innovation (Hurley and Hult, 1998, p. 44). In this sense, innovativeness is seen as "the degree to which individuals viewed the organization as open to change, supportive of new ideas from workers, and tolerant of worker diversity" (Scott and Bruce, 1994; p.592). It also implies to the degree of openness and involvement in decision-making facilitates and enhances managers' commitment to innovation (Lee and Tsai, 2005). Traditional theories of innovation have mainly been developed to account for the processes of introducing new product features or new combination of existing product features to differentiate brands and gain a competitive advantage in the manufacturing industries related to technological artifacts (Zolfagharian and Paswan, 2008). Therefore, there is no wonder that the potential for innovativeness has long been an issue of interest for scholars as well as senior managers in manufacturing industries. However, there is a bundle of different factors that might affect the ability to innovate in practice. For instance, Ahmed (1998) claims that

many organizations talk about the importance of innovation and try to be innovative, but only a few of them actually succeed.

Numerous scholars (e.g., Cho and Pucik, 2005; Keskin, 2006; Tajeddini et al., 2006) have reported the positive relationship between firm innovativeness and performance in different firms and industries. The logic of this relationship is that innovation and creativity function as a coping mechanism in the cause of survival and adjustment to uncertainties and environmental changes (Matsuo, 2006). The results of innovativeness which can be manifested in the ability of the firm to create and implement new ideas, products and processes (Hult and Ketchen 2001), embrace different financial performance such as ROI, sales growth, profitability, market share, and percentage of new product sales to total sales, (Hult et al., 2004). Avlonitis, Papastathopoulou and Gounaris (2001) identified a continuum of six degrees of innovativeness, namely "new to the market services", "new to the company services", "new delivery processes", "service modifications", "service line extensions" and "service repositioning". They found that not all degrees of innovativeness are equally related to a high degree of performance. Rather, they found that there exists an inverted U-shaped relationship between the degree of innovativeness and the financial performance (Avlonitis et al., 2001). Avlonitis and coworker (2001) also found that very high and very low degrees of innovativeness are both less positively related to success, whereas moderately innovative services are more strongly related to high-financial performance. Tajeddini (2010) argues that innovativeness has a positive impact on hotel performance in Switzerland. Similarly, we argue that innovativeness should has a positive effect on financial performance in the Asian context as well. Therefore, we hypothesize:

H1: Innovativeness in hotels is positively associated with performance, measured by (a) profit goal achievement; (b) sales goal achievement; and (c) ROI achievement.

Organizational Systems

Changes are often initiated by innovations, internal and external developments. General developments and innovations require not only to a strategic posture, but also a supportive organizational structure and administrative processes adapting to uncertain environments (Child and Tse, 2001). Clark and Fujimoto (1991), for example, in their study of product innovation in the world auto industry, found a synergistic impact of the organizational structure and the project leaders on NPD speed. However, a set of barriers to innovativeness suggested at in the innovation and marketing literature is related to the structural dimensions of organizations. For instance, Houston, Walker, Hutt, and Reingen (2001) assert that organizational structure and processes may develop inertia impeding the fundamental change in the organization. In this regard, Schumpeter (1949) who notes a larger organization may gain the advantages of greater efficiency through economies of scale in Research and Development, greater access to financing, better access to equipment and personnel as well as better access to complementary resources, whereas Shilling (2010) comments that size is likely to create an organization resistant to change and lacking entrepreneurial incentives. For example, it can be argued that although small firms have limited access to finance and strategic resources, they are more entrepreneurial and flexible since they do not have the burden of a large bureaucracy or large investments in fixed assets (Shilling, 2010). More specifically, Stampfl (1978) contends that higher levels of centralization and formalization make organizations less adaptive to marketplace and environmental changes.

Structure is defined as the "enduring allocation of work roles and administrative mechanisms that allow firms to conduct, coordinate, and control their work activities and resource flows (Miller, 1987, p. 8). Put differently, structure refers to an organization's internal pattern of relationships, authority, and communication (Thompson, 1967). Regarding innovation, organizational structure can form some standardized procedures and controls which have a bearing on an organization's ability to generate innovation (Schilling, 2010).

Although debate continues regarding the variety of dimensions of the organizational structure, the composite dimensions of centralization, where decision-making power is retained at the headquarters; and formalization, where decision-making power is routinized through rules and procedures (Ambos and Schlegelmilch, 2007). Centralization describes the degree to which decision-making is held by a few individuals at the top of the organization (Shilling, 2010). This type of structure shows to what extent members of an organization can participate in decision making. In contrast, decentralization facilitates receiving and implementing new ideas to be more closely aligned with each division's needs, resources and capabilities. In doing so, the accountabilities and authorizations are scattered across diverse business groups and the responsibilities are delegated to the division managers to decide whether the possibility of innovations fit within the operating structure of the organizations and fulfill the needs of the division's customer base. However, we should bear in mind that it depends on many factors that top management decide to arrange centralization or decentralization. For instance, in 1990s, Intel Corporation which implement decentralization since the late 1980s, faced serious delays and cost overruns. This forced Intel to shift from decentralization to centralization.

