Antecedents and consequences of service improvisation in the restaurant context

by

Hyunghwa Oh

B.A., Tongmyong University, 2006
M.S., University of Houston, 2009

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Hospitality Management
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Abstract

Service improvisation refers to how service employees deviate from standard manuals to respond immediately to unpredictable situations by using available resources. Service employees often confront unexpected requests and behaviors from customers. Thus, the ability to effectively and quickly respond to these requests can increase customer satisfaction and create a significant competitive advantage for a restaurant. Service improvisation may be important, but research is scarce in the hospitality literature. The purpose of this study was to determine not only antecedents of service improvisation, but also test a double-edged sword effect of service improvisation by proposing a moderator mitigating negative aspects of service improvisation.

A total of 1,148 responses from frontline restaurant employees currently working in non-managerial positions in the U.S. restaurant industry were recruited from Amazon Mechanical Turk, an online survey platform. Previously validated measurement items were carefully selected for the online survey using a thorough literature review. Pre-screening questions and attention check questions were included to improve data quality. Confirmatory factor analysis confirmed reliability and validity of all the scale items. Then, hierarchical multiple regression analysis was used to test hypothesized paths.

Direct relationships among three antecedents and service improvisation were confirmed: servant leadership ($\beta = 0.106$, $p < 0.001$), team-member exchange ($\beta = 0.635$, $p < 0.001$), and internal locus of control ($\beta = 0.184$, $p < 0.001$). Psychological empowerment was identified as a partial mediator between servant leadership and service improvisation ($\beta = 0.802$, CI [0.691, 0.912]), team-member exchange and service improvisation ($\beta = 0.156$, CI [0.108, 0.208]), and internal locus of control and service improvisation ($\beta = 0.216$, CI [0.137, 0.298]). As for the consequences of service improvisation, although service improvisation improved service recovery performance ($\beta = 0.296$, $p < 0.001$), the level of emotional exhaustion ($\beta = 0.288$, $p < 0.001$) also increased concurrently, which, in turn, decreases service recovery performance ($\beta = -0.101$, $p < 0.01$). Support for creativity moderates the link between service improvisation and emotional exhaustion ($\beta = -0.121$, $p < 0.001$). The contributions of the study to theory and practice are discussed along with limitations and recommendations for future research.

Words: 348

Keywords: Service improvisation; servant leadership; team-member exchange; psychological empowerment; service recovery performance; restaurant frontline employee

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Dedication

To my parents and parents-in-laws,

For their prayers and love.

To my dear wife, Inyeong Heo and a gift from God, my son, Elliott Eunchan Oh,

For the unconditional support and sacrifice throughout the journey.

I could not have completed this work without their love.

Chapter 1 - Introduction

Today, hospitality organizations face an increasingly competitive and rapidly changing business environment. Globalization and rapid advances in communication and information technology over the last 20 years have led to a substantial increase in competition among hospitality organizations. These changes in the business environment and increasing competition mean that hospitality organizations attempt to provide improved performance and efficiency at lower costs through innovative service processes. To achieve a competitive advantage, scholars stress not only the role of employees who create novel ideas and solutions that are favorable to their organizations, but also the role of team members working together to implement these creative and novel ideas into their organizations (Hoegl & Parboteeah, 2007; Janssen, Vliert, & West, 2004; Liao, Liu, & Loi, 2010). Hospitality organizations are labor-intensive. Thus, the performance of hospitality organizations is largely affected by employees (Dittmer & Griffin, 1993; Martin & Lundberg, 1992). In particular, employee creativity is a determinant of innovation found to enhance competitive advantage in hospitality organizations (Hon, 2013; Hon & Lu, 2015; Scott & Bruce, 1994). In addition, employees are more creative when they work together as a team, not individually (Anderson, Potočnik, & Zhou, 2014; De Dreu & West, 2001; Hon & Chan, 2013).

Considering the work environment in the hospitality industry, Secchi (2012) introduced the term 'service improvisation' for frontline service employees referring to producing novel solutions that improve the bottom line of an organization, while creatively coping with unexpected situations with limited time and resources. By encouraging service improvisation, hospitality leaders can achieve innovation when employees become actively involved in improvisational behavior (Cunha, Cunha, & Kamoche, 1999; Magni, Palmi, & Salvemini, 2018; Secchi, 2012; Secchi, Roth, & Verma, 2016; Vredenburg, 2017).

