Market Turbulence and Service Innovation in Hospitality: Examining the Underlying Mechanisms of Employee and Organizational Resilience

Abstract

With changing customer demand, fierce market competition, and uncertainties, service organizations are facing dynamic or even highly turbulent environments. Fostering employees' ability to innovate is a far-reaching business strategy for firms to overcome market turbulence and cope with these challenges. Drawing on resilience theory, this study aims to examine whether employee resilience mediated the relationship between market turbulence and service innovation, and 2) whether this mediating process was moderated by organizational readiness for change. Data were collected from employees in the hospitality industry in a developing country, Ethiopia, and the results indicated that employee resilience partially mediates the relationship between market turbulence and service innovation. Moreover, the indirect link was stronger for hotels with higher readiness for change than for those with lower readiness for change. Implications for managers and directions for further research are also discussed.

Keywords: service innovation, market turbulence, employee resilience, organizational readiness, hotels.

Introduction

Although the hospitality industry has been experiencing substantial growth, together with the rapid development of technology in a wider range of social and economic areas, challenges such as trade wars, risks, uncertainties, turbulences, crises, and disasters, have been affecting the industry's growth (Wang & Ritchie, 2010; Senbeto & Hon, 2018). Changing customer demands and competition, forces service firms to invest considerable efforts to be responsive to customer needs as well as to sustain a competitive advantage. Due to this, the business environment has become more dynamic, unpredictable and characterized by stiff competition, which increases the need for firms to continuously innovate and ensure their long-term survival. Service modifications, or even the creation of new services, are needed to address the changing environment, and it is also vital for firms to relieve the pressure caused by uncertainties and turbulent market environment (Campiranon & Scott, 2014; Israeli & Reichel, 2003).

Yet, ensuring service innovation requires considerable organizational and employee efforts to create new ideas, take risks, and stimulate new work processes. The likelihood of achieving service innovation is low (Hon & Lui, 2016), since service innovation is somehow risky and it demands individuals' motivation and effort to change the status-quo in thinking and action. Hence, it is questionable whether certainty of service innovation without maintaining both individual and organizational agility and adaptive mechanisms within organizations (Williams et al., 2017). Service innovation is considered to result from readiness and reflects the collective inclination arise by employees and organizations to tackle turbulent environments. With this regard, organizations and employees' resilience play crucial roles to ensure service innovation and initiation to improve business performance and competitiveness in a turbulent market environment. Employees denoted as the linchpin for service innovation (Lee & Hyun, 2016). More

specific, the role of frontline employees is crucial in ensuring organizational effort toward service innovation, since they regularly interact with customers, can identify what customer needs, required improvement and potential solutions to service-related problems (Karlsson & Skålén, 2015). However, to date, limited progress has been made in understanding the impact of market turbulence on service innovation where resilience and readiness for change could have an intervening effect.

Considering this, there are several reasons that this study is important. First, despite the importance of service innovation in tackling competiveness in uncertain environments, it is considered as an under-developed research area (Randhawa et al., 2016). In addition, the implementation of service innovation faces difficulties without individual and organizational effort and understanding factors which influence achievement of service innovation. Due to this, researchers and managers may not be able to understand how service-based firms like hotel could perform and develop precise strategic and marketing plans to deal with a turbulent environment. On top of this, although the importance of service innovation seems perceptible, limited attention has been given to examining service innovation in hospitality compared to product innovation (Hon & Lui, 2016). The existing service innovation literature concentrated on the developed countries context (Alam, 2011), thus less attention is given to how and when service innovation will be performed in response to market turbulence at micro-level tourism organization in developing countries setting.

In response, we propose that integrating resilience theory will provide a thorough understanding of the influence of market turbulence on service innovation. Moreover, we also

speculate that organizational readiness for change works as a crucial boundary condition to influence the mediating role of employee resilience between market turbulence and service innovation. Drawing on resilience theory, this study develops a research model to achieve two research objectives: 1) to analyze the influence of market turbulence on service innovation mediated by employee resilience. 2) to test the moderated mediation effect of organizational readiness to change to moderate the mediating effect of employee resilience on the relationship between market turbulence and service innovation. The study move beyond the existing literature by investigating the intervening effect of resilience and readiness for change on the impact of market turbulence on service innovation. At last, the study contributes to the service, strategic, and management literature regarding market turbulence and service innovation pertaining to the hospitality context.

Service innovation in developing countries

Because of economic liberalization and change in economic policy, service industry including the hospitality has been flourishing in many developing countries (Ostrom et al., 2010). Although the idea of service innovation has been targeted by developing countries, less is known about service innovation rather literature pay attention on product innovation and technological capabilities in developing countries. Service innovation is positively considered as a mechanism to achieve success in competitive market. Nonetheless, because of variation in economic, cultural and competitive environments, strategies and intention to foster service innovation is varies across developed and developing countries (Webster & White, 2010). In supporting this, drawing from comparative analysis on service innovation between developed and developing countries, Alam (2011) noted that that although service innovation is positively perceived, there is a variation in approaching service innovation between developed and developed countries. The finding indicates

that risk-taking culture is the key factor which determines initiation and handling of service innovation in between developed and developing countries. Compared to developed countries, developing countries are more prone to risk aversion because of limited resources and uncertainties. In addition, intensive business analysis and focus on return on investment has been seen as the main manifestations of service innovation in developing countries, while developed countries approach service innovation by providing training and staff development. Nevertheless, studies argued that there is paucity of research on service innovation in developing countries setting (Carlborg et al., 2014; Hjalager, 2010).

Likewise in developing countries like Ethiopia, service innovation received insufficient attention, despite the country has been experiencing a rapid growth in hospitality industry, and service sector burgeoned into the main feature of the economy. With extensive day-to-day progress in hotel, Ethiopia has been listed as a promising destination for international hotel chain improvement (Ward, 2016). Nevertheless, internal and external challenges have been hindering the country's hotel industry. Some of them are, service quality, human resource and developmental issues, and emerging stiff competition. Thus, this study underscores service innovation to cope with changing market need in developing countries like Ethiopia.

Theory and Hypotheses

Resilience Theory and Market Turbulence

Although the term "resilience" has been defined on the basis of different perspectives and disciplines, it is commonly agreed that resilience is the ability to maintain achievement in adverse situations and to recover from and cope with changes (Luthans, Vogelgesang, & Lester, 2006).

Richardson (2002) notes that resilience is seen as a motivational state of mind that a person derives to achieve self-actualization and altruism congruent with spirituality. The state of resilience is particularly important in an uncertain and turbulent environment, in which it delves how individuals respond and adapt to uncertainties, and, subsequently, the individual's capability to recover from and adjust to the uncertainties. With this definition, resilience has been investigated as a complex phenomenon which involves temperament and attitude as an internal factor and community setting as an external factor. The essence of resilience theory has been applied in human settings to investigate how humans alleviate pain and adversities which can be through adaptability or flexibility. The theory has been utilized to explain individuals or organizations capability to bounce back from adverse and traumatic events.