Formalization, on the other hand, is the extent to which organizations use rules define roles, norms sanctions, procedures and written documentation to regulate the behavior of employees or activities (Hall, Haas and Johnson 1967). Shilling (2010) argues while a formal structure may reduce the need for managerial oversight, it is likely that a rigid and inflexible structure will stifle innovation because it may discourage employees to generate new ideas and be creative. Prior research shows that structural forms (i.e., formalization, (de)centralization, and size) of the organization are associated with innovativeness (Damanpour, 1991). Arguably, small and flexible structures may facilitate firms to generate ideas and structure with well- developed standards and procedures may produce efficient and better investment decision and implementation.

Flexible organization structure tends to be more organic and entrepreneurial to the extent that it is more adaptable to their customers' needs. Such a structure allows employees to share their ideas, free to create, and facilitate the flow of information which led the organization to efficiently complete its work and expedite decision-making. In contrast, while formalized organization structure reduces ambiguity and provides direction to employees, it may reduce entrepreneurial orientation and innovativeness because of many written rules, policies, regulations and job descriptions. In particular, in the service and hotel industry, employees have less authority, limited power to resolve the problems or handle complaints and share their ideas. Prior research has less paid attention to the effect of organization structure and innovativeness in the context of hospitality industry. Therefore, based on above arguments we hypothesize:

H2: The more the flexibility in a hotel's employment structure, the higher the innovativeness in that hotel.

Top Management Risk Taking

Innovation in the service sector is likely associated with three types of risk: management risk, demand risk, and competition risk. Development and introduction of new services often require adjustment to the management system of an organization, because the tasks need to be coordinated and controlled especially when the new service is different from the current service offerings (Gatignon and Xuereb, 1997; Sinkovics and Roath, 2004). Such efforts generate management risk, resulting from uncertainties about how the ability, motivation, and opportunity of individual organizational members will be influenced by the process (Martin and Horne, 1993). For instance, new services that involve new technology may detract current performance of employees as their efforts should be apportioned to learning the new technology. On the other hand, demand risk results from the uncertainty about market preferences and reactions to new services. Customers tend to question the added value of new services, particularly when the new service is associated with an increase in

price, which may or may not result in their purchase of the new service. For example, despite high market anticipation, the Picture phone service introduced by AT&T in 1974 was a market failure because of its incremental value and high price (Zachary, 2008). The competition risk associated with innovation results from the uncertainty about competitors' countermoves. As indicated by Martin and Horne (1993), an introduction of a new service may lead to imitation among other service companies, downgrading the benefits of the pioneering service company. Moreover, since the nature of service industries is intangible and heterogeneous, services are easy and inexpensive to duplicate (Brady and Robertson, 1999; Mitchell and Greatorex, 1993). There is no wonder why low cost and risky projects such as incremental new service development are the most prevalent strategic choice for financial service providers (Alam and Perry, 2002). Likewise, sometimes business managers show their unwillingness to finance new service development since they can easily lose their pioneering advantage.

Thus, given that innovation in the service sector is a risky endeavor, the extent to which top management shows tolerance for risk will promote innovativeness among service companies. This is consistent to the upper echelons theory (Hambrick and Mason, 1984), claiming that top management traits determine the strategic orientation of an organization. In line with this, over 30 years ago, Peter Drucker pointed out that top management in the innovative organization should convert impractical, unfeasible, and wild ideas into concrete, feasible and lucrative innovative reality (Drucker, 1973). In a qualitative research, Tajeddini (2009) finds that innovation in the Swiss watch manufacturers requires constant vigilance and ever-renewed commitment of top management. In addition, Garrett, Covin and Slevin (2009) show that top management risk taking positively predicts the adoption of a pioneering market strategy among manufacturing companies. Hence, risk-tolerant top management teams will be more likely to promote innovation and commit to the process of delivering innovative services, which may be risky but can lead to better performance. Therefore, we hypothesize:

H3: *Top management risk taking in hotels is positively associated with innovativeness.*

METHOD

Sample frame and data collection

Data were collected by means of a mail survey questionnaire completed by owners and top of hotels located in different cities in Japan. Due to the risk of common-method bias, or the possibility of alternative explanations of the self-report data (Jogaratnam and Tse, 2006), it has been recommended to employ the respondent's perceptions to provide the most precise assessment of conditions within an enterprise (Lyon, Lumpkin and Dess, 2000). Thus, a questionnaire was carefully designed to ask respondents for their perceptions on a range of organizational variables including the nature of organizational structure (decentralization, formalization) (Miller, Dröge and Toulouse, 1988), risk taking, service innovativeness and the link with hotel business performance. The questionnaire was first developed in English and then was translated into the Japanese language. In an effort to avoid cultural bias and ensure validity and accuracy of the original scales in the Japanese context, the Japanese version was then back-translated into English by two management researchers competent in both languages and with substantial research experience in the subject area in Japan. The two translators then jointly reconciled all alterations and helped us control for vocabulary and syntactical equivalence in our survey. The suitability of the Japanese version of the questionnaires was then pre-tested by three Japanese management professors in order to identify any ambiguous or irrelevant items ensuring that the survey content and measurement scales were clear and capture the entire construct domain. Finally, in face-to-face interviews, we pre-tested the questionnaire with twelve hotel executives for face validity and construct validity and asked them to point out any confusing, irrelevant, or repetitive item. During the pretest, some owners and managers were interested in knowing about how this study might support them to gain insight in sharpening and improving their managerial effectiveness and skills. We promised them to supply executive summary as a major incentive. We excluded the pre-test distributed and returned questionnaires from the study. To identify the addresses of the hotels, we used data from Japan Hotel Almanac (2009). To ascertain the psychometric properties of the third version of scale, a random sampling method was employed. The random sampling frame represents a listing of all-star-grade hotels including independent brands, regional brands and international brands which are highly representative of the industry as a whole throughout the country. Thus, after the process of refining and finalizing the questionnaire, a self-administered questionnaire was given to a sample of 600 executives (e.g., managers and owners) of the hotels in Japan. The executives were targeted as the key informants because they typically participate in strategic decision for innovation and new service development (Tajeddini, 2010).