In the hospitality industry, service employees often confront interference from customer-induced variability causing significant problems with service outcomes (Bitner, Booms, & Tetreault, 1990; Frei, 2006). However, hospitality leaders find it almost impossible to provide employees training sessions that cover all possible situations. Service improvisation may overcome service variations from customer-to-customer (Cunha, Rego, & Kamoche, 2009; Secchi, 2012; Secchi et al., 2016). While providing consistent service is important in satisfying customers, when employees improvise service and depart from scripted guidelines to manage the variability between customers creatively, they can increase customer satisfaction (Secchi et al., 2016).

For instance, a shared picture on social media described an employee of Wendy's who went outside to pick-up a large umbrella from a table to walk an elderly man to his car in a heavy rainstorm (Ciotti, 2016). The employee was creative enough to use the resources available, resulting in excellent customer service with great empathy. In another example, a Panera Bread manager prepared a bowl of clam chowder after getting a phone call from a grandson of an elderly woman who was hospitalized and had been diagnosed with stage four pancreatic cancer. While the soup was not supposed to be sold in the store that day, a manager prepared it along with a box of cookies for the elderly woman in the hospital. This story was shared on social media and received half a million likes, which may significantly affect the brand reputation (Stampler, 2012). These improvisations of frontline employees in the hospitality industry improve customer attitudes toward service firms (Secchi et al., 2016).

The service improvisation concept is an emerging concept in the hospitality literature, which originated from improvisation in the organizational and management literature. Only a few studies have explored the antecedents and consequences of service improvisation (e.g., Secchi et al., 2016). Therefore, the concept of service improvisation warrants further investigation to provide a better theoretical understanding of service improvisation and its practical application in hospitality.

First, the current study attempts to determine how hospitality managers can improve employee service improvisation. The current study proposes possible antecedents of service improvisation for non-managerial frontline employees by focusing on three organizational aspects: (1) leadership style (i.e., servant leadership), (2) social exchange quality (i.e., team-member exchange), and (3) individual factors (i.e., internal locus of control).

Second, this study investigates whether service improvisation leads to favorable work-related outcomes. Previous scholars have found service improvisation is related to positive work-related outcomes (e.g., Gao, Song, & Jianing, 2015; Hodge & Ratten, 2015; Secchi et al., 2016). Other scholars, however, have also addressed the negative side of service improvisation: reduced job satisfaction (Hmieleski & Corbett, 2008), anxiety (Cunha et al., 1999), and emotional exhaustion (Hatch, 1999). Service improvisation without clear rules and limits may lead to undesirable variations in service delivery (Cunha et al., 2009).

To address these inconsistent results, this study develops and empirically tests a conceptual model of service improvisation that integrates both positive (i.e., service recovery performance) and negative effects (i.e., emotional exhaustion). On the one hand, this study contends that service improvisation helps frontline employees enhance service recovery performance because it requires the sort of prompt reaction that is a key to service recovery

(Cunha et al., 2009). On the other hand, excessive service improvisation is more likely to contribute to emotional exhaustion among employees and thus decreasing service recovery performance. On this, scholars have stated that improvisation is not inherently good or bad (Hmieleski & Corbett, 2008; Vera & Crossan, 2004, 2005). Thus, the direct relationship between service improvisation and both positive and negative outcomes was explored.

Although understanding improvisation without ignoring the negative outcomes is critical, little empirical research focuses on the negative outcomes of improvisation and how the negative side of improvisation can be minimized. Based on the conservation of resource (COR) theory, losing resources (e.g., energies) can lead to emotional exhaustion, which can be reduced by achieving and/or protecting job resources employees value. Thus, this study examined the buffering role of support for creativity on the relationship between service improvisation and emotional exhaustion, proposing support for creativity as a tool that diminishes negative outcomes.