Building on resilience theory, the foundation of individual resilience can be conceived as either a personal trait which is inherited as a person's psychological capacity or as a capacity that a person can develop through training or person-environment interactions (Egeland, Carlson, & Sroufe, 1993). Drawing from person-environment context, resilience theory suggests that employee resilience is contingent on factors related to internal strategies and support designed to raise resilience (Greene, Galambos, & Lee, 2004). Resilience theory suggests that achieving resilience requires support and building capacity in order to bounce back from adverse and uncomfortable situations, such as market turbulence. Based on such theoretical view, we examine the mediating effect of employee resilience on the effect of market turbulence on service innovation. In addition, we assume that the mediating effect of employee resilience may depend on the extent of organizational readiness for change. Figure 1 presents the research model of this study and shows the influence of market turbulence on service innovation.

Market Turbulence and Employee Resilience

Market turbulence has become a common phenomenon in the contemporary business environment. Drawing from Kohli & Jaworski's (1993) definition on market turbulence, this study considers market turbulence as a change in market demand and fluctuations in market trend. Given the uncertainties caused by market turbulence, organizations may face difficulties in identifying customer needs, market dynamics, and the influence of competitors (Santos-Vijande & Álvarez-González, 2007). As a result, there is the likelihood that products and services offered by organizations may become incompatible with customers' needs and market competition caused by unstable markets. Market turbulence creates uncertain environments for organizations' endeavors and transformation strategies. Hence, it affects employees' adaptability and intention to manage changing market demand. Although employee resilience is a means of springing back or bouncing back from challenges and changing situations (Paul et al., 2016), a highly turbulent market environment influences employees' intention to develop resilience at workplace. Drawing from process-outcome resilience theory perspective, resilience requires continuous support, readiness to change and assisted by human resource management practices, with little effort, resource, and readiness for change negatively influence employee resilience especially in condition to market turbulence. This proposition shows that there is a negative relationship between market turbulence and employee resilience especially in developing countries context where resources are limited to support employee's resilience. In supporting this, on the basis of an examination of the 1994–1995 financial crises in Mexico, Pratap and Quintin (2011) assert that market turbulence negatively affects employees' productivity and performance. In addition, studies note that market turbulence

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influences employee resilience and adaptability to tackle difficult situations in developing countries (Branzei & Abdelnour, 2010; Briguglio, Cordina, Farrugia, & Vella, 2009). Based on resilience theory, we assume that with less psychological and human resource practices, market turbulence may negatively affect employee resilience. Thus, we predict that market turbulence will be negatively related to employee resilience.

Hypothesis 1: Market turbulence is negatively related to employee resilience.

Employee Resilience and Service Innovation

It is axiomatic that service innovation is crucial for service firms to create and sustain new markets and future developments. Barcet (2010) defines service innovation as introducing "something new into the way of life, organization, timing and placement of what can generally be described as the individual and collective processes that relate to consumers" (p. 51). Beyond the traditional research-based innovation approach, a growing body of studies has proposed the idea of service innovation to contemplate market trends through successful human resource practices (Chen et al., 2016; Den Hertog et al., 2010; Okoe et al., 2018). In the current servitization era (i.e. service is seen as a transformation journey that firms should need to pursue solutions to supplement their traditional product offerings), rapidly changing market demand and stiff competition, the importance of fostering service innovation is unquestionable. However, service innovation requires resilient employees who are better equipped to cope with constantly changing market demand. More importantly, employee resilience can be more lucrative in addressing change, searching problem-solving mechanisms or ways to quickly recover from disruptions (Shin, Taylor & Seo, 2012). In supporting this proposition, Hamel and Välikangas (2003) note that, the relationship between resilience and innovation is, in fact, a supplementary one. Research found that resilience is positively related to innovation in an organization (Richtnér & Löfsten, 2014).

Building on process-outcome view of resilience theory and studies suggests that resilience could positively support organizational capacity building and service innovation (Caza and Milton 2012; Akgün, & Keskin, 2014). Thus, we predict that employee resilience is positively influence service innovation.

Hypothesis 2: Employee resilience is positively related to service innovation.

The relationship between Market Turbulence and Service Innovation: Employee Resilience as a mediator

In a constantly changing market environment, service innovation enables firms to better adapt to a dynamic and unstable environment (Pehrsson, 2016). The importance of service innovation is unquestionable because of the fact that firms need to overcome the challenge of changing customer demands and the competitive market brought by a turbulent market environment. However, service innovation by itself is risky, and it requires changes in the status-quo ranging from ways of thinking to ways of performing (Hon & Lui, 2016). Thus, fostering service innovation is seen to be challenging in a situation where the market experiences turbulence and complexity of services and customer demand. More specifically, the influence of market turbulence may destroy organizations' intention to nurture innovation because of the risks and uncertainties associated with it (Hon, Bloom, & Crant, 2014). Turbulent environments encompass with ambiguity, uncertainty, and risk; thus, firms are customarily unsure whether and how their efforts to initiate change and be innovative will succeed. When the external market signals that competition is keen and innovation is risky, and failures are unacceptable, firms are likely to be to resistant to making efforts to innovate, which will be detrimental to their service innovation performance. This is particularly important in a turbulent environment because any failure or error will create market decline or even going bankrupt. Supporting this, Hadjimanolis (2000) argued

that innovation is difficult to attain because of a turbulent market environment in the developing world which is propelled by market competition and resource limitations.

Despite the ever-increasing uncertainties in the hospitality industry, resilient employees strive to adapt to, or even tackle, uncomfortable work environment. This implies that employee resilience influences intention to change and solve disruptions, thus resilient employees are essential to soothe a precarious market environment. In this study, we consider the fact that pursuing service innovation without enhancing resilience is risky, and it could expose organizations to further shocks and stresses. In supporting this, previous studies have noted that resilience plays considerable role to manage turbulent environments in an organization (Kurtz & Varvakis, 2016; Weick & Sutcliffe, 2007). In addition, a burgeoning body of studies supports the importance of resilience to maintain service innovation especially in developing country settings (e.g. Mafabi, Munene, & Ntayi, 2012; Martin, Rios & Pasamar, 2018). Capitalizing on the key impact of employee resilience on service innovation, this study assumes that market turbulence may reinforce or undermine service innovation. This assumption motivates us to examine the mediating role of employee resilience on the relationship between market turbulence and service innovation. Thus, we propose the following hypothesis:

Hypothesis 3a: Market turbulence negatively affects service innovation.
Hypothesis 3b: Employee resilience mediates the relationship between market turbulence and service innovation.