To maximize responses different approaches were utilized; such as modifying the length and the form of the survey, making more contacts, using preaddressed postage-paid envelopes as well as the promise of feedback and confidentiality. Each of the informants received a personalized letter explaining the objective of the study and a questionnaire by postal mail. Two weeks later, non-respondents received a gentle reminder mail and a second questionnaire. One hundred twenty-one respondents returned the survey. Four of these questionnaires were either incomplete or were answered by an uninformed source and were discarded. Two questionnaires were returned with letters explaining their refusal to participate. They were reluctant to disclose information due to confidentiality reasons, business policy and lack of interest and time as well as work pressures. In this process, 115 questionnaires were received and usable, resulting in a response rate of 19.16%. Non-response bias was tested using the method advocated by Armstrong and Overton (1977). The first 28 respondents (24.3%) were compared with the last 29 respondents on the mean responses to each variable. The results of the independent samples t-tests showed no significant differences

between these two groups with all p-values being above p>0.05, leading us to conclude that the probability of a non-response bias was minimal.

Table I provides some information about the respondents' demographic characteristics as well as their organizational characteristics. The questionnaires were completed by managers who were CEOs or by those with an equivalent position including general manager (33%), resident manager (24.3%), director/controller (13.0%) and functional manager (29.6%). Of the 115 respondents, 33.9 % were in their positions less 3 years, 20.9% (4 years but less than 7 years), 19.1% (8 years but less than 15 years), and 26.1 % more than 16 years. The majority of the respondents were male (79.1 per cent) which show male dominated culture of Japan. 16% of th respondents have fewer than 20 employees whereas the majority (61.7%) have more 61 employees. The majority of respondents consider their hotels as 4 star rated hotel. The majority of the respondents have categorized their hotels as international brand.

Insert Table I

ANALYSIS AND RESULTS

Measures

Multiple-item scales were drawn from strategic management literature and aligned with the conceptual aspects of each construct. Hotel Innovativeness was assessed using the five-item scale frequently adopted from Hurley and Hult (1998), because it incorporates management opinion about openness and receptivity to new and creative ideas (e.g. Management actively seeks innovative ideas) (Tajeddini, 2011). To measure organization structure, we use the scale comes from Khandwalla (1977) because it emphases on the flexibility of firms structure and considers the structure of firms as a key to competitive advantage (Conner, 2007). Managerial attitude toward risk was measured with four items derived from the change instrument of Lau and Woodman (1995) and Zhou, Gao, Yang, and Zhou, (2005). This scale evaluates

managerial attitudes toward service reform, viability of reform in their firm and confidence in that reform. This information was collected using a five-point scale (1= strongly disagree to 5= strongly agree) in response to statements about these variables. Business performance uses three self-reported perceptual measures developed from Kara, Spillan, and deShields (2005), namely profit goal achievement, sales goal achievement and ROI achievement for the last 3 years. This information was collected by using a five-point scale (from 1=worse than to 5=better than major competitors) in response to questionnaire statements about each measure. Each outcome item is phrased so that respondents evaluated these aspects of business performance relative to their business unit's primary competitors' (Conant, Mokwa, & Varadarajan, 1990). In line with previous studies, Matsuno, Mentzer and Özsomer (2002) reported that objective (i.e., certifiable by a third-party) relative performance measures were virtually impossible to obtain at the business unit level, and also subjective measures have been shown to be correlated to objective measures of performance. This scale also reflects the extent to which a hotel business practices because of exposure to business philosophy (Tajeddini, 2010).

Reliability and Validity Analysis

First, an exploratory factor analysis was conducted through principle component analysis to identify the measurement structure, followed by a confirmatory factor analysis (CFA) of all perceptual measures. The CFA model of structure and top management risk taking resulted in a reasonable fit to the data, with comparative fit index [CFI]= 984; incremental fit index [Delta2] = .984; (exceeding .90) and goodness-of-fit index [GFI] = .947; Chi-square [χ 2]= 30.541; degree of freedom [df]= 23 (Gerbing and Anderson, 1992) and root mean square error of approximation [RMSEA] = .054 (Table 2). In addition the model of innovativeness and performance also resulted in a reasonable fit (Fit statistics: χ 2=33.004; df=23; χ 2/df: 1.737; CFI= .981; GFI=.939; IFI=.981; RMSEA=.080; RMR=.020). The reliability analysis also

used Cronbach's coefficient alpha (Churchill, 1979) to represent the multi-dimensional constructs of innovativeness and organizational structure and business performance. In Table II, the overall coefficient alpha score for each construct suggests a high level of reliability since in each case the value is greater than the suggested cut-off level of 0.7 (Nunnally, 1978). The table also shows the alpha figures on removal of each item. Owing to the small differences between individual item scores and the scale alpha for each construct, the suggestion is that alpha will not be increased by deleting any of the items. This strengthens the case for scale reliability. In addition, composite reliabilities (CR) were used to assess the degree of consistency between multiple measurements of a construct (Hair, Black, Babin & Anderson, 2005). Average variance extracted (AVE) was used to measure the convergent validity (Anderson & Gerbing, 1988). The CRs of management risk taking (.90), organization structure (.87), innovativeness (.83) and performance (.95) exceed 0.70, which is the acceptable level suggested by Bagozzi and Yi (1988). The value for average variance extracted of management risk taking (.71), organization structure (.68), , innovativeness (.58) and performance (.87) also exceed the threshold level (0.50) suggested by Bagozzi, Yi, and Phillips (1991). A qualitative exercise was used to assess the content validity of the scales under study.

