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Promoting Innovation in Hospitality Companies through Human Resource Management Practices

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Promoting Innovation in Hospitality Companies through Human Resource

Management Practices

Abstract

In this study, we investigate how hospitality companies can promote incremental and radical innovation through human resource management practices (i.e., selection and training). Data from 196 independent hotels and restaurants operating in the People's Republic of China show that hiring multi-skilled core customer-contact employees and training core customer-contact employees for multiple skills both have a significant and positive effect on incremental and radical innovation among hotel and restaurant companies. The two human resource management practices are also found to have a negative joint impact on incremental but not radical innovation. The implications for promoting innovation in hospitality companies are discussed.

Keywords: incremental innovation, radical innovation, staffing, training, human resource management practices

1. Introduction

Innovation is at the heart of hospitality organizations' success because it allows them to improve the quality of products, increase efficiency, cut costs, meet the changing needs of customers, increase sales and profits, gain a greater market share and differentiate themselves from competitors (e.g., Jones, 1996; Ottenbacher and Gnoth, 2005). However, hospitality innovation is an understudied area (Chan, Go and Pine, 1998; Rodgers, 2007). Ottenbacher and Gnoth (2005) suggested that due to the lack of such knowledge, "managers often rely on gut feeling, speculation, and their own limited experience about the keys to innovation success" (p. 206). To address this issue, we examine hospitality innovation through the lens of human resource management (HRM) practices.

We focus on incremental and radical innovation, because "radical and incremental describe different types of technological process innovation. Radical innovations are *fundamental changes* that represent revolutionary changes in technology [whereas] incremental innovations are *minor improvements or simple adjustments* in current technology" (Dewar and Dutton, 1986, pp. 1422-1423, emphases added). The two types of innovation have different antecedents and different impacts on organizational outcomes (e.g., Damanpour, 1991; Ettlie, Bridges and O'Keefe, 1984; Jansen, Van Den Bosch and Volberda, 2006; Tushman and

Anderson, 1986). Organizations are advised to promote both types of innovation to achieve superior market performance (Damanpour, 1991).

We investigate HRM practices as antecedents of incremental and radical innovation in hospitality companies. Because of the intangible nature of services, innovation success in the hospitality industry largely depends on the attitudes and skills of employees. Ottenbacher and Harrington (2007) suggested that employees play a key role in fine dining innovation because of the simultaneity of production and consumption and the importance of human factors in service delivery. Ottenbacher (2007) also stated that “hospitality innovation success is strongly related to excellent HRM practices” (p. 446). However, while there is wide agreement on the importance of HRM practices, little empirical research has been conducted of the effects of HRM practices on hospitality innovation.

We focus on two specific HRM practices (i.e., selection and training) because they are vital in the hospitality industry, which is characterized by low skill levels among employees and a high turnover rate (Hjalager, 2002; Yang and Wan, 2004). Effective selection management and training are two solutions to these problems. “Hire for attitude and train for skill” is presently the guiding philosophy of hospitality employee management (e.g., Bobinski, 2005; Carbonara, 2004). Such a philosophy, however, has yet to be assessed with academic rigor (Tracey, Sturman, and Tews,

2007).

This study contributes to the hospitality innovation literature in three ways. First, it represents an initial effort to simultaneously consider incremental and radical innovation in the hospitality sector. Second, we investigate the role of HRM practices in promoting incremental and radical innovation in this sector. Third, we study the joint impact of HRM practices on innovation among hospitality companies. The findings have practical implications for leveraging HRM practices to achieve superior innovative performance.

2. Previous Research on Hospitality Innovation

There are three streams of hospitality innovation research. The first identifies critical procedures for developing hospitality innovation (e.g., Jones, 1996; Ottenbacher and Harrington, 2007, 2009), the second focuses on developing a typology for hospitality innovation (e.g., Chan *et al.*, 1998; Orfila-Sintes and Mattsson, 2009; Ottenbacher, 2007; Victorino, Verma, Plaschka and Dev, 2005), and the third investigates factors that may enhance hospitality innovation (e.g., Hjalager, 2002; Ottenbacher and Gnoth, 2005; Ottenbacher, 2007). One common thread among these lines of inquiry is that, to some extent, they focus on the importance of HRM practices to hospitality innovation. For instance, in the first stream, various

researchers have discussed how employees make a difference in the steps that lead to hospitality innovation. Jones (1996) found that many firms that were increasingly developing innovation did not have a formal R&D department; instead, they depended on creative personnel and developed an organizational culture that encouraged new idea formulation. Moosa and Panurach (2008) differentiated centralized and decentralized innovation. The former type of innovation is usually generated by the marketing or R&D department while the latter one is generated by front-line employees. They posited that the former type of innovation is “insufficient because centralized innovation will always be limited by the available talent, attention, insights and instincts of the managing group” (Moosa and Panurach, 2008, p. 4). They thus suggested that organizations need to foster decentralized innovation because “front-line employees, those closest to the customers and the work of delivering products and services, have some of the freshest ideas and thoughts” (Moosa and Panurach, 2008, p. 6). Similarly, Ottenbacher and Harrington (2007) stressed the importance of human factors in hospitality innovation, stating that “because of the simultaneity of production and consumption and the importance of human factors in service delivery, employees play a more important role in fine dining innovation than in other product innovation situations” (p. 494).