Moderated mediation effects of Organizational Readiness for Change
The study also considers the 'moderated mediation effects' of organizational readiness for change on the relationship among market turbulence, employee resilience and service innovation. Since employees are managed and controlled by organization-based procedures, the mediation role

of employee resilience may depend on the level of organizational readiness for change. The existing literature conceptualizes the notion of 'readiness for change' not only as the confidence and ability of an organization to establish and manage change (Vakola, 2013) but it also encompasses organizations' unpreparedness to execute change. The idea of organizational readiness for change includes the ability of an organization to settle and determine change successfully. Readiness for change determines an organization's preparedness to cope with challenges, and the involvement of employees can have an impact on the effectiveness of organizations' readiness. According to resilience theory, organizational readiness for change emphasizes the importance of flexibility and adaptation in uncertain environments (Luthar, Vogelgesang, & Lester, 2006), and the extent of it may determine employees resilience and initiation to foster service innovation in a turbulent market. Although service innovation is essential to manage a turbulent market environment, the complexity of demand and fulfilling the prerequisites to achieve service innovation are demanding for organizations. Service innovation cannot be achieved without facing risks and uncertainties as it requires changes in the status quo ranging from ways of thinking to acting (Hon & Lui, 2016).

Drawing from the question of how organizations become incompetent in a turbulent environment, Richtnér and Löfsten (2014) stress that cognitive, structural, and emotional resources are necessary to maintain an innovative work environment. In addition, Weeks et al. (2004) note that, the level of organizational readiness for change determines employees' adaptation to change and diminishes their fear of and resistance to change which in turn assists service innovation. This implies that employees assisted by preparation and capacity to change could gain the strength and competence to cope with adverse situations than employees executed under lower organizational

readiness for change. This study therefore considers organizational readiness for change as a moderator that is likely to moderate the mediating effect of employee resilience on the relationship between market turbulence on service innovation. This is hypothesized as follows:

Hypothesis 4: The mediating effect of employee resilience on the relationship between market turbulence and service innovation is moderated by organizational readiness for change.

Methods

Sample and Data Collection Procedure

The data for this study were collected from hotel employees in Ethiopia using a paper-based questionnaire survey distributed in a face-to-face basis to employees and managers during working hours from February to June, 2018. Since the number of employees and managers is unknown and random selections remain unfeasible, the study adopted non-probability sampling i.e. convenience sampling depending on accessibility, convenience, and willingness of the respondents. The sample selection was limited to full-time front line employees; because of their crucial role in service innovation arise from customer interaction and exposition to examine market demand. The whole questionnaire was translated from English to Amharic (an official language in Ethiopia), and then two bilingual language experts were invited to back-translate the questionnaire and to confirm the quality of the translation and the consistency of meanings. The translated questionnaire was then verified and checked by two bilingual hospitality scholars, and they suggested some revisions related to wordings and the meaningfulness of sentences.

A pilot study was conducted with 40 employees and 10 managers to check the content and face validity of the questionnaire as well as issues related to clarity, readability, meaningfulness, and wordings. Some changes on the wordings were made on items under service innovation and market turbulence construct in the translated version. Respondents in the pilot study suggest front

line hotel staffs who are engaged in customer interaction and marketing issues. The research team contacted the human resource managers of 35 hotels and asked them if they were willing to participate in the study. Of the 35 hotels contacted, 23 accepted the invitation. These hotels were located in three cities in Ethiopia: Addis Ababa, Bahir Dar, and Hawassa. These cities have considerable potential in the hotel development, and also diverse staffs from different regions of Ethiopia. A total of 357 and 125 questionnaires were distributed to employees and supervisors respectively.

We checked for outliers (i.e. univariate and multivariate) and missing values by using SPSS version 25. Following the standardized z-scores in the range of 2.9 and below 4 (Hair et al., 2010), the result indicates that there is no univariate outlier. With regard to multivariate outlier, Mahalanobis D^2 values is suggested to distinguish multivariate outliers (Hair et al., 2006), making it needful to measure the distance of each data points from its respective centroid. We distinguished and removed 28 outliers based on statistical significance for chi-square distribution (1– CDF.CHISQ (MAH D2, 4)) at a threshold of 0.001. Regarding missing values, we found that missing values occurred in a random fashion with no concentration at a single item and is considered as MCAR (Missing Completely at Random) (Hair et al., 2006). This shows that the current study had a small percentage of missing data which is less than 10% of the total survey and most of them are on demographic variables like age and income.

After checking missing values, incomplete surveys and outliers, out of 23 hotels, 298 employees paired with 78 supervisors' questionnaires were usable for further data analysis. In such instance, a response rate for employees' questionnaire was 83.4%. Regarding the supervisor sample, out of the 125 questionnaires distributed to managers, 78 were valid for subsequent analysis, representing a response rate of 62.4%. in average, the usable response rate is with a ratio of 1:4, which is 1 supervisor with 4 employees responded to the survey. Employees' response show higher because in some way they are regulated by managers to respond. Considering the sample size with a ratio of 10:1 has been recommended as the rule of thumb for SEM-based research (Hair et al., 2010), the collected sample size is appropriate for this study.

We employed t-test to detect the difference between early and late respondents (Armstrong & Overton, 1977), and the results showed that none of the means were significantly different from zero at p < .05; hence, the data were free from non-response bias. Fifty-one percent of the respondents were male and 49% were female. In terms of age, the majority of the respondents (53%) were in the 26–35 years age group, 21% were aged 18 to 26, 11% were between 36 and 45 years of age, and 5% were 46 years old or older. Most of the respondents (82.7%) had a college/university education level of education, and the rest (17.3%) had either a postgraduate or a secondary/high school level of education. The respondents' monthly salary data indicated that 41.5% had a monthly salary in the range of 2001 to 2999 ETB (Ethiopian Birr), 28.6% earned between 3000 and 3999 ETB per month, and 11.5% earned between 4000 and 4999 ETB per month; 17.1% had a monthly salary of less than 2000 ETB, and 7.7% had a monthly salary of above 5000 ETB.

Measures

The questionnaire included major constructs such as market turbulence, employee resilience, service innovation, and organizational readiness for change. A 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) was utilized. For the sake of objectivity, common method bias, and social desirability (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), the study adopted a multi-source data collection method in which supervisors rated their employees' resilience and organizational readiness for change in their company. We chose both employees and managers to rate market turbulence and service innovation since both of these constructs can be noticed by both groups. Then, a T-test was used to detect whether there was a difference in the perceptions of employees and managers towards market turbulence and service innovation. We chose measurement items developed based on appropriate conceptual and

empirical assessment suggested by previous literature. The measures and the overall procedures for each of the constructs are discussed below.