Insert Table II

We used two main characteristics in this analysis: the extent to which scale items depicted the construct's domain, and the thoroughness with which the construct to be scaled and its domain were articulated (Parasuraman, Zeithaml and Berry, 1988). The procedures observed by the authors whose constructs were utilized in this study are congruous with the recommendations of Churchill (1979) for developing psychometric marketing scales. Furthermore, for this research, face and content validity checks were performed on the organizational structure, innovativeness, and top management risk taking scales measures to confirm that the dimensions would be understood by the sample and reflect the theme that the

items were designed to capture. These checks were performed with the hotels' owners and managers as well as with academics with expertise in small service business management. Finally, since we have focused on different star rate hotels, it is important to make sure that the different extension of the samples does not influence the outcomes (Nilsson, 2007). We divided the hotels into two groups (one-two and three star hotels in one group and four and five star hotels in another group) and then based on the respondent demographics, some multiple regressions analyses were run and the results were compared with that in the entire sample. We found no significant difference between these two groups and the results of whole sample indicating the different sample sizes do not affect the outcomes.

Results

The drivers of hotel innovativeness were examined in a multiple regression analysis because of limited sample size. The regression results, for the purpose of model testing, use the parameters based upon independent variables shown in Table III. H1a, H1b and H1c postulate the influence of innovativeness in the hotel industry on performance, measured by (a) profit goal achievement; (b) sales goal achievement and (c) ROI achievement. As Table III shows, innovativeness is positively related to goal achievement (β = .587, p < .05), sales goal achievement (β = .776, p < 0.05), and ROI achievement (β = .737, p < 0.05), in support of H1a, H1b, and H1c respectively. Hypothesis H2 pertains to the effect of flexibility in hotel's structure on innovativeness of a hotel. As Table III shows, flexibility in hotel's structure is positively related to innovativeness (β = .221, p < .001), supporting H2. H3 proposes that top management risk taking in hotel industry is positively associated with innovativeness. As expected, top management risk taking (β = .650, p < 0.05), was significantly and positively related to innovativeness (all at p < 0.05), supporting hypothesis H3 (Table III).

Insert Table III:

DISCUSSION AND IMPLICATIONS

A number of scholars (e.g., Calantone, Garcia, and Dröge, 2003; Miles and Snow, 1978; Venkatraman, 1989) have explored that performance is contingent on the relationship, or fit, among organizational structure and strategy and its external environment. Although a welldesigned strategy and structure can help a firm to gain a competitive advantage, contingency theory states that there is no "best" strategy or structure (Glazer and Weiss, 1993) and a given strategy or structure will not be equally effective under firm-specific conditions (Galbraith, 1973). Thus, we adopt the paradigm of structure-strategy-performance (Mintzberg, 1973) and argue that hotels will maximize performance when there is an alignment between structure and strategy. For the purposes of our research, we maintain that the hotel's internal structure on encouraging a culture of innovation and hoteliers' risk inclination can strongly influence the strategic planning decisions in the innovation process. Our study addresses the impact of innovativeness on performance and the key antecedents to innovativeness in an empirical model. By validating the positive contribution of innovativeness to the performance of Japanese hotels, the study further extends the literature on innovativeness that has been focused on manufacturing industries. Also, the study shows a positive relationship of innovativeness with the flexibility of organizational structure and risk taking of top management. In this regard, the study implies that an innovative culture in the service sector can be developed by maintaining flexibility in the organizational structure and promoting risk taking of top management.

Several contributions to various research streams are noteworthy: First, our findings accentuate the importance of a more structural approach to the study of the effect of hotel innovation and its drivers on business performance including organizational structure and the support of top managers. Next, empirical findings confirm innovativeness as an important element of hotel performance. This infers that innovative activities are generally important to the success of the hotels. The findings show that continuous innovation has an impact upon financial measures and is critical for long-term profitability. These findings support previous

research (e.g., Cooper and Edgett, 1999; Griffin and Page, 1993; Ottenbacher, 2007; Tajeddini, 2009) which found that financial achievement is driven by innovativeness in the hotel industry. While our study supports a linear relationship between innovativeness and financial performance, Avlonitis et al, (2001) indicates an inverted U-shaped relationship, which suggests that the least and the most innovative financial companies perform less financially compared to moderately innovative financial companies. One possible reason for this difference is that the resource demands of innovation in hotel industry are less compared to that of the financial industry, i.e., the cost of innovation is far offset by its financial benefit in hotel industry. In addition, our findings suggest that organic and entrepreneurial oriented hotels tend to be more open to novel ideas and if possible put them into practice. These hotels usually not only act on new ideas but also smooth the circulation of information about them in the wider industry. This however does not work unless top management values these ideas and believe that they may eventually improve business performance in terms of financial indicators and marketing signs. Since innovation has been shown to be a key determinant to a firm's long-term financial performance and corporate well-being, we can conclude that organizational flexibility is one of the keys to build competences to success because of its strong effect on successful innovation.