Furthermore, the research into factors that may enhance hospitality innovation

also has shown that hospitality executives perceive various HRM practices (e.g., employee training and empowerment) and employee attitudes (e.g., employee commitment) to be vital to the success of new project development of hospitality companies (Ottenbacher and Gnoth, 2005; Ottenbacher, Gnoth, and Jones, 2006).

The current literature on hospitality innovation, however, has a number of major limitations. First, it has yet to address the conceptual and empirical differences between two types of innovation (i.e., incremental and radical innovation). Second, although there is some support for the importance of HRM in promoting hospitality innovation, as mentioned above, rigorous and systematic investigation is lacking. In this study, we address these research gaps and investigate the role HRM practices (i.e., selection and training) on promoting both incremental and radical hospitality innovation.

3. Hypothesis Development: Effects of Selection and Training Practices on Hospitality Innovation

We posit first that training core customer-contact employees for multiple skills is a key approach to hospitality innovation success. Because of the intangible nature of services, customer service skills largely determine the quality of employee-customer interactions. The “moment of truth”, or the interaction between

customers and service employees, marks tremendous differences in service quality and innovation across hotels. Management research has shown that the knowledge base of employees is a crucial predictor of innovativeness (Damanpour, 1991; Dewar and Dutton, 1986), and that training not only broadens the repertoire of knowledge and skills of employees but also boosts their intrinsic motivation (Bandura, 1986; Deci and Ryan, 1985). Intrinsic motivation, defined as the motivation that comes from inside an individual rather than any external or outside rewards such as money or grades (Deci and Ryan, 1985), is an important predictor of employee creativity and innovative performance (Amabile, 1983; Shin and Zhou, 2003).

Within the hospitality context, Ottenbacher (2007) argued that training is one of the factors underlying hospitality innovation success in the employee-customer dimension; Tracey and Tews (2004) found that a company's training climate predicted the service capabilities of its frontline employees; and Roehl and Swerdlow (1999) found that training could indirectly lead to greater organizational commitment among hospitality employees. Although Tracey and Tews (2004) and Roehl and Swerdlow (1999) did not specifically focus on innovation, their findings suggest that training might enhance hospitality innovation because of the increased level of capabilities (Dewar and Dutton, 1986) and positive affective states (De Dreu, Baas and Nijstad, 2008) of employees.

Moreover, research has suggested that many hospitality innovation ideas are indeed generated by core customer-contact employees (e.g., Friedman, 2001; Jones, 1996; Ottenbacher, 2007; Ottenbacher and Harrington, 2009; Ottenbacher et al., 2006). Besides, these employees are often responsible for the screening and testing of new ideas in the hospitality sector (Jones, 1996; Ottenbacher and Harrington, 2007, 2009). Therefore, it is necessary to equip such employees with multiple skills to boost both their creativity and the ability to evaluate the potential effectiveness of various ideas.

In sum, training leads to not only the transfer of knowledge and enhanced employee capabilities (e.g., Tracey and Tews, 2004) but also positive attitudes toward training and the company (Rodriguez and Gregory, 2005; Roehl and Swerdlow, 1999), intrinsic motivation (Amabile, 1983; Shin and Zhou, 2003), and the ability to screen and test better ideas (Jones, 1996; Ottenbacher and Harrington, 2007, 2009). Therefore, we expect that training core customer-contact employees for multiple skills can enhance both incremental and radical innovation among hospitality firms.

Hypothesis 1: Training core customer-contact employees for multiple skills has a positive impact on A) incremental and B) radical innovation among firms.

Management researchers have examined how selective hiring may enhance innovation. For instance, Mumford (2000) argued that innovation is based on the ability of employees to generate new ideas and that ability influences creative

problem solving. Specifically, such ability promotes the rapid acquisition of new knowledge, the use of systematic solutions to solve novel problems and the transfer of knowledge to new applications. He stated that “innovation ... is more likely to occur when expertise is evident across a number of relevant areas” (Mumford, 2000, p. 321). Hiring employees who have multiple skills thus enhance innovation because these employees are more likely to possess such expertise across a number of relevant areas.