Statement of Problem

In the hospitality industry, customers continuously introduce several variabilities to service employees affecting service outcomes (Bitner et al., 1990; Frei, 2006); thus, a standard operating procedure cannot fit for all customers. Although a standard operating procedure is important in providing a guideline for consistent service, the standard operating procedure can be easily adopted by competitors, and does not address all possible customer-induced variability. In this regard, Secchi (2012) proposed service improvisation as a key factor to cope with the customer-induced variability. In other words, building on already existing scripts, service improvisation allows service employees to act promptly and apply their creative ideas immediately to cope with unexpected situations, even if there are limited resources on hand.

Research gaps in the improvisation literature are still prevalent (Magni, Proserpio, Hoegl, & Provera, 2009; Magni et al., 2018). Although individuals are important to service improvisation, little research has focused on individual level variables to explain the determinants of service improvisation (Kamoche, Cunha, & Cunha, 2003; Magni et al., 2018). In particular, studies of individual and team interaction processes and how they affect improvisation are limited (Magni et al., 2009; Vera & Crossan, 2005).

Although more and more researchers call for further investigation into the antecedents of improvisation and both individual and team attributes (Kamoche et al., 2003; Magni et al., 2018), as of today, only a few empirical studies have actually examined the antecedents. Magni et al. (2009) found that team behavioral integration and team cohesion were antecedents of improvisation, and Magni et al. (2018) found that innovative team climate, proactive attitudes, and risk aversion were also antecedents of improvisation. In addition, Secchi (2012) found that experimental service design strategy and psychological empowerment were antecedents of service improvisation.

Most research on improvisation has focused on outcomes of improvisation: innovation effectiveness (Kamoche & Cunha, 2001), new venture performance (i.e., sales growth) (Hmieleski & Corbett, 2008), hotel customer satisfaction (Secchi et al., 2016), team innovation (Vera & Crossan, 2005), and new product development (Akgün, Byrne, Lynn, & Keskin, 2007; Gao et al., 2015). Other scholars have examined or explored the negative outcomes of improvisation, which include reduced job satisfaction (Hmieleski & Corbett, 2008), increased anxiety (Chunha et al., 1999), emotional exhaustion, and stress (Hatch, 1999).

These mixed outcomes have led to inconclusive results (Gao et al., 2015; Hmieleski & Corbett, 2008; Vera & Crossan, 2005), possibly because improvisation forces individuals to decide to abandon established routines to respond to emergent events; this, in turn, produces risks (Magni et al., 2018). Although departing from routines to cope with unexpected situations could have either positive or negative consequences (Vera & Crossan, 2005), few studies have considered both positive and negative outcomes of service improvisation simultaneously. In addition, only a few empirical studies examined the negative outcomes of improvisation (e.g., Hmieleski & Corbett, 2008). Recently, Magni et al. (2018) encouraged future research to investigate potential moderating effects which minimize negative outcomes of service improvisation. However, there are no studies suggesting how to minimize negative outcomes of service improvisation in the hospitality literature.

By investigating service improvisation in different industries, Secchi (2012) found the effects of service improvisation may vary. However, only a few studies have investigated the possible antecedents and consequences of service improvisation in hospitality. Secchi et al. (2016) pointed out that research exploring improvisation in the hospitality industry should broaden our understanding of the effects of improvisation in a daily operation, instead of merely focusing on innovative outcomes.

Although some empirical research on improvisation has been published, scholars have noted that improvisation research is still immature (Kamoche & Cunha, 2001; Magni et al., 2018; Secchi et al., 2016; Vera & Crossan, 2005). Considering the research gaps, this research explored the possible antecedents (servant leadership, team-member exchange, and internal locus of control) and consequences (emotional exhaustion, service recovery performance) of service improvisation in the hospitality context. Further, the role of support for creativity on the consequences was explored.

Purpose of the Study

The purpose of this study was to determine antecedents and consequences of service improvisation. Specifically, four antecedents of service improvisation were tested: servant leadership, team-member exchange, locus of control, and psychological empowerment. As consequences of service improvisation, this study investigated two variables: emotional exhaustion and service recovery performance. Further, support for creativity was included as a moderator that reduces the effect of service improvisation on emotional exhaustion. The study explored how and why work resources (servant leadership, team-member exchange) and a personal resource (internal locus of control) encourages service employee improvisational behavior in the restaurant setting. Both the positive and negative outcomes of service improvisation were explored, specifically, how service improvisation can resolve service failures as a positive effect while simultaneously examining the relationship with emotional exhaustion as a negative effect. Support for creativity was examined as a buffer between service improvisation and emotional exhaustion.