Market turbulence. Four items were adapted from Jaworski and Kohli (1993) to assess the extent of market turbulence and uncertainty. Sample items included "I believe that the hotel market is changing rapidly" and "It is very difficult to forecast where the hotel market will be in the next 2-3 years". Results from a T-test indicated that there was no significant difference between employees' and supervisors' perception of market turbulence in the hotel industry (t = 1.7, p > .05). The coefficient alpha for this scale was 0.86.

Employee resilience. We adopted nine items developed by Näswall, Kuntz, Hodliffe, and Malinen (2015) to assess employee resilience. Sample items included "He/she can make suggestions even when I do not have as much information as I would like" and "He/she can make decisions even under extreme time pressure". The coefficient alpha for this scale was 0.90.

Service innovation. We adopted Grawe, Chen, and Daugherty's (2009) five items to measure service innovation in organizations. Sample items included "Our hotel is able to modify current service approaches to meet special requirements from customers" and "Our hotel is able to modify our current service approaches to meet special requirements from customers". The results of a T-test showed that there was no significant difference between the employees' and supervisors' responses on service innovation (t = 2.5, p > .05). The coefficient alpha for this scale was 0.90.

Organizational readiness for change. To assess organizational readiness for change, we used 4-item scale originally developed by Trumbo (1961) and later modified by Hardin (1967) and Daley (1991). We modified the wording of some items in accordance with the study's context. Sample items included "Our hotel has rigid hierarchical structures that prevent us from

implementing change" and "Our hotel achieves cross-functional cooperation in implementing change". The coefficient alpha for this scale was 0.86.

Control variables. Since previous studies have noted that demographic variables influence behavioral reactions with regard to change, we controlled for age, gender, experience, educational level, and tenure (Kusluvan et al., 2010). As employees' resilience was rated by their supervisors, we controlled for the employee-supervisor relationship (length of time that they had worked together). We controlled for hotel star rating, as previous studies mention that hotel star category could indicates various hotel performance and service innovation (Hjalager, 2010). A dummy variable was utilized to control the above variables.

Analytical strategy. Descriptive statistics and correlation analyses of the four constructs (market turbulence, employee resilience, service innovation, and organizational readiness for change) were performed using SPSS version 25. Structural equation modelling (SEM) with AMOS 25.0 was used to examine the hypothesized model. SEM helps to examine the theoretical relationship between variables (Hair et al., 2010). Considering the aim of the study, we propose SEM as an ultimate statistical technique to examine the hypothesized relationship among major constructs. Two-stage analytical procedures were followed to test the hypothesized model (Anderson & Gerbing, 1988). First, confirmatory factor analysis (CFA) was conducted to ensure the validity and elegance of the constructs. Then, SEM was performed to measure the hypothesized relationships. Several goodness-of-fit indices resulting from the CFA, such as Chi-square, goodness-of-fit model (GFI), root mean square error approximation (RMSEA), the Tucker-Lewis Index (TLI), and the comparative fit index (CFI), could indicate the robustness of a particular measurement model (Byrne, 2016).

Analysis and Results

Descriptive statistics and correlations. Table 2 presents the results of descriptive statistics (i.e. means, standard deviations, and correlations). As expected, service innovation was negatively related to market turbulence ($r = -.31$, $p < .01$) and positively related to employee resilience ($r = .14$, $p < .01$). Organizational readiness for change was positively related to market turbulence ($r = .15$, $p < .01$), employee resilience ($r = .18$, $p < .01$), and service innovation ($r = .12$, $p < .01$). Problems related to multi-collinearity issues were checked. The results showed that the VIFs ranged from 1.02 to 1.12 fell under the acceptable cut-off value of 10 (Neter et al., 1985). Subsequent measurements and structural model analysis were conducted on the basis of the above findings.

Common method bias. We used procedural and statistical techniques suggested by Podsakoff, MacKenzie, Lee, and Podsakoff (2003) to evaluate common method bias. Procedurally, we first used a multi-source sampling in which we elicited observations from employees and supervisors. This could alleviate the biases arising from social desirability and miscalculation of behavioral and self-judgmental states. Second, we cleared out ambiguous items and equivocal concepts and provided specific questions. The third measure we followed to reduce common method bias was to require hotels to express their willingness to participate in the study, thereby ensuring the confidentiality of all responses, including supervisors' ratings on employees' resilience. Statistically, we used Harman's single factor test to detect common method bias (Harman, 1967); we found out that out of the four constructs, the maximum variance explained by one factor was 26.8%, which was lower than the threshold value of 50%.

Measurement model. CFA was performed to assess the overall measurement model. As indicated in Table 3, the overall fit results of the initial full measurement model (Model I) suggested that the fit indices fell within acceptable ranges ($\chi2 = 298.47$, df = 202; GFI = .91; CFI = .97; TLI = .96; and RMSEA = .040). As shown in Table 1, all the factor loadings were higher than the cut-off point of 0.5 (Hair et al., 2010). The t-values were above 1.96 with a 95% confidence interval, and this implies that the limits and the factors were significantly related.

Insert Table 1 about here

Table 1 shows that the proposed four-factor model achieved convergent validity, with average variances extracted (AVEs) greater than 0.5. This indicates that there is a relationship among the measurement indicators in their respective constructs (Fornell & Larcker, 1981). In addition, the composite reliability of all the constructs was greater than 0.7, which means that the items were consistently measuring the respective constructs (Tavakol & Dennick, 2011). Factor loadings drawn from the CFA results showed a significant value with $p < .01$; thus, the reliability and validity of the constructs were within an acceptable range. To assess the discriminant validity, we compared the four-factor model with the one-factor model. The one-factor model resulted in a poorer fit ($\chi2 = 2192.82$, df = 209, GFI = .51, CFI = .41, TLI = .35, RMSEA = .17). Such poor fit indices were caused by inflated chi-squares and demonstrated that the proposed model mitigates common method bias issues. Hence, this indicates that the single factor model did not explain majority of the variances. In addition, as reported in table 1, the square root of AVE is higher than the construct correlations, and this implies the proposed framework can support the proof for discriminant validity (Fornell & Larcker, 1981; Hair et al., 2010).

Structural model. On the basis of the acceptable fit of the CFA model, SEM was utilized to test the study's hypotheses. Figure 2 shows the overall structural model with path coefficient values. A significant and expected direction among the key variables by number correlations was observed. As shown in Figure 2, market turbulence was negatively associated with employee resilience (β = -.14, p < .05); hence, Hypothesis 1 was supported. Similarly, employee resilience was positively related to service innovation (β = .13, p < .01); thus, Hypothesis 2 was supported. The results also supported Hypothesis 3 that market turbulence was negatively associated with service innovation (β = -.34, p < .01).