Although no study has directly investigated the effect of hiring employees with multiple skills on firm innovation in the hospitality sector, it is reasonable to expect that hiring such employees would enhance innovation for three reasons. First, the argument of Mumford (2000) applies to the hospitality sector. Selective hiring ensures that those selected have job-relevant knowledge, skills and talents, which are necessary for creative innovative performance (Mumford, 2000). Second, selective hiring enhances the person-organization fit in terms of values, goals and personalities (Kristof, 1996) and such alignment is essential in the hospitality industry (e.g., Chiang and Birch, in press; Feng and Pearson, 1999; Tepeci and Bartlett, 2002). Finally, because of the great number of tacit skills required in hospitality jobs (e.g., tactfulness for those working in customer service positions), the necessary skills might be costly to acquire through either training or a learning-by-doing process. For instance, Michelin-starred chefs need to have sufficient experiences on creating new food items

to combine food ingredients and generate new ideas (Ottenbacher and Harrington, 2007). As a result, instead of waiting for employees to accumulate such tacit skills, hospitality firms can attract and hire skillful applicants. This kind of growth and innovation strategy requires a rigorous recruitment policy and process, and is likely to enhance firm innovation (e.g., Mumford, 2000).

Hypothesis 2: Hiring core customer-contact employees with multiple skills has a positive impact on A) incremental and B) radical innovation among firms.

There are two views of the interactive impact of the two HRM practices on firm innovation. On the one hand, previous research has suggested that a positive synergetic effect exists among HRM practices (e.g., Combs, Liu, Hall and Ketchen, 2006; Shipton, West, Dawson, Birdi and Patterson, 2006). The argument is that HRM practices may mutually reinforce each other, generating a synergetic effect (Combs et al., 2006). On the other hand, Laursen and Foss (2003) suggested that HRM practices could be seen as substitutes rather than complements. Specifically, both training core customer-contact employees for multiple skills and hiring multi-skilled core customer-contact employees represent significant organizational investments. In the present study, as both HRM practices work toward a common goal (i.e., to increase the skill level of employees), they may substitute for each other in terms of the substantial cost incurred (Laursen and Foss, 2003). Therefore, we expect a negative

interactive rather than a complementary joint impact of the two HRM practices on firm innovation.

Hypothesis 3: Hiring core customer-contact employees with multiple skills together with training core customer-contact employees for multiple skills has a negative interaction effect on firm A) incremental and B) radical innovation. The positive impact of hiring core customer-contact employees with multiple skills on incremental and radical innovation among firms is greater when the level of training of core customer-contact employees in multiple skills is low.

4. Methods

4.1. Sample and procedure

The data were collected from 196 independent hotels and restaurants operating in Shenzhen, People's Republic of China. These hotels and restaurants were randomly selected by employees of a large consulting company that provides human resource-related services (e.g., payroll, recruitment and selection, training and development). The employees of the consulting firm contacted senior HR managers from various independent hotels and restaurants to seek their participation into the study. The employees of the consulting firm delivered a cover letter written by the research team that explained the scope of the study to these senior HR managers. The

letter also assured these managers of voluntary participation and strict anonymity.

Among the participating companies, the mean firm size was 242 employees (SD = 396.50) and the mean firm age was 8.801 years (SD = 5.387). The mean number of employees was a bit high because of a few outliers in the dataset (i.e., 5 firms with more than 1000 employees)¹. The median number of employees was 150. A further breakdown of our sample suggested that 70 firms (35.7%) were with less than 100 employees, 67 firms (34.2%) had employees between 100 and 199, 54 firms (27.6%) had employees between 200 and 999, and 5 firms (2.5%) had more than 1000 employees. Thus our sample covered small, medium, and large firms.

Senior HR managers from each firm were asked to provide responses to a list of survey questions. They were presented with a definition of core customer-contact employees (i.e., “employees that are critical to your firm’s customer service”) at the beginning of the survey and asked to rate the two HRM practices (i.e., selection and training) that are specifically related to those employees. We focused on core customer-contact employees because it has been found that HRM practices typically vary across employee groups within a firm (e.g., Lepak and Snell, 1999), especially between core employees and flexible workers in the hospitality sector (e.g., Deery and

¹ We performed analyses both with and without these five large firms. Results were essentially the same across the two analyses.

Jago, 2002). By narrowing our focus, we could reduce the measurement error regarding the use of HRM practices.

4.2. Measures

The hiring of multi-skilled core customer-contact employees was measured with three items and the training of core customer-contact employees in multiple skills was measured with four items, both of which were developed by the authors. These items were presented in the Appendix 1. An exploratory factor analysis of the seven items with principal axis factoring rotation method showed that two factors emerged with eigenvalues being greater than 1 (i.e., 2.509 and 1.050). All of the items loaded meaningfully (i.e., load greater than .40) on the corresponding latent factor and there was no cross loading. The two factors together accounted for 50.831% of the total variance.

Both incremental and radical innovation were measured with items developed by Subramaniam and Youndt (2005) (see Appendix 1). All of the HRM and innovation items were rated using a five-point Likert-type scale. Finally, we included a number of control variables. We measured firm size (the log 10 transformation of the total number of employees), firm age (the number of years that a firm has operated) and firm type (0 = restaurant, 1 = hotel).