The specific objectives of this study are as follows:

1. To examine the direct effect of servant leadership on service improvisation.
2. To examine the direct effect of team-member exchange on service improvisation.
3. To examine the direct effect of internal locus of control on service improvisation.
4. To test psychological empowerment as a mediator between servant leadership and service improvisation.

5. To test psychological empowerment as a mediator between team-member exchange and service improvisation.
6. To test psychological empowerment as a mediator between internal locus of control and service improvisation.
7. To investigate the direct effect of service improvisation on service recovery performance.
8. To investigate the direct effect of service improvisation on emotional exhaustion.
9. To investigate the direct effect of emotional exhaustion on service recovery performance.
10. To test support for creativity as a moderator in the relationship between service improvisation and emotional exhaustion, specifically that the relationship is weaker for service employees with high support for creativity.

Significance of the Study

Frontline employee service improvisation is critical in gaining competitive advantage and achieving service innovation, especially in the U.S. restaurant market. The results of this study provide practical insights and useful guidelines to restaurant practitioners in designing a comprehensive framework for service improvisation. Specifically, this study examined three organizational aspects of service improvisation: leadership, social exchange, and individual employee characteristics. In leadership, servant leadership promoted service improvisation because servant leadership encourages self-directed decision making. In social exchange, team-member exchange enhanced service improvisation through increased mutual trust among team members. In the individual aspect, internal locus of control fostered service improvisation by allowing employees to consider demanding situations as manageable challenges. Although possible antecedents of service improvisation have been discussed in previous studies (e.g., Kamoche et al., 2003; Magni et al., 2018; Secchi, 2012; Secchi et al., 2016), little research has used empirical research to investigate antecedents of service improvisation. This study contributes to the hospitality literature by revealing the framework of service improvisation and adding empirical results.

Previous literature suggested leadership styles affect subordinate service improvisation, and servant leadership encourages an experimental culture and minimal structure within the organization, both of which are required for service improvisation (Cunha et al., 1999; Cunha, Kamoche, & Cunha, 2003). Servant leaders create an experimental culture that promotes service improvisation (Cunha et al., 1999) by putting more value on the process of work than the outcomes of work, encouraging subordinates to try more new ideas (Bilsen, 2010; Cunha et al., 2003). Minimal structure encourages improvisation through indirect control (Crossan, 1998;

Cunha et al., 1999), which is a characteristic of servant leadership (Cunha et al., 2003; Liden, Wayne, Zhao, & Henderson, 2008). Unlike previous conceptual papers, this study provides empirical evidence by revealing a direct link between servant leadership and service improvisation.

In addition to the leadership perspective, the current study proposes that servant leadership alone will not effectively encourage service improvisation. Thus, this study proposes team-member exchange (TMX) as a possible antecedent of service improvisation in team social exchanges. High quality TMX indicates strong mutual trust and support among team members, which is the key to promoting improvisation (Crossan, White, Lane, & Klus, 1996; Hoegl & Wagner, 2005; Scott & Bruce, 1994). This study thus provides empirical evidence linking TMX and service improvisation in the hospitality context.

Further, internal locus of control as an individual factor affecting service improvisation was examined. Cunha et al. (1999) noted that improvisation is highly associated with individual willingness to take risks, a characteristic of internal locus of control. Individuals who have high internal locus of control tend to take more risks or welcome unexpected tasks, perceiving them as manageable challenges (Parkes, 1984). The results of this study provide evidence of a positive relationship between internal locus of control and service improvisation.

Although direct links between the three proposed antecedents with service improvisation are pivotal to understanding determinants of service improvisation, finding the reason these antecedents foster service improvisation provides more profound information for designing a service framework that encourages service improvisation.

Previous studies suggest psychological empowerment is a necessary condition for service improvisation (e.g., Secchi 2012; Vredenburg, 2017). Using the lens of the Job-Demand and

Resource model, the current study expands on previous studies by adding empirical evidence of psychological empowerment as a mediator in the relationship among the three antecedents (i.e., servant leadership, team-member exchange, and internal locus of control) and service improvisation. Studying this mediator responds to calls to investigate the mechanisms through which the team affects service improvisation (Kamoche et al., 2003) and reveals the underlying mechanism explaining how and why servant leadership, team-member exchange, and internal locus of control lead to service improvisation in hospitality.