Insert Figure 2 about here

The Mediating Effect of Employee Resilience

This study tested the mediation effect by using Baron and Kenny's (1986) procedure followed by CB-SEM (covariance-based structural equation modeling). In accordance with Baron and Kenny's (1986) procedures, a significant coefficient was attained in the direct effect (predictor and outcome variables) of market turbulence on service innovation (b = -.35, p < .05). And a significant coefficient was obtained in the relationship between (predictor and mediator variable) market turbulence and employee resilience (b = -.16, p < .05). In Table 3, the X^2 test indicates there was a difference between the hypothesized model (Model 3) and the alternative model (Model 4) ($\chi2[4]$ = 43.17, n.s.). However, in the alternative model, the direct effect of market turbulence on service innovation was significant. Thus the finding indicates that employee resilience partially mediates the influence of market turbulence on service innovation, since both the direct and indirect effect obtained a significant coefficient. Therefore, hypothesis 4 was supported in which employee resilience partially mediates the linkage between market turbulence and service innovation.

Table 3 presents the SEM results, which suggested that the data were well fitted with the hypothesized model (χ2 = 258.71, df = 133, p < .01, RMSEA =.056, CFI =.96, GFI = .91, TLI = .95). To further examine the indirect role of employee resilience, we executed bias-corrected and percentile bootstrapping at the 95% confidence interval with 1000 samples (Taylor, MacKinnon, & Tein, 2008). In addition, we examined the lower and upper bound confidence intervals to confirm the significance of employee resilience as a mediating variable (Hayes, 2013). The CB-SEM bootstrap test result confirmed that employee resilience partially mediate the influence of market turbulence on service innovation with an exclusion of zero in the bootstrapping estimation (indirect effect = - 0.21, p < 0.05, 95% BCaCI [-.067, -.001]).

The moderated mediation effect of organizational readiness for change

In a 'moderated mediation model', the mediating effect is subjected to the level of the moderator (Wu & Zumbo, 2008). In this study, to test hypotheses H4, we conducted a moderated mediation analysis with organizational readiness for change as a moderator to examine the indirect effect of employee resilience on the relationship between market turbulence and service innovation. In accordance with Edwards and Lambert (2007) and Muller et al. (2005), the moderated mediation effect of organizational readiness for change was established if either or two of the following conditions are existed (a) the path from market turbulence to employee resilience was moderated by organizational readiness for change, and/or (b) the path from employee resilience to service innovation was moderated by organizational readiness for change. We followed CB-SEM to test the moderated mediation effect by using standardized coefficient and mean value of greater or less than 4 to determine low and high level of constructs. With multi-

group invariance analysis, AMOS 20.0 provides the fit indices, t-statistics, and p-values of the model. Table 4 presents the results of the main and interaction effects between the variables.

Insert Table 4 about here

As Table 4 illustrates, model 1, there was an overall effect of market turbulence on service innovation (b = -.35, p < .05). This effect was moderated by organizational readiness for change (b = .15, p < .05). In model 2, the mediator, employee resilience, was the criterion. Here, there was a significant main effect of market turbulence, (b = -.161, p <.05), and a significant market turbulence × organizational readiness for change interaction effect on service innovation, (b =.14, p < .05). In model 3, service innovation, was the criterion. Here, the interaction effect of employee resilience × organizational readiness on service innovation was not significant, (b = -0.65, p > .05). This implies that service innovation is embedded in the values and norms of hotels since employee resilience is already well developed in the hotel industry. In such vein, service innovation is enabled by employees who are expected to demonstrate the capacity to adapt and transform when faced with risks and crises. To achieve service innovation, organizational readiness for change plays a crucial role in developing employee resilience in order to curtail the impact of market turbulence.

Insert Figure 3 about here

Insert Figure 4 about here

For descriptive purposes, we plotted figure 3 and figure 4 to exhibit the moderated mediation effect of organizational readiness for change on the relationship between market turbulence and service innovation. Figure 3 shows that, for higher ORC, the effect of market turbulence on employee resilience was weaker. In a similar vein, for higher ORC, the influence of market turbulence on service innovation was weaker. Thus, our result indicates that a greater readiness for change minimizes the influence of market turbulence on hotels' intention to foster service innovation. Thus, we suggest that readiness for change could maintain the capability of organizations to address difficult situations in innovative ways.

Discussion and Conclusions

Theoretical contribution and Implications

The impact of market turbulence on service innovation has garnered considerable empirical support (Pehrsson, 2016). However, the intervening effect of resilience and readiness for change (how and when employees' resilience and organizational readiness for change relate and influence the impact of market turbulence on service innovation) remain as questions of inquiry. Based on resilience theory, this study formulated and tested a moderated mediation model. Findings suggest that the influence of market turbulence on service innovation is partially mediated by employee resilience. Furthermore, the mediating effect of employee resilience was stronger for hotels with higher readiness for change than for those with low readiness for change. Based on such findings, this study provides several contributions for research on market turbulence and service innovation.

The study's theoretical contribution and implications are fourfold. First, although there is a reach body of literature on the importance of service innovation in hospitality industry, little attention has been paid to investigate the impact of market turbulence on service innovation in

which complexity and dynamism have been facing the service industry in particular the hotel sector (Campo, Díaz, & Yagüe, 2014; Chen et al., 2016). In addition, less is known about service innovation compared to manufacturing sector (Nicolau & Santa María, 2013), and despite the importance of service innovation to the hospitality industry, there are few studies that have considered turbulence and resilience. In response to this, the current study helps to extend current theoretical knowledge about how and when resilience and firms' readiness can influence service innovation in time of turbulent market environment. Furthermore, to the best of our knowledge, the study is the first which attempt to examine market turbulence through considering readiness to change and resilience in hospitality literature.

Second, the study provides insights into market turbulence and service innovation in hotels and in a developing country setting. Existing research has called for more studies to investigate resilience, service innovation, and market turbulence in developing economies (Carlborg et al., 2014; Rubalcaba, Aboal, & Garda, 2016). It is axiomatic to say that market turbulence affects the hotel business, especially in a country where the service sector faces resources limitations. For example, the hotel sector in Ethiopia faces several challenges and somehow hotels are unable to cope with the emerging changes, thus some old hotels have been leaving the market for the newcomers. Building on consideration of hotel industry in Ethiopia, our finding stresses the importance of readiness for change and resilience to assist service innovation in hotels in Ethiopia, as it is essential to elevate the current rapid development.

Third, we responded to limited availability of theory-based framework on service innovation (Chen et al., 2016), by utilizing resilience theory and frame the impact of market turbulence on service innovation, while considering the intervening effect of resilience and

readiness for change to influence such relationships. The findings of this study add to the hospitality literature by identifying the linkage among market turbulence, employee resilience, organizational readiness for change, and service innovation in the hotel context. At last, the study provides empirical evidence on organizational and individual points of view regarding market turbulence, employee resilience, and service innovation. And it extends our current understanding to turbulence and market competition related issues challenging the tourism and hospitality sectors in developing countries like Ethiopia. The findings stress readiness of the hotel industry in Ethiopia to cope with challenges which hinders the current steady growth.