5. Results

5.1. Descriptive statistics

Table 1 presents means, standard deviations, and minimum and maximum values of the study variables. Table 2 presents the correlations among these variables. Table 2 shows that training core customer-contact employees for multiple skills was positively related to both incremental ($r = .420, p < .01$) and radical innovation ($r = .390, p < .01$) among firms, as was hiring multi-skilled core customer-contact employees ($r = .514, p < .01; r = .560, p < .01$, respectively). It is noteworthy that firm size appeared to be an important predictor of radical but not incremental innovation ($r = .150, p < .05; r = .037, n.s.$, respectively), which suggests that radical innovation is more likely to take place in larger companies.

5.2. Hypothesis testing results

Table 3 summarizes the multiple regression results. In the table, Model 2 shows that both hiring multi-skilled core customer-contact employees and training core customer-contact employees for multiple skills were significant predictors of incremental innovation among firms ($\beta = .259, p < .01; \beta = .416, p < .01$, respectively). Thus, Hypotheses 1A and 2A were supported. Model 5 shows that the two practices were also significant predictors of radical innovation among firms ($\beta = .223, p < .01; \beta = .429, p < .01$, respectively). Thus, Hypotheses 1B and 2B were also supported.

In Model 3, the interaction term between training core customer-contact employees for multiple skills and hiring multi-skilled core customer-contact employees was negatively and marginally significant associated with incremental innovation ($\beta = -.103, p < .10$). The results suggest that using both approaches might negatively affect the firm as it may not be able to achieve the maximum pay-off. Hypothesis 3A was thus marginally supported. Model 6 shows that the interaction term between the two practices was negatively but not significantly associated with radical innovation ($\beta = -.029, n.s.$). Hence, Hypothesis 3B was not supported.

Insert Tables 1 - 3 about here

5.3. Supplementary analysis results

The results in Table 3 suggest that hiring multi-skilled core customer-contact employees might have a stronger impact on both incremental and radical innovation among firms than training core customer-contact employees for multiple skills. To provide a definite test regarding the magnitudes of the effects, we performed a regression analysis using STATA 8.0 and utilized the “test” option provided in STATA (StataCorp. 2003). The test revealed that the impact of hiring multi-skilled core customer-contact employees and that of training core customer-contact

employees for multi-skills on radical innovation was significantly different from zero ($F[1, 186] = 4.80, p < .05$), with the former impact being stronger ($\beta = .429, p < .01$ versus $\beta = .223, p < .01$). Although hiring multi-skilled core customer-contact employees had a relatively larger impact on incremental innovation than had training core customer-contact employees for multi-skills ($\beta = .416, p < .01$ versus $\beta = .259, p < .01$), the difference was not statistically significant ($F[1, 186] = 2.17, n.s.$).

5.4 Qualitative examples of hospitality innovation²

In order to understand more on specific examples of incremental and radical innovation posited by customer-contact employees, we conducted a small-scale post-hoc qualitative analysis. We interviewed ten respondents and all of them are full-time customer-contact staff in hospitality firms. Specifically, we first gave respondents definitions of incremental and radical innovation and asked them to quote daily life examples of both types of innovation posited by customer-contact employees at their firms. In general, respondents are more likely to quote incremental innovations than radical innovations. Furthermore, while customer service employees are directly involving in generation, testing and implementation new incremental innovation, they are also responsible for gathering information and suggesting solutions to top management on radical innovation. In term of the specific examples,

² We thank one anonymous reviewer for this suggestion.

incremental innovation usually focused on changes in administrative work and minor customer services practices, while radical innovation involved major changes in customer service policy and information system. Table 4 illustrates some of the examples discussed by our respondents.

6. Discussion

6.1. Theoretical contributions and practical implications

The core contribution of this study is the finding of the link between the HRM practices of hospitality firms and firm innovation. Studies of hospitality innovation, especially radical innovation, are few (Chan et al., 1998; Rodgers, 2007); those that investigate the impact of HRM practices on hospitality incremental and radical innovation are even fewer. We found that two major HRM practices, hiring multi-skilled core customer-contact employees and training core customer-contact employees for multiple skills, enhanced both incremental and radical innovation among hospitality firms. Although “hire for attitude and train for skill” has long been a popular people management philosophy, we argue that to enhance hospitality innovation, a better strategy might be “hire for skill and train for skill.” The finding indeed echoed Tracey et al.’s (2007) conclusion that both general mental ability and conscientiousness are important predictors of front line restaurant employees’ job performance and thus a strict adherence to the “hire for attitude and train for skill” is

not advisable. Our supplementary analysis revealed that “hire for skill” might be even more important than “train for skill” in terms of promoting incremental and radical innovation (especially radical innovation) among hospitality companies.