This research also integrates the double-edged sword effect of service improvisation in restaurants, providing not only a novel approach that addresses inconsistent findings in the service improvisation literature but also emphasizes a new perspective to better explain the effect of service improvisation in the workplace. This contributes to extant literature by examining the relationship between service improvisation and service recovery performance, taking into account employee emotional exhaustion as a negative effect of service improvisation. The results of this study confirmed the double-edged sword effect of service improvisation. Furthermore, the results of support for creativity as a moderator between service improvisation and emotional exhaustion added empirical evidence and a practical solution, confirming one way to minimize the negative outcome of service improvisation.

Limitations of the Study

Self-reported questionnaires may lead to common method bias with differing results among the study variables. Although this study included social desirability bias as a control variable for hypotheses testing, collecting data from multiple sources may be necessary. For example, employee reported service improvisation levels may differ from supervisor ratings of employee service improvisation level (Secchi et al., 2016). Similarly, self-reported levels of employee service improvisation may differ from other coworker ratings of service improvisation to that employee. Although data in the current study were collected with special attention to confidentiality to minimize this limitation, multiple sources of data are recommended.

Moreover, generalizing the findings outside the restaurant context is difficult because the data was collected only from frontline employees working in restaurants in the U.S. Therefore, the results of this study should be interpreted with caution. More studies in other settings would be needed to confirm the results of the proposed relationships in this study such as the hospitality industry where the role of service employees largely affects the quality of customer experience, including conventions and events, lodging, theme parks, airlines, travel agencies and more. A cross-cultural study of service improvisation is recommended comparing two groups having collectivism and individualism respectively.

Although the current study used predetermined latent factors as study variables, team-member exchange and internal locus of control were problematic in satisfying convergent validity and discriminant validity. There were about 46 measurement items for antecedent study which may trigger unnecessary cross-loadings among five latent factors. Moreover, measurement items between team-member exchange and service improvisation may partially share a similar dimension between bricolage in service improvisation and a dimension of helping other team members in team-member exchange. Therefore, it would be beneficial for other scholars to develop and/or refine the instruments used to measure the constructs in the restaurant industry, including team-member exchange and internal locus of control.

The number of customers restaurant employees served was included as a control variable which may affect service improvisation. In other words, this study assumed that the more customers employees served, the less likely it was for the employees to improvise. However, the workload intensity that employees feel may vary depending on how employees perceive a situation, which is possibly influenced by their backgrounds. For example, an employee with extensive restaurant work experience may be able to handle more customers with improvisation. Thus, the question, “How busy are you at work?” may be a better alternative to illustrate employee perception, rather than the number of customers an employee has served.

This study measured all the proposed variables in the individual level of perception. Therefore, it may not be able to explain a group level phenomenon that may be more appropriate in explaining the proposed model. In particular, factors including servant leadership, team-member exchange, and support for creativity should be measured as a group level factor such that scholars can provide more profound implications to explain the organizational phenomena (Kozlowski & Klein, 2000). As such, scholars may be able to explain service improvisation with considering both individual characteristics and the team climate.

The results showed partial mediating effects of psychosocial empowerment between proposed three antecedents (servant leadership, team-member exchange, and internal locus of control) and service improvisation. Therefore, finding other mediating variables that possibly fully mediates the proposed relationship is recommended to clarify the relationship between the three antecedents and service improvisation. For example, individual risk aversion attitude and proactive attitude may be possible mediators for future studies. Individuals having a strong risk-averse attitude toward a situation tend to interpret that situation unfavorably and withdraw from such situations (Cable & Judge, 1994). Individuals with a strong proactive attitude are willing to resolve problems (Greenglass, Schwarzer, Jakubiec, Fiksenbaum, & Taubert, 1999) and actively look for possible solutions rather than passively follow the current routines (Crant, 2000).