Past research demonstrates that larger rivals are less likely to respond to marketing actions due to bureaucratic inflexibility or inertia (Tornatzky and Fleischer 1990). The profile of respondents in our study shows that the majority of the hotels (68.6%) are in the group of mid and small size categories with fewer administrative problems and higher flexibility. This flexibility represents the notion of organic organizational processes in the Japan hotel industry which helps them react to market signals with a customized and immediate response (cf. Achrol, 1991). Moreover, our results also indicate that managerial attitude toward change has a significant antecedent effect on innovativeness. Accordingly, hoteliers may leverage the advantages associated with an attitude toward change to strengthen their innovative

capabilities (Tajeddini, 2011). The findings are generally consistent with the work of Damanpour (1991) and Zhou et al. (2005), which indicate that managerial attitude to change is linked to the willingness to innovate.

Finally, this research has some limitations that offer an agenda for future research. For example, due to the small number of Japanese hotels surveyed we cannot be totally confident that our sample is representative for all classes of hotels. To establish external reliability, this initial work should be followed by a large-scale survey. Another limitation is the exclusive focus on hotels in the Japanese-specific cultural, economic and social situation. Consequently, it would be useful to take a similar approach in other countries, with different cultures and experiences, especially in developing countries, so that reliable comparisons can be made.

To conclude, although the type of innovation in the service sector differs from that in the manufacturing sector (Damanpour, 1996), it appears that innovativeness is similarly important to the success of the service sector, and that organizational flexibility and top management risk taking are common elements of innovativeness both in the manufacturing and service sectors. Scholars and practitioners pursuing innovation in the service sector can glean valuable insights by examining lessons from the manufacturing sector, such as those relating to the development a flexible organizational structure and promotion of top management risk taking. Nevertheless, further advances in this area will facilitate innovation in the service sector.

References

Achrol, R. S. (1991). "Evolution of the Marketing Organization: New Forms for Turbulent Environments." Journal of Marketing 55(October): 77-93.

Aiken, L. S., and West, S. G. (1991), *Multiple regression: Testing and interpreting interactions*. CA, Sage Publications.

Ahmed, P. K., 1998. Culture and climate for innovation. European Journal of Innovation Management, 1(1): 30 - 43.

Ambos, B., and Schlegelmilch, B. B. (2007), "Innovation and control in the Multinational firm: a comparison of political and contingency approaches", *Strategic Management Journal*, 28, 473–486.

- Avlonitis, G. J., Papastathopoulou, P.G., and Gounaris, S.P. (2001), "An empirically-based typology of product innovativeness for new financial services: Success and failure scenarios", *Journal of Product Innovation Management*, 18, 324-342.
- Bagozzi, R. P., and Yi, Y. (1988). "On the Evaluation of Structural Equation Models." Journal of the Academy of Marketing Science 16(1): 74-94.
- Bagozzi, R. P., Yi, Y., and Phillips, L. W. (1991). "Assessing construct validity in organizational research." Administrative Science Quarterly 36: 421-458.
- Brady, M. K. and Robertson, C. J. (1999). An exploratory study of service value in the USA and Ecuador. International Journal of Service Industry Management, 10(5), 469-486.
- Calantone, R., Garcia, R., and Dröge, C. (2003), "The Effects of Environmental Turbulence on New Product Development Strategy Planning", *The Journal of Product Innovation Management*, 20, 2, 90–103.
- Child, J., and Tse, D.K. (2001), "China's transition and its impact on international business", *Journal of International Business Studies*, 32, 1, 8–21.
- Cho, H.-J., and Pucik, V., 2005. Relationship between Innovativeness, Quality, Growth, Profitability, and Market Value. Strategic Management Journal, 26(6): 555-575.
- Churchill, G., A., Jr. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs", *Journal of Marketing Research*, 16, pp. 64-73.
- Clark, K.B. and Fujimoto, T. (1991), Product Development Performance: Strategy, Organization and Management in the Auto Industry, (Boston: Harvard Business Press,).
- Conant, J. S., Mokwa, M., and Varadarajan, P. R. (1990). "Strategic types, distinctive marketing competencies and organizational performance: a multiple measures-based study." Strategic Management Journal 11(5): 365-383.
- Tom Connor, T. (2007) "A consideration of strategic assets and the organizational sources of competitiveness", Strategic Change, 05/2007 Cooper, R. G., and Edgett, S. J. (1999), *Product development for the service sector*. Cambridge, MA, Perseus.
- Damanpour, F. (1991), "Organisational Innovation: A Meta-Analysis of Effects of Determinants and Moderators", Academy of Management Journal 34: 555-590.
- Damanpour, F. 1996. Organizational Complexity and Innovation: Developing and Testing Multiple Contingency Models. Management Science, 42(5): 693-716.
- de Brentani, U. (2001), "Innovative Versus Incremental New Business Services: Different Keys for Achieving Success", *Journal of Product Innovation Management*, 18, 3, 169-187.
- Drucker, P. (1985). Innovation and Entrepreneurship: Practice and Principles. New York: NY, Harper & Row.
- Dolfsma, W. (2004), "The process of new service development -issues of formalization and appropriability", *International Journal of Innovation Management*, 8, 3, 319-337.
- Erfurt-Cooper, P., and Cooper, M. (2009), *Health and Wellness Spa Tourism, Aspects of Tourism Series*. London, Channel View Press.
- Echols, A.E., and C.P. Neck, C.P., 1998. The Impact of Behaviours and Structure on Corporate Entrepreneurial Success. Journal of Managerial Psychology 13 (1/2), 38-46.
- Francois, J. a. R., K. (1996), "The Role of Services in the Structure of Production and Trade: Stylized Facts from a Cross-Country Analysis", *Asia-Pacific Economic Review*, 2, 1, 1-9.