In addition, we found that the two HRM practices had a negative joint impact on incremental but not radical innovation. This might be because incremental innovation may require less expertise on the part of hospitality employees, and thus the huge investment in hiring and training high-quality employees might not entirely pay off, especially when the company uses both approaches. However, radical innovation may require more expertise and thus the two HRM practices may be both useful, although we find no positive synergetic effect. In sum, if the ultimate goal of a hospitality firm is to promote radical innovation, then using both hiring multi-skilled core customer-contact employees and training core customer-contact employees for multiple skills is suggested. If, however, the ultimate goal is to promote incremental innovation, then the hospitality firm should consider the negative interaction between the two HRM approaches and choose a combination wisely (e.g., greater focus on training core customer-contact employees for multiple skills and less focus on hiring multi-skilled core contact employees, or vice versa).

It is also interesting to note that some hospitality companies still take the traditional approach to manage employees (i.e., treat employees as a cost rather than

asset) and provide only limited training. For instance, Abeysekera (2006) found that in a small privately owned hotel group, managers did not take a proactive role in providing training to employees. Although the study did not investigate the impact of such a human capital management practice on organizational outcomes, based on the current findings, it can be expected that the company may suffer from such a people management philosophy and practice in terms of the generation of critical hospitality innovation.

6.2. Limitations and future research directions

A major limitation of the study is its cross-sectional design – so reverse causality cannot be ruled out. Thus, a future longitudinal study could cross validate the current findings and provide additional support regarding the causality of the HRM practice-innovation link.

A second limitation is the scope of the study: although we found that HRM practices were viable tools for promoting incremental and radical innovation among hospitality firms, we did not look at the effects of such innovation on firm outcomes such as financial performance. Future studies could continue to explore the implications of incremental and radical innovation in the hospitality context, especially its main and boundary impacts on the long-term financial performance of hospitality firms.

On a related note, we did not study a comprehensive model of how to promote hospitality incremental and radical innovation. For instance, organization-wide mechanisms such as strategy or culture also promote innovation³. In fact, organizations may use both centralized and decentralized approaches to fostering innovation (Moosa and Panurach, 2008). There is no doubt that front-line employees can be a major source of innovation. The concern is to what extent the creative and innovative ideas posited by these capable customer-contact employees can actually reach managers and the managers then implement these ideas. For instance, Hyatt hotels hold “Hyatt-talk”s on a regular basis of every two weeks for top managers to meet those front-line employees discussing current concerns and problems the hotels are facing and employee suggestions to these concerns. Some of these suggestions thus translate into firm innovation. Although we believe that HR practices represent one of such organization-wide mechanisms, our study is limited in our scope in overlooking other potential mechanisms such company culture and strategy. We thus call for more future studies regarding how to promote hospitality innovation using other organization-wide mechanisms.

Finally, we tested the idea using a sample of Chinese hotels and restaurants. In general, corporate culture tends to be a more prominent predictor of innovation than

³ We thank one anonymous reviewer for this comment.

country culture (Tellis, Prabhu, and Chandy, 2009). However, some other studies did report that national cultural values might play a role in affecting firm innovation (see Hayton, George, and Zahra, 2002, for a review). Quinn and Rivoli (1991) found that Japanese firms mainly adopted the gain-sharing people management practice that fostered innovation; in contrast, American firms mainly used the fixed-wage compensation system that contained anti-innovative incentives. Thus, although the Chinese context represents an interesting context for hospitality researchers to understand (e.g., Xu, Ding, and Packer, 2008), the generalisability of our findings to other countries may warrant caution and we call for more studies in this line of research.⁴

6.3. Concluding remarks

The current study provides conceptual and empirical evidence that indicates that hospitality companies should adopt a “hire for skill and train for skill” approach to achieve ambidexterity and obtain superior innovative and market performance. The findings provide clear practical guidance to hospitality managers, so that they do not need to “rely on gut feeling, speculation, and their own limited experience about the keys to innovation success” (Ottenbacher and Gnoth, 2005, p. 206).

⁴ We thank one anonymous reviewer for this comment.

Reference

Abeyssekera, I., 2006. Managing human capital in a privately owned public hotel chain. *International Journal of Hospitality Management* 25, 586-601.

Amabile, T. M., 1983. *The social psychology of creativity*. Springer-Verlag: New York.

Bandura, A., 1986. *Social foundations of thought and action: A social cognitive*. Englewood Cliffs, Prentice Hall: New Jersey.

Bobinski, D., 2005. Hire for attitude- train for skill. *Management issue*.
http://www.management-issues.com/display_page.asp?section=opinion&id=1968

Carbonara, P. 1996. Hire for attitude, train for skill. *Fast Company* 4:73-81.

Chan, A., Go., F.M., Pine, R., 1998. Service innovation in Hong Kong: Attitudes and practice. *The Service Industries Journal* 18, 112-124.