Definition of Terms

Service Improvisation: Service improvisation competence refers to “the systemic ability of the service firm’s employees to deviate from established processes and routines in order to timely respond to unexpected events, using available resources” (Secchi, 2012, p. 6). Secchi (2012) suggested three sub-dimensions of service improvisation: spontaneity, creativity, and bricolage because not all creative behaviors can be considered improvisation (Secchi, 2012). Creative behaviors categorized as service improvisation must manage an unfamiliar event by producing novel or original solutions (Vera & Crossan, 2005). Spontaneity refers to minimal response times for resolving unexpected situations. Finally, in bricolage, employees rearrange resources by using currently available resources to respond to unpredictable situations (Secchi, 2012).

Servant Leadership: Servant leadership is a leadership practice primarily focusing on the interests of subordinates before the self-interest of leaders so subordinates can grow by achieving their own goals in addition to organizational goals, which in turn leads to career success (Greenleaf, 1977). In other words, servant leaders “want their subordinates to improve for their own good, and view the development of followers as an end in and of itself, not merely a means to reach the leader's or organization's goals” (Ehrhart, 2004, p. 69).

Team-member Exchange: Team-member exchange refers to lateral social exchanges between a member and his or her focal groups (Seers, 1989). In other words, the TMX quality represents the degree of openness and support from focal group members (Liao, Yang, Wang, Drown, & Shi, 2013). The perceived TMX quality influences psychological connections and effectiveness in coworker relationships at work (Kahn, 1992; Seers, 1989).

Internal Locus of Control: Internal locus control is defined as “the disposition to perceive one’s reinforcements as consequences of one’s own behavior” (MacDonald, 1971, p. 141) rather than extrinsic factors (i.e., external locus of control).

Psychological Empowerment: Psychological empowerment refers to psychological cognition reflecting individual desires and motivation that enable one to act. Psychological empowerment comprises four different psychological cognitions: meaning, competence, self-determination, and impact (Spreitzer, 1995; Thomas & Velthouse, 1990). Meaning refers to the balance between individual beliefs and roles at work. Competence is defined as individual beliefs in the ability to perform required tasks. Self-determination refers to experiencing “a sense of choice in initiating and regulating one’s own actions” (Deci, Connell, & Ryan, 1989, p. 580). Impact is the extent to which individuals can affect work outcomes (Spreitzer, 1995).

Service Recovery Performance: Service recovery performance refers to “the behaviors in which customer service employees who directly handle customer complaints engage to recover customer satisfaction and loyalty after service failures” (Liao, 2007, p. 476).

Emotional Exhaustion: Emotional exhaustion refers to a state of depletion of physical and emotional resources caused by excessive workloads (Maslach, 1982; Wright & Cropanzano, 1998).

Support for Creativity: Support for creativity is “the extent to which individuals aid and encourage employees’ creative performance” (Madjar, Oldham, & Pratt, 2002, p. 757).

Chapter 2 - Review of Literature

This chapter provides a review of the literature on four variables of antecedents for service improvisation: 1) servant leadership, 2) team-member exchange, 3) internal locus control, and 4) psychological empowerment. The review also covers two variables of the consequences of service improvisation: 1) emotional exhaustion and 2) service recovery performance. Further, support for creativity was explored as a moderator in promoting the positive consequences of service improvisation and reducing the negative consequences of service improvisation. More specifically, in the review of literature, conceptualization for each construct, introduction of overarching theories, and hypothesis development will be presented.

Service Improvisation

The term service improvisation competence is defined as the systematic ability of service employees to deviate from standardized training set by service organizations so they can promptly respond to unexpected situations producing novel solutions or ideas using available resources (Secchi, 2012). Secchi (2012) noted that if individuals have improvisational competence, they are likely to exhibit improvisational behavior.

Secchi (2012) suggested creativity, spontaneity, and bricolage as sub-dimensions of service improvisation. The theoretical background of these three sub-dimensions is derived from the study of improvisational performers in theater and jazz who develop their skills through experience, practice, and knowledge (Crossan, 1998; Cunha et al., 1999; Weick, 1998).