Managerial implications

This research has several practical implications. First, service firms have been experiencing highly turbulent environments, and they strive to adopt innovative services to cope with a fluctuating market. Given the fact that service innovation assists the attainment and application of different market alternatives and procedures, the current study suggests that managers in a turbulent market environment must recognize that service innovation can be one of the workable approaches to attract new customers and retain existing ones. Although employees are the linchpin in ensuring service innovation, the findings suggest that managers need to comprehend the influence of employee resilience and organizational readiness for change to deal with a turbulent market environment. Thus, organizations should train managers specifically on how to engage in flexible and adaptable work attitudes, coach subordinates and team members, and serve as role models for their followers.

Second, our findings reveal that a higher level of readiness for change as well as employee resilience will be necessary to tackle market turbulence. We suggest that providing a conducive

work environment, enhancing resilience, and making employees aware of the process and outcome of the intended change can be indispensable mechanisms for managers to maintain service innovation in a turbulent market environment. To do this, human resource practitioners should prioritize employee resilience in the current incessantly changing market environment, creating resilient employees and not just utilizing resources, but they should also put efforts into confronting market turbulence and search for new procedures which lead to the adoption of service innovation (Luthans, Vogelgesant, & Lester, 2006). Thus, we suggest that managers should combine measures of employee resilience in the recruitment and selection process; this could be regarded as advanced strategic preparation for an uncertain market environment. Recruiting resilient employees will help to spur organizations' effort to offer services in an innovative way.

Third, our results emphasize that in a turbulent environment, service innovation is influenced by the readiness of an organization which results from a myriad of policies, procedures, and practices for change. This alerts managers to the importance of considering the implications that changes to policies and procedures might have on employees' resilience-related motivation and training. Our study shows that change-oriented organizations are important for fostering service innovation but also emphasizes the important role that employee resilience plays in an unstable market. These results suggest that hospitality firms should not only look for ways to be ready for change but should also seek ways to encourage adaptability and flexibility among employees through direct encouragement of employees' abilities by providing training on resilience; this could have important effects on service innovation.

Limitations and Directions for Future Research

Although this study provides a number of theoretical and practical implications, it has several limitations. Since the exact number of hotel employees is unknown, the study collated samples based on non-probability sampling in which an unknown proportion of the whole population of the selected hotels was not sampled. Thus, a larger sample size using probability sampling would be desirable in future research. Although we used multi-source ratings which included both managers' and employees' responses to limit the deficiencies that can occur using a cross-sectional design, the current research design is not experimental and therefore we cannot fully establish causality on employee resilience based on standard manipulation procedure. The study did not consider financial performance of the hotels, the level of competition, and, how challenging the employee's supervisor is, or other firm or environmental factors. Further studies are necessary to understand how service innovation is influenced by several other types of turbulence and crises stemming from technological, economic, environmental, and social factors. More importantly, future research could include customers' involvement and their views on service innovation as well as service quality in times of market turbulence, and customers' evaluation (Rubalcaba et al., 2012) toward how hard employees work to curb market turbulences is essential to understand employees' resilience.

On the other hand, we did not examine whether other factors further mediate the relationship between employee resilience and service innovation. We reasoned that market turbulence is associated with employee resilience and that such resilience further drives employees' efforts to innovate, thereby leading to higher service innovation. Other potential mediating variables, such as learning, trust, job satisfaction, employee-supervisor relationship, *and efficacy, can also be assessed to investigate the linkage between market turbulence and service innovation. With aim to enhance employee resilience and service innovation in hotel, future studies*

are also needed to assess how cultural factors, work environment, job stress, and co-worker support, leadership style, and perceived organization performance could mediate the relationship between employee resilience and service innovation (Bani-Melhem, Zeffane, & Albaity, 2018; Deverell & Olsson, 2010).

To deal with the generalization issue, future research could replicate this study in different geographical and demographic settings; this would be useful to obtain a broad view of developing countries context. Comparative studies across developing and developed economies and across different types of hotel are recommended to examine the relationship between market turbulence, employee resilience and service innovation. The findings of this study revealed that the impact of market turbulence on service innovation is contingent upon employee resilience and organizational readiness for change since these help hotels to cope with uncertain market environments. To summarize, employee engagement in service innovation and the extent of employee resilience in a turbulent market environment have received considerable attention in the marketing. The main purpose of this study was to assess service innovation in a situation where the market is not invariant. Drawing from resilience theory, this study examined the influence of market turbulence on service innovation. It addressed the moderated-mediation impact of organizational readiness in this contemporary study. Finally, we also discuss the implications of the research and directions for future studies that seek to understand the impact of market turbulence on service innovation.