Chiang, F.T, Birtch, T.A. Pay for performance and work attitudes: The mediating role of employee–organization service value congruence, *International Journal of Hospitality Management*, In press.

Combs, J.G, Liu, Y. Hall, A.T., Ketchen, D.J., 2006. How much do high performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology* 59: 501-528.

Damanpour, F., 1991. Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal* 34, 555-590.

De Dreu, C. K. W., Baas, M., Nijstad, B. A., 2008. Hedonic tone and activation in the mood-creativity link: Towards a dual pathway to creativity model. *Journal of Personality and Social Psychology* 94, 739-756.

Deci, E. L., Ryan, R. M., 1985. *Intrinsic motivation and self-determinaton in human behaviour* Pienum: New York.

Deery, M., & Jago, L., 2002. The core and the periphery: An examination of the flexible workforce model in the hotel industry, *International Journal of Hospitality Management* 21, 339-351.

Dewar, R.D, Dutton, J.E., 1986. The adoption of radical and incremental innovations: An empirical analysis. *Management Science* 32, 1422-1433.

Ettlie, J.E., Bridges, W.P., O'Keefe, R.D., 1984. Organization strategy and structural differences for radical versus incremental innovation. *Management Science* 30, 682-695.

Feng, F., Pearson, T., 1999. Hotel expatriate managers in China: Selection criteria, important skills and knowledge, repatriation concerns, and causes of failure. *International Journal of Hospitality Management* 18, 309–320.

Friedman, V.J., 2001. The individual as agent of organizational learning. *California Management Review* 44, 70-89.

Hayton, J.C., George, G., Zahra, 2002. National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship: Theory and Practice* 26, 33-52.

Hjalager, A.M., 2002. Repairing innovation defectiveness in tourism. *Tourism Management* 23, 465-474.

Jansen, J.J.P., Van Den Bosch, F.A.J. & Volberda, H.W., 2006. Exploratory innovation, exploitative innovation, and performance effects of organizational antecedents and environmental moderators. *Management Science* 52, 1661-1674.

Jones, P., 1996. Managing hospitality innovation. *Cornell Hotel and Restaurant Administration Quarterly* 37, 86-95.

Kristof, A.L., 1996. Person-organization fit: An integrative review of its conceptualizations, measurement, and implications, *Personnel Psychology* 49, 1–49.

Laursen, K., Foss, N.J., 2003. New human resource management practices, complementarities and the impact on innovation performance. *Cambridge Journal of Economics* 27, 243-263.

Lepak, D.P., Snell, S.A., 1999. The human resource architecture: toward a theory of human capital allocation and development. *Academy of Management Review* 24, 31-48.

Moosa, N., Panurach, P., 2008. Encouraging front-line employees to rise to innovation challenge. *Strategy & Leadership* 36, 4, 4-9.

Mumford, M.D., 2000. Managing creative people: strategies and tactics for innovation. *Human Resource Management Review* 10, 313-351.

Orfila-Sintes, F., Mattsson, J., 2009. Innovation behavior in the hotel industry. *Omega* 37, 380-394.

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

Ottenbacher, M., Gnoth, J., Jones, P., 2006. Identifying determinants of success in development of new high-contact services- Insights from the hospitality industry. *International Journal of Service Industry Management* 17, 344-363.

Ottenbacher, M., Harrington, R.J., 2007. The innovation development process of Michelin-starred chefs. *International Journal of Contemporary Hospitality Management* 19, 444-460.

Ottenbacher, M.C, Harrington, R.J., 2009. The product innovation process of quick-service restaurant chains. *International Journal of Contemporary Hospitality Management* 21, 523-541.

Ottenbacher, M.C., 2007. Innovation management in the hospitality industry: Different strategies for achieving success. *Journal of Hospitality & Tourism Research* 31, 431-454.

Rodgers, S., 2007. Innovation in food service technology and its strategic role. *International Journal of Hospitality Management* 26, 899-912.

Rodriguez, C.M., Gregory, S., 2005. Qualitative study of transfer of training of student employees in a service industry. *Journal of Hospitality & Tourism Research* 29, 42-66.

Roehl, W, Swerdlow, S., 1999. Training and its impact on organizational commitment among lodging employees. *Journal of Hospitality and Tourism Research* 23, 176-194.

Sipe, L.J., Testa, M. What is innovation in the hospitality and tourism marketplace? A suggested research framework and outputs typology. *Paper presented at International CHRIE Conference-Refereed Track, 2009.*

Shin, S., Zhou, J., 2003. Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of Management Journal* 46, 703-714.