Service improvisation requires creative behavior by service employees who must handle unfamiliar events by coming up with novel or original solutions (Vera & Crossan, 2005). In a hospitality organization, generating creative solutions often entails modifying established processes or routines to achieve customer satisfaction. Secchi (2012) adopted an outcome-based operational definition of creativity, first developed by Oldham and Cummings (1996). In this perspective, creativity or creative performance refer to “products, ideas, or procedures that satisfy two conditions: (1) they are novel or original and (2) they are potentially relevant for, or useful to, an organization” (Oldham & Cummings, 1996, p. 608). In this sense, creativity is a foundation of service improvisation, responding to the question of what class of behaviors can be considered components of the service improvisation competence construct (Secchi, 2012).

Second, service improvisation must include spontaneity, referring minimal response time for resolving unexpected situations (Secchi, 2012). Spontaneity highlights actions that must not be pre-planned (Secchi, 2012), and the response time must be instant (Cunha et al., 1999). When improvising, people must react immediately to an unknown event (Crossan, 1998). Thus, the sub-dimension of spontaneity focuses on unplanned actions in unexpected situations even though improvisors may still use a fundamental repertoire for their actions to be effective (Secchi, 2012). For example, to resolve issues with customers, service employees can spend time to consult with supervisors or coworkers and even search for information themselves to resolve problems. These responses may stimulate creative solutions, but these planned actions cannot be improvised because they lack spontaneity (Secchi, 2012). Thus, Secchi (2012) included spontaneity as a temporal element for service improvisation in line with previous research from Moorman and Miner (1998b) and Crossan (2005).

Finally, Cunha et al. (1999) proposed the concept of bricolage as a sub-dimension of improvisation. The bricolage aspect of service improvisation explains the ability of an employee to rearrange resources using whatever is available to respond to an unpredicted situation (Secchi, 2012). Employees must be familiar with their tasks and skillful to effectively rearrange currently available resources at a moment when planning and executing happen at the same time (Weick, 1993b). Thus, bricolage addresses the importance of rearranging resources that can be both tangible (e.g., funds) and/or intangible (e.g., social support) to manage an unexpected situation (Secchi, 2012). In an environment where an individual or group is under time pressure with limited available resources to cope with an unexpected situation, the bricolage aspect of improvisation, rearranging available resources, becomes critical (Ciborra, 1999; Cunha et al., 1999; Weick, 1998). Therefore, improvisors must be familiar and skillful employees who know how to combine those resources to solve a problem (Weick, 1993b).

Discriminant Validity

Issues of discriminant validity of service improvisation are explored in this section. Other scholars have explored improvisation as a distinct construct from other established constructs like creativity, adaptation, innovation, and autonomy.

Cunha et al. (1999) suggested improvisation had those associated constructs in different form, including creativity, adaptation, and innovation. In an organizational study, creativity or organizational creativity as a subset of innovation construct is defined as ‘‘the creation of a valuable, useful new product, service, idea, procedure or process by individuals working together in a complex social system’’ (Woodman, Sawyer, & Griffin, 1993, p. 293). That is, creativity labels creative behaviors or outcomes from creative behaviors in the context of organization (Arieti, 1976; Woodman et al., 1993).

Creativity and improvisation are similar in that individual actions must be novel (Cunha et al., 1999). However, creativity differs from improvisation in that creativity can result from a well-organized plan and optimal resources in producing novel ideas and solutions (Amabile, 1998). Thus, creating a new idea (i.e., absolutely novel) can occur during improvisation (Cunha et al., 1999). However, improvisational performance can be relatively novel in the sense that it has happened before, but not used by the specific improvisor in a particular situation where service improvisation was needed (Moorman & Miner, 1998a).

Adaptation involves modifying undesirable working conditions (Hanisch & Hulin, 1990, 1991). According to the adaptation cycle model, employees appraise and behave to alleviate anxiety and stress derived from undesirable working conditions (Rosse & Miller, 1984). In terms of modifying a course of action, adaptation can be part of the service improvisation construct (Cunha et al., 1999), but adaptation differs from improvisation in that it can be planned in advance of its execution (Hamel & Prahalad, 1996). Furthermore, adaptation may be ineffective for a situation where immediate responses are required to cope with threatening environments such as complex and unpredictable external environments (Crossan et al., 1996; Perky, 1991) and even result in negative outcomes (Boswell, Olson-Buchanan, & Harris, 