- Galbraith, J. R. (1973). Designing Complex Organizations. Massachusetts, Addison-Wesley.
- Garrett, R.P., Covin, J.G., and Slevin, D.P. (2009), "Market responsiveness, top management risk taking, and the role of strategic learning as determinants of market pioneering", *Journal of Business Research*, 62, 8, 782-788.
- Gatignon, H. a. X., J-M. (1997), "Strategic Orientation of the Firm and New Product Performance", *Journal of Marketing Research*, 34, 77-90.
- Glazer, R. and A. M. Weiss (1993), "Marketing in Turbulent Environments: Decision Processes and the Time-Sensitivity of Information," Journal of Marketing Research, 30 (November), 509-521.
- Griffin, A., and Page, A. L. (1993), "An interim report on measuring product development success and failure", *Journal of Product Innovation Management*, 10, 3, 291-308.
- Hambrick, D., Mason, P. (1984). Upper echelons: the organization as a reflection of its top managers. Academy of Management Review, 9(2), 193-206
- Hair, J. F., Black, B., Babin, B., Anderson, R. E., and Tatham, R. L. (2005) Multivariate Data Analysis. Saddle River, NJ: Prentice Hall.
- Harrington, R. J. (2001), "Environmental uncertainty within the hospitality industry: exploring the measure of dynamism and complexity between restaurant segments", *Journal of Hospitality and Tourism Research*, 25, 4, 386-398.
- Hofstede, G. H. (1980), *Culture's Consequences, International Differences in Work-related Values*. Beverly Hills, CA, Sage Publications.
- Houston, M. B., Walker, B. A., Hutt, M. D., and Reingen, P. H., (2001), "Cross-unit competition for a market charter: the enduring influence of structure", *Journal of Marketing*, 65,2, 19-34.
- Hult, G. T. M., Hurley, R.F. and Knight, G.A. (2004). "Innovativeness: its antecedents and impact on business performance." Industrial Marketing Management 33: 429–438.
- Hult, G. T. M., Ketchen, D.J, and Arrfelt, M. (2007). "Strategic supply chain management: improving performance through a culture of competitiveness and knowledge development." Strategic Management Journal 28(10): 1035-1052.
- Hult, G. T. M., and Ketchen, D. J. (2001), "Does market orientation matter? A test of the relationship between positional advantage and performance", Strategic Management Journal, 22, 9, 899-906.
- Hult, G. T. M. K., D.G., and Slater, S.F. (2004). "Information processing, knowledge development and strategic supply chain performance." Academy of Management Journal 47(2): 241-253.
- Hurley, R. F., and Hult, G. T. M. (1998). "Innovation, Market Orientation, and Organisational Learning: An Integration and Empirical Examination." Journal of Marketing 62(7): 42-54.
- Husig, S., AND Mann, H.-G., (2010), "The role of promoters in effecting innovation in higher education institutions", *Innovation: Management, Policy and Practice*, 12, 2, 180–191.
- Japan Hotel Almanac (2009), Directory of Hotels in Japan, Almanac, Shinano, Japan,
- JETRO. 2007. Japan's Hotel Industry, Industrial Report. Tokyo: JETRO Japanese Market Report #75, Hotels (http://www.jetro.go.jp/en/market/reports/jmr/). Access date: 03.07. 2009
- JETRO. 2008. Japan's Hotel Industry, Industrial Report. Tokyo: JETRO Japanese Market Report #75, Hotels (http://www.jetro.go.jp/en/market/reports/jmr/). Access date: 03.07. 2009
- JETRO. 2009. Japan's Hotel Industry, Industrial Report. Tokyo: JETRO Japanese Market Report #75, Hotels (http://www.jetro.go.jp/en/market/reports/jmr/). Access date: 03.07. 2009