- Shipton, H., West, M.A., Dawson, J., Birdi, K., Patterson, M., 2006. HRM as a predictor of innovation. *Human Resource Management Journal* 16, 3-27.
- StataCorp., 2003. *Stata Statistical Software: Release 8*. College Station, StataCorp LP: Texas.
- Subramaniam, M. & Youndt, M.A., 2005. The influence of intellectual capital on the nature of innovative capabilities. *Academy of Management Journal* 48, 450-464.
- Tellis, G.J., Prabhu, J.C., Chandy, R.K., 2009. Radical innovation across nations: The preeminence of corporate culture. *Journal of Marketing* 73, 3-23.
- Tepeci, M. & Bartlett, A.L.B., 2002. The hospitality industry culture profile: A measure of individual values, organizational culture, and person-organization fit as predictors of job satisfaction and behavioral intentions. *International Journal of Hospitality Management* 21, 151-170.
- Tracey, J.B., Sturman, M.C., & Tews., M.J. 2007. Ability versus personality: Factors that predict employee job performance. *Cornell Hotel and Restaurant Administration Quarterly* 48, 313-322.
- Tracey, J.B., Tews, M.J., 2004. An empirical investigation of the relationships among climate, capabilities, and unit performance. *Journal of Hospitality and Tourism Research* 28, 298-312.
- Tushman, M.L., Anderson, P., 1986. Technological discontinuities and organizational environments. *Administrative Science Quarterly* 31, 439-465.
- Quinn, D.P., Rivoli, P., 1991. The effects of American- and Japanese- style employment and compensation practices on innovation. *Organization Science* 2, 323-341.
- Victorino, L., Verma, R., Plaschka, G., Dev, D, 2005. Service innovation and customer choices in the hospitality industry. *Managing Service Quality* 15, 555-576.
- Xu, H., Ding, P., Packer, J. 2008. Tourism research in China: Understanding the unique cultural contexts and complexities. *Current Issues in Tourism* 11, 6, 473-491.
- Yang, J.T., Wan, C.S., 2004. Advancing organizational effectiveness and knowledge management implement. *Tourism Management* 25, 593-601.

Table 1 Means, Standard Deviations, Minimum and Maximum Values

	N	Minimum	Maximum	Mean	Std. Deviation
1. Training	196	1.00	5.00	3.7168	.90875
2. Hiring	196	1.33	5.00	3.4745	.84390
3. Incremental innovation	196	1.00	5.00	3.4966	.79205
4. Radical innovation	195	1.25	5.00	3.5551	.78164
5. Firm age	196	1.00	28.00	8.8010	5.38718
6. Firm size ^a	196	20.00	2000.00	242.1173	396.50251
7. Firm type ^b	193	.00	1.00	.3575	.48051

^a. Number of employees.

^b. Dummy coding. 0 = Restaurants, 1 = Hotels.

Table 2 Correlations ^a

	1	2	3	4	5	6
1. Training						
2. Hiring	.393**					
3. Incremental innovation	.420**	.514**				
4. Radical innovation	.390**	.560**	.527**			
5. Firm age	-.022	.087	.115	.124		
6. Firm size ^b	-.035	.115	.037	.160*	.446**	
7. Firm type ^c	-.041	-.140	-.075	-.170*	-.209**	-.268**

Note.

^a. N = 192-196 (Pair-wise).

^b. Log 10 transformation of total number of employees.

^c. Dummy coding. 0 = Restaurants, 1 = Hotels.

* $p < .05$ ** $p < .01$

Table 3 Multiple Regression Analysis Results ^a

	Dependent Variables					
	Incremental Innovations			Radical Innovations		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Controls</i>						
Firm age	.094	.092	.081	.004	.001	-.002
Firm size ^b	.007	-.018	-.011	.158 ⁺	.129 ⁺	.131 ⁺
Firm type ^c	-.056	.007	.010	-.133 ⁺	-.070	-.069
<i>IVs and Interactions</i>						
Training		.259**	.269**		.223**	.226**
Hiring		.416**	.428**		.429**	.442**
Training * Hiring			-.103 ⁺			-.029
R square	.015	.335**	.346**	.055*	.369**	.370**
R square change		.320**	.011 ⁺		.314**	.001
<i>N</i>	3, 188	5, 186	6, 185	3, 188	5, 186	6, 185

Note.

^a. N = 192. Cell entries are standardized regression coefficients.

^b. Log 10 transformation of total number of employees.

^c. Dummy coding. 0 = Restaurants, 1 = Hotels.

⁺ $p < .10$ * $p < .05$ ** $p < .01$

Table 4 Qualitative Examples of Incremental and Radical Innovation

Incremental innovation

Change in administrative issues

“We have to do a lot of repeated daily reports. They are very similar to each other but we did not have a consistent style before. Some of my colleagues started creating a master-copy so that other colleagues do not have to build up the file from scratch every time they prepared the daily report. It is much more efficient to write the report now and the reports more consistent in style.”

“Originally, we did not have a good storage system. Inventories are put here and there. One of my coworkers decided to build an inventories storage list. It takes us some time to adjust and put things in the right place. However, finding inventories now is much easier and the storage area does not look like a mess now.”