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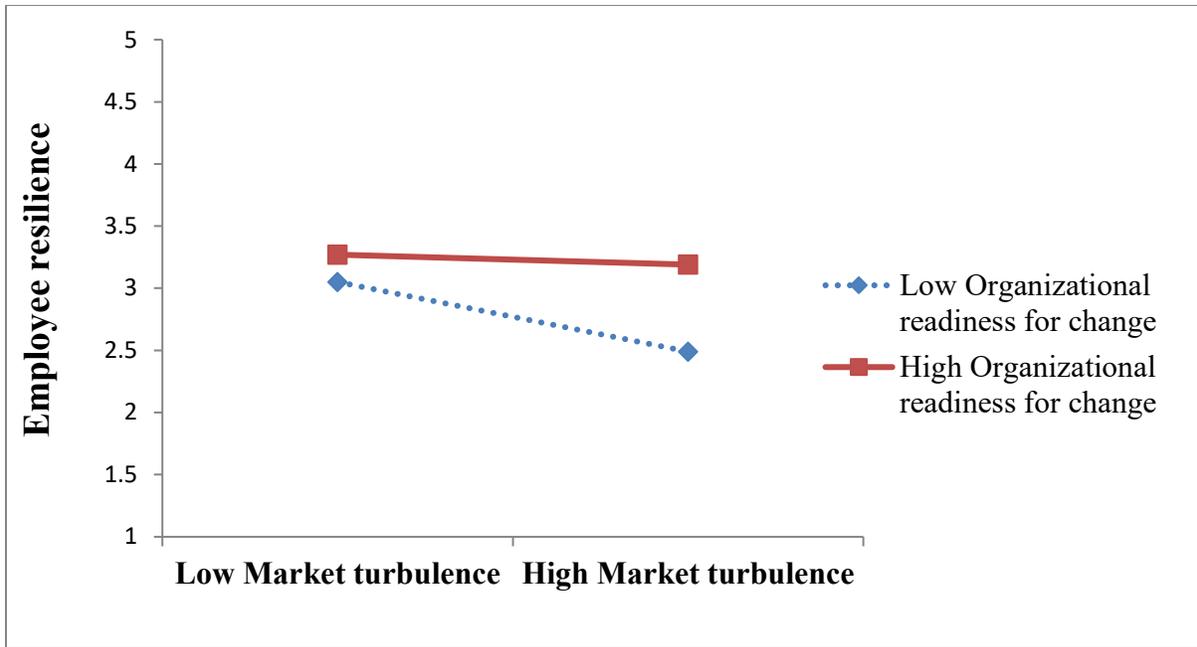
Figure 1
Research Model on Market Turbulence and Service Innovation
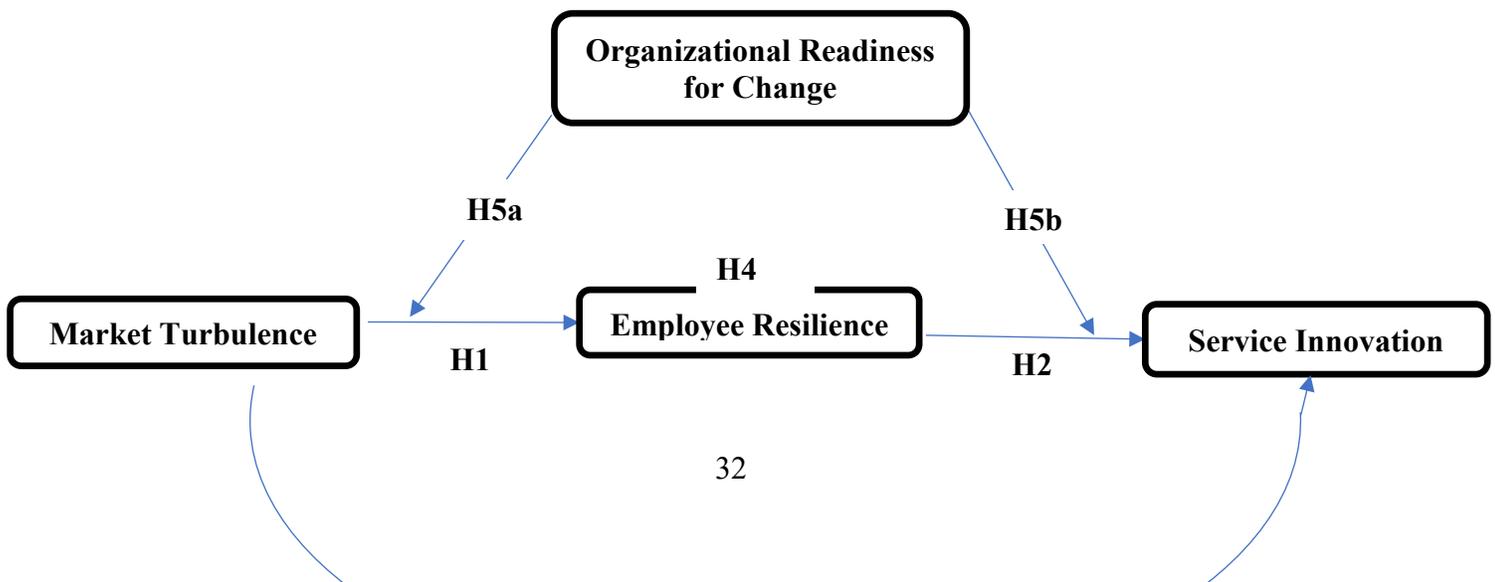
Figure 2

Research Model on Market Turbulence and Service Innovation
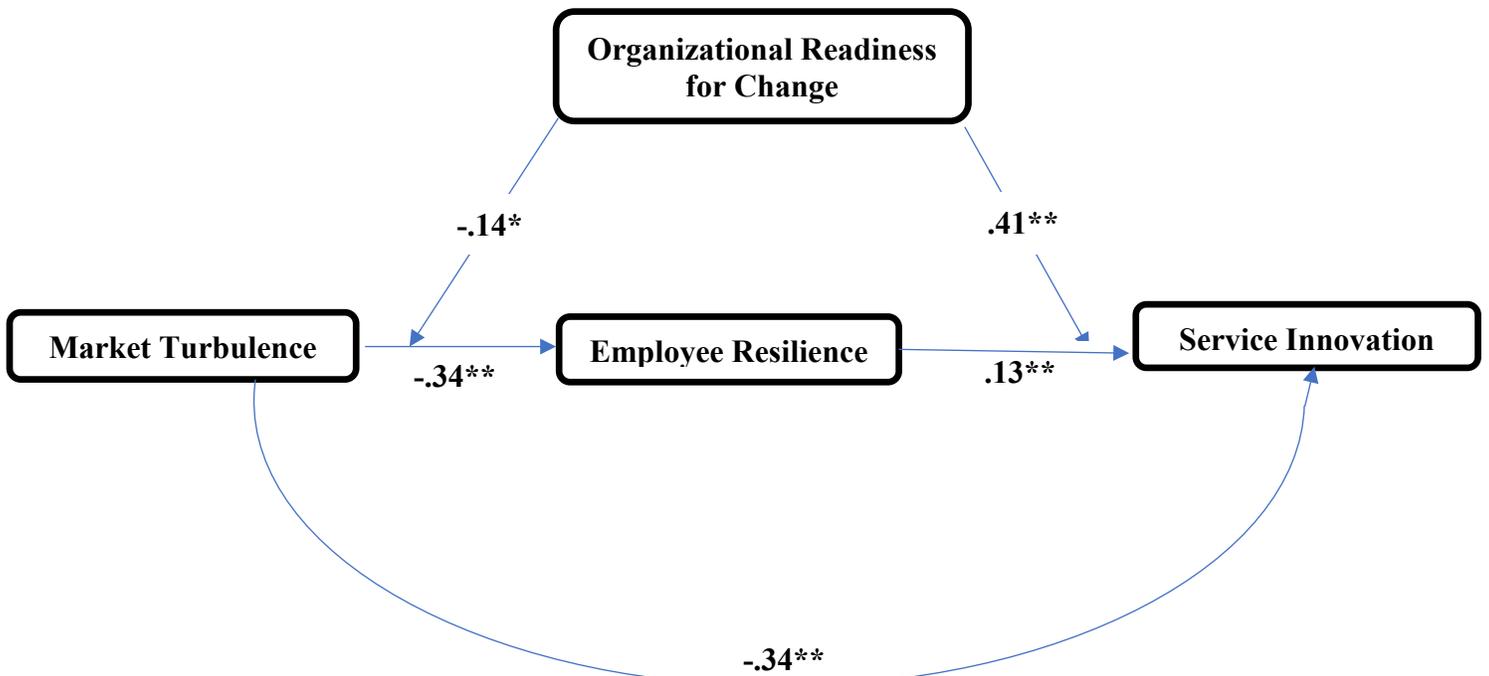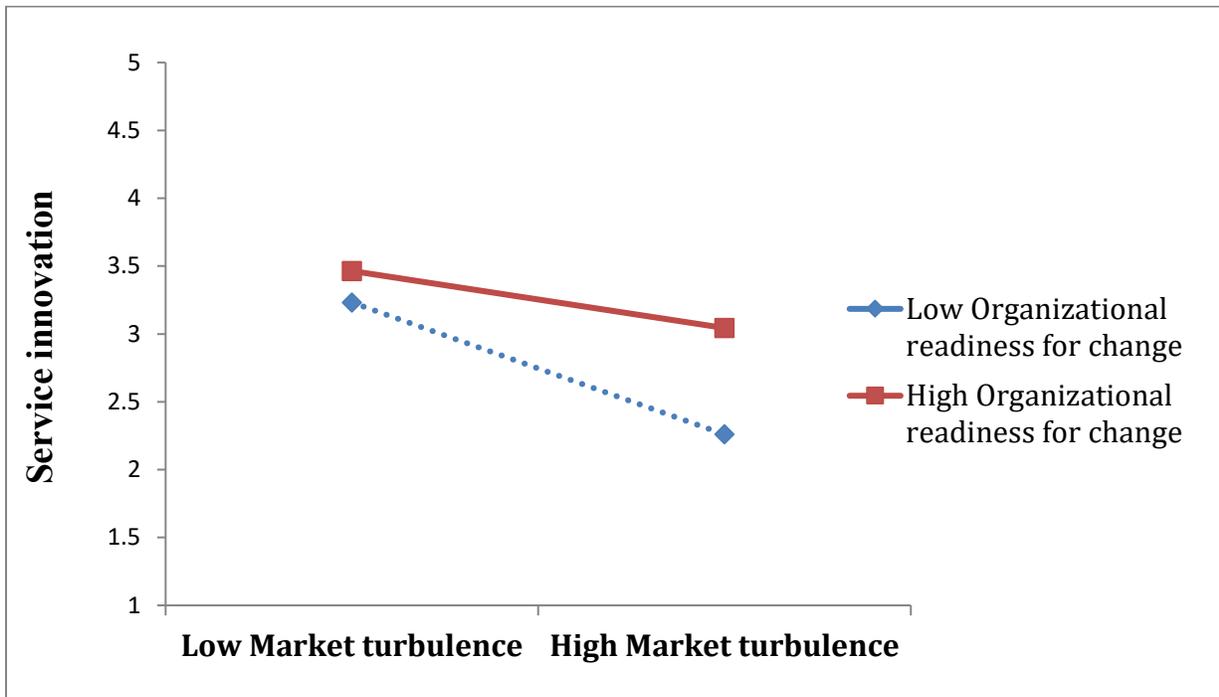