- Jogaratnam, G., and Ching-Yick Tse, E. (2006), "Entrepreneurial orientation and the structuring of organizations: performance evidence from the Asian hotel industry", *International Journal of Contemporary Hospitality Management*, 18, 6, 454-468.
- Kara, A., Spillan, J.E., and Deshields, O.W. Jr (2005). "The effect of market orientation on business performance: a study of small-sized service retailers using MARKOR scale." Journal of Small Business Management 43(2): 105-118.
- Keskin, H. 2006. Market orientation, learning orientation, and innovation capabilities in SMEs: An extended model. European Journal of Innovation Management, 9(4): 396–417.
- Khandwalla, P. N. (1977), The Design of Organizations. New York, Harcourt Brace Jovanovich Inc.
- Kleinknecht, A. (2000), *Indicators of manufacturing and service innovation: Their strengths and weaknesses. Innovation systems in the service economy.* J. S. Metcalf, and Miles, I., . Boston, Dordrecht, London, Kluwer Academic Publishers: 169-186.
- Kohli, A. K., and Jaworski, B. J., (1990), "Market Orientation: The Construct, Research Propositions, and Managerial Implications", *Journal of Marketing*, 54, 4, 1-18.
- Lau, C. M., and Woodman, R. W. (1995), "Understanding organizational change: A schematic perspective", *Academy of Management Journal*, 38, 537-554.
- Lawson, B., and Samson, D. (2001), "Developing innovation capability in organizations: A dynamic capabilities approach", *International Journal of Innovation Management*, 5, 3 1–23.
- Lee, T.-S. and Tsai, H.-J., (2005) "The effects of business operation mode on market orientation, learning orientation and innovativeness", Industrial Management & Data Systems, 105 3,325 348
- Lonial, S. C., Tarim, M., Tatoglu, E. Zaim, S., and Zaim, H. (2008), "The impact of market orientation on NSD and financial performance of hospital industry", *Industrial Management and Data Systems*, 108,6, 794-811.
- Lyon, D. W., Lumpkin, G. T., & Dess, G. (2000). Enhancing entrepreneurial orientation research: Operationalizing and measuring a key strategic decision making process. *Journal of Management*, 26, (5): 1055-1085
- Manu, F. A., and Sriram, V. (1996), "Innovation, marketing strategy, environment, and performance", *Journal of Business Research*, 35, 79-91.
- Martin, C.R., and Horne, D.A. (1993), "Services Innovation: Successful versus Unsuccessful Firms", *International Journal of Service Industry Management*, 4, 1. 49-65.
- Matsuno, K., Mentzer, J. T. & Özsomer, A. (2002). "The Effects of Entrepreneurial Proclivity and Market Orientation on Business Performance." Journal of Marketing 66(3): 18-32.
- Matsuo, M. (2006), "Customer orientation, conflict, and innovativeness in Japanese sales departments", *Journal of Business Research*, 59, 242 250.
- Miles, R. E., and Snow, C.C., (1978), *Organizational Strategy, Structure, and Process*. New York, NY., West.
- Miller, D., Dröge, C. and Toulouse, J. M. (1988), 'Strategic Process and Content as Mediators Between Organizational Context and Structure', Academy of Management Journal, 31(3), 544-569.
- Mintzberg, H. (1973). The Nature of Managerial Work. New York, Harper & Row.
- Mitchell, V.W. and Boustani, P. (1993): "Market development using new products and new customers: a role for perceived risk", European journal of marketing, 27, 2, 18-33

Moorman, C., and Miner, A. S. (1997), "The impact of organisational memory on new product performance and creativity", *Journal of Marketing Research*, XXXIV, 91-106.

Nilsson, D. (2007). A cross-cultural comparison of self-service technology use. European Journal of Marketing, 41, 367-381

Nunnally, J. (1988). Psychometric Theory. New York, NY, McGraw-Hill.

Orfila-Sintesb, F., and Mattssona, J. (2009), "Innovation behavior in the hotel industry", *Omega*, 37, 380-394.

Ottenbacher, M., and Gnoth, J., (2005), "How to develop successful hospitality innovation", *Cornell Hotel and Restaurant Administration Quarterly*, 46, 2, 205-222.

Ottenbacher, M. C. (2007), "Innovation management in the hospitality industry: different strategies for achieving success", *Journal of Hospitality and Tourism Research*, 31,. 4, 431-454.

Palmer, A. (2001). Principles of Services Marketing. Maidenhead, McGraw-Hill.

Parasuraman, A., Zeithaml, V. and Berry, L. (1988), "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality", *Journal of Retailing*, 64,12-40.

Parnell, J. A., Lester, D. L. Menefee, M.L. (2000), "Strategy as a response to organizational uncertainty: an alternative perspective on the strategy-performance relationship", *Management Decision*, 38,8, 20-530.

Scott, S. G., & Bruce, R. A. (1994). Determinates of innovative behavior: A path model of individual innovation in the workplace. Academy of Management Journal, 137, 580-607.

Shilling, M. A. (2010). Strategic Management of Technological Innovation. NY, Mc Graw Hill.

Schumpeter, J. 1949. Economic Theory and Entrepreneurial History, Change and the Entrepreneur, pp. 63-84, reprinted in Schumpeter, J. (1989) Essays on Entrepreneurs, Innovations, Business Cycles and the Evolution of Capitalism, edited by Richard V. Clemence, New Brunswick, N.J.: Transaction Publishers, pp. 253-231.

Sinkovics, R. R., and Roath, A.S. (2004), "Strategic orientation capabilities and performance in manufacturer-3PL relationships", *Journal of Business Logistics*, 25, 2, 43-64.

Song, M., van der Bij, H. and Weggeman, M. (2006), "Factors for improving the level of knowledge generation in new product development", *R&D Management*, 36, 2, 173-187.

Stampfl, R. W. (1978) Structural constraints, consumerism, and the marketing concept, MSU Business Topics, 26(3), pp. 5-16.

Sundbo, J. (1997), "Management of innovation in services", *The Service Industries Journal*, 17, 3, 432-455.

Tajeddini, K. (2009). "Perceptions of learning among Swiss watch managers", *Journal of Workplace Learning*, 21, 7, 525-537.

Tajeddini, K., and Mueller, S., (2009), "Entrepreneurial characteristics in Switzerland and the UK: A comparative study of techno-entrepreneurs", *Journal of International Entrepreneurship*,7,1,1-25.