Change in customer service

“We are renovating our kitchen and food needed to be cooked in another kitchen which is far away from the restaurant. We are doing extra work to keep up with the regular operation and paying more attention to guests to meet their demands. For example, since we know most of the members very well (including their social group, their food preferences, their usual activities at the club, etc.), we use that information to up sale food that require less preparation, suggest them to sit outside in the poolside instead of the restaurant, give them free snacks and their preferred drinks if they are waiting too long. These actions not only make the operation smoother but also improve guest satisfaction.”

“We don’t have ice-maker and it makes us difficult to serve cool drinks to customers unless we run to the other restaurants to get ice. However, in summer, there are more customers ordering cold drinks and running to and forth is tiring and time-wasting. Then, some of us come up with the idea of putting ice in a vacuum flask and store ice into a few vacuum flasks every morning. Now, the efficiency improves and we do not need to exhaust ourselves to get ice.”

Radical innovation⁵

Change in customer-service policies

“We used to have a very fixed customer service policy. It required us to follow specific step in the guideline. However, in reality, customers may something want something (for example, paying the bill) before another (for example, checking in). Since we are required to follow the guideline, customers are dissatisfied. We suggested to the top management that we need a more flexible customer service policy. Now, we are retrained on a new flexible customer service policy. The new system is much more flexible than the last one and customers are much happier now.”

“Previously, line employees like me was only users in the SpaSoft (the Management System for Spa Operation). We did not have right to access guests' information and special notes. It was very inconvenient. We discussed this with the new spa manager and she changed us from "user" to "administrator". We now have better access to all SpaSoft users. We now can read and edit all the guest notes. Since we don't have such skills to use SpaSoft, we are also trained to consolidate guests' preference and now the system runs faster.”

Change in technology

“When the hotel first opened two years ago, there were only three check-in counters and it was not enough to serve all customers. Customers had to wait long time in queue and they became angry. Every month, there are customers complaining about the waiting time in order to check in. We cannot install new fixed counters since there is not enough space in the lobby. Some of us then suggested the use of portable counters. The hotel then bought two portable machines and we were trained to use portable machines. The operation is much smoother now with these portable machines and we receive much less complain concerning the check-in time.”

“We do not have a good IT system to support the use of portable electronics in the past. Customers were required to connect their computer to

⁵ Although the conceptual distinction between radical and incremental innovation is relatively clear, the empirical distinction may not be a clear-cut. For instance, Sipe and Testa (2009: 4) discussed that while some industry professionals only considered “something that had never been done in the industry as innovation”, others considered innovation as something that “were new to their company”. In general, radical innovation might represent the type of innovation that no one else is doing and/or is a relatively dramatic change to a company’s existing practices; incremental innovation represents the type of innovation that is a small improvement of a company’s current practices.

the room's LAN port in order to register for the Wi-Fi service. Customers are required to call the technical support team in order to access Wi-Fi for their mobile devices (e.g. I-Phone). Customer service representatives like me receive lots of complains on this complicate procedures. We reported these complain to top management. After some feasibility test, a new kiosk is installed in the business centered such that guests can register their machines for Wi-Fi service. We are testing the new system but there are still faults in it (for example, we have to charge the bill to the guest manually). However, I believe if we can suggest a new solution to the management, they will adopt it.

Appendix 1 Measures of Study Variables

Selection (3 items), developed by authors

1. Our firm hires core customer-contact employees based on the variety of skills that they have.
2. Our core customer-contact employees must take a test that assesses multiple skills before they can join our firm.
3. Our firm hires core customer-contact employees with heterogeneous knowledge.

Training (4 items), developed by authors

1. Our firm offers various types of training to enable core customer service employees to obtain skills to perform more than one job or task.
2. Our firm provides training not directly related to the current job of core customer-contact employees to enable them to obtain a variety of skills.
3. Jobs in our firm are broadly defined to enable core customer-contact employees to obtain a variety of skills.
4. Group/team-based work is a feature of our firm, to enable core customer-contact employees to obtain multiple skills.

Incremental Innovation (3 items), from Subramaniam & Youndt (2005)

1. Compared to our close competitors, our firm is far better at innovation that reinforces our prevailing product/service lines.
2. Compared to our close competitors, our firm is far better at innovation that reinforces our existing expertise in prevailing products/services.
3. Compared to our close competitors, our firm is far better at innovation that reinforces how we currently compete.

Radical Innovation (3 items), from Subramaniam & Youndt (2005)

1. Compared to our close competitors, our firm is far better at innovation that makes our prevailing product/service lines obsolete.
1. Compared to our close competitors, our firm is far better at innovation that fundamentally changes our prevailing products/services.
2. Compared to our close competitors, our firm is far better at innovation that makes our existing expertise in prevailing products/services obsolete.

All items were rated based on a five-point likert-type scale:

1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5= strongly agree.