Figure 3

The Moderating Role of Organizational Readiness for Change on Employee Resilience

Figure 4

The Moderating Role of Organizational Readiness for Change on Service Innovation

Table 1

Confirmatory Factor Analysis for the Hypothesized Model

Items	Factor loadings	T-value	AVE	Composite reliability
Market Turbulence:				
Hotel market is changing rapidly	.78	13.88	0.61	0.86
It is very difficult to forecast where the hotel market will be in the next 2-3 years.	.81	14.32		
I believe that our hotel can reduce market-related uncertainties.	.80	NA		
I believe that our hotel can effectively respond to market-related uncertainties.	.72	12.60		
Employee Resilience				
He/she effectively collaborate with others to handle unexpected challenges at work	.65	10.23	0.52	0.90
He/she successfully manage a high workload for long periods of time.	.71	12.73		
He/she resolve crises competently at work	.68	NA		
He/she learn from mistakes at work to improve the way I do my job.	.72	11.26		
He/she re-evaluate my performance continually to improve the way I do my work	.71	11.18		
He/she effectively respond to feedback at work, even criticism.	.74	11.58		
He/she seek assistance to work when I need specific resources.	.73	11.47		
He/she approach managers when I need their support.	.75	11.70		
He/she use change at work as an opportunity for growth.	.76	11.82		
Service Innovation				
In our hotel, innovation is readily accepted in program	.77	15.22	0.64	0.90
Our hotel's top management gives special emphasis to service innovation	.80	16.24		
Our hotel constantly seeks new ways to better service our customers	.82	16.88		
Our hotel is able to modify our current service approaches to meet special requirements from customers	.84	NA		
Compared to our competition, our hotel is able to come up with new service offerings	.77	15.34		
Organizational Readiness for Change				
We fail to anticipate employee resistance to change.	.82	14.46	0.61	0.86
We fail to plan for employee resistance to change.	.80	NA		
It is difficult to gain cross-functional cooperation when my company implements change.	.75	13.33		
We have rigid hierarchical structures that prevent us from implementing change.	.75	13.17		

Table 2
Means, Standard Deviations, and Correlations of Variables

Variable	Mean	SD	MT	ER	SI	ORC
1. Market Turbulence (MT)	5.3	1.10	0.37			
2. Employee Resilience (ER)	5.8	0.74	-.12*	0.27		
3. Service Innovation (SI)	4.6	1.50	-.31**	.14*	0.41	
4. Organizational Readiness for Change (ORC)	4.8	1.10	.15**	.18**	.12*	0.37

Note: Boldfaced diagonal values represent the Square root of AVE; Off-diagonal numbers represent inter-construct correlation values.

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 3
Summary of Model Fit Indices

Model Test	$\chi2$	df	CFI	GFI	TLI	RMSEA
1. Independent model	1892.32	235				
2. Measurement model	298.47	202	.97	.91	.96	.040
3. Hypothesized model (Figure 1)	258.71	133	.96	.91	.95	.056
4. Alternative model: Additional direct paths from market turbulence to service innovation	301.02	135	.97	.92	.96	.068

χ^2 values for the measurement and structural models are significant at p <.01.

Table 4

Main and Interaction Effects of Hypotheses

Constructs	*beta*	t-value	P-Values	Decision
Main effects:				
ER ⟶ MT	-.161	-2.85	.004	Supported
ER ⟶ ORC	.226	3.98	.001	Supported
SI ⟶ ER	.152	2.50	.012	Supported
SI ⟶ ORC	-.152	-2.62	.009	Supported
SI ⟶ MT	-.35	-6.50	.05	Supported
Moderated mediation effects:				
Model 1 (Criterion: ER) ORC*MT	.14	2.47	.014	Supported
Model 2 (Criterion: SI) ORC*ER	-0.65	-1.08	.279	Not supported
Model 3 (criterion: SI) ORC*MT	.15	2.92	.003	Supported

Note: ER – employee resilience; MT- market turbulence; ORC - organizational readiness for change; SI - service innovation.