Tajeddini, K., and Mueller, S., (2012), "Corporate Entrepreneurship in Switzerland: Evidence from a Case Study of Swiss Watch Manufacturers", *International Entrepreneurship and Management Journal*.

Tajeddini, K., and Trueman, M. (2008), "Effect of customer orientation and innovativeness on business performance: a study of small-sized service retailers", *International Journal of Entrepreneurship and Small Business*, 6, 2, 280 - 295.

Tajeddini, K. (2010). "Effect of customer orientation and entrepreneurial orientation on innovativeness: evidence from the hotel industry in Switzerland." Tourism Management 31: 221-231

Tajeddini, K. (2011). "Customer Orientation, Learning Orientation, and New Service Development: An Empirical Investigation of Swiss Hotel Industry." Journal of Hospitality & Tourism Research 35(4): 437 - 468

Takeuchi, K. (2010). "Overview of the Japan Hotel Market." NLI Research Institute May: 1-13.

Thompson, J. D. (1967), Organizations in action. New York, McGraw-Hill.

Tornatzky, L. G., and Fleischer, M. (1990), *The Process of Technological Innovation*. Lexington, MA, Lexington Books.

Venkatraman, N. (1989). "Strategic orientation of business enterprises: the construct, dimensionality, and measurement." Management Science 35(8): 42-62.

Zachary, G.P. (2008), "The Risk of Innovation: Will Anyone Embrace it?", *The New York Times* http://www.nytimes.com/2008/01/20/business/20ping.html

Zhou, K., Z., Gao, G.Y., Yang, Z., and Zhou, N., (2005), "Developing strategic orientation in China: antecedents and consequences of market and innovation orientations", *Journal of Business Research*, 58, 1049-1058.

Zolfagharian, M., and Paswan, A. (2008), "Do consumers discern innovations in service elements?", *Journal of Services Marketing*, 22, 5, pp. 338-352.

Table I: Profile of respondents (Demographic Variables) (n=115)

Characteristics	Percent %	Frequency	Characteristics	Percent %	Frequency
Sex			Title of respondent		
Male	79.1	91	General manager	38	33.0
Female	20.9	24	Resident manager	28	24.3
Employee members			Director/controller	15	13.0
<20	13.9	16	Functional manager	34	29.6
20-40	24.3	28	Years in present position		
41-61	30.4	35	3 years or less	39	33.9
>61	31.3	36	4 but less than 7 years	24	20.9
Star classification			8 but less than 15 years	22	19.1
One star	27.8	32	More than 16 years	30	26.1

Table II: Measurement model and Confirmatory Factor Analysis, Reliability Analysis for Multi-item Scales

Item	Reliability	Item-to-	Alpha if	Factor	Composite	Average
	coefficients	item	item is	loading	reliability	variance
		correlation	deleted			extracted
Top Management Risk Taking (N of items=4)	α=.86				.90	.71
We consistently accept higher financial risks in order to obtain higher rewards.		.528	.899	.467 ^a		
We accept occasional new product failures as being normal.		.818	.800	.771		
We encourage the development of innovative marketing strategies, knowing some will fail.		.749	.822	.853		
We bold wide ranging acts are common place.		.822	.786	.990		
Organization structure (N of items=5)	α=.74				.87	.68
Our hotel favors open channels of communication.		.626	.661	.623ª		
We use diversity in manager operating styles.		.529	.691	.503		
The expert has the most say in decision making.		.627	.652	.839		
We emphasis on adapting to changing circumstances.		.620	.651	.810		
We emphasis on getting things done.		.203	.807	.195		
Fit statistics: χ2=30.541; df=23; χ2/df: 1.328; CFI= .984; GFI=.947;IFI=.984; RMSEA=.054; RMR=.021						
^a Loading fixed to 1 for identification purposes.						
Q= .05						
Innovativeness (N of items=5)	α=.74				.83	.58
We actively seek innovative ideas.		.595	.662	.670°		
In our hotel, people are penalized for new ideas that don't work.(R)		.730	.619	.937		
In our hotel, when an innovation is perceived as too risky, it is resisted. (R)		.374	.772	.438		
In our hotel, there is a strong emphasis on the development of tried and true services.		.521	.693	.581		
Innovation in our hotel is encouraged.		.403	.732	.503		
Performance (N of items=3)	α=.91				.95	.87
Profit goals of new service have been achieved		.722	.992	.728 ^a		
Sales goals of new service have been achieved.		.900	.834	.991		
ROI goals of new service have been achieved.		.910	.822	.994		

R: Revers score Q= .74

Fit statistics: χ 2=33.004; df=23; χ 2/df: 1.737; CFI= .981; GFI=.939;IFI=.981; RMSEA=.080; RMR=.020

^aLoading fixed to 1 for identification purposes.

Table III: Multiple Regressions of Innovativeness and Performance

Independent Variables	Dependent variables				
	Innovativeness	Profit achievement	Sales achievement	ROI achievement	
Innovativeness		.587***	.776***	.737***	
Organizational structure	.221**	.125n.s	.01ns	.064n.s	
-	t-value= 3.265				
Top Management Risk Taking	.650***	008n.s	.082n.s	.053n.s	
	t-value=9.617				
F	94.577	29.507	73.664	69.886	
R2	.622	.437	.660	.648	
Adjusted R2	.615	.422	.651	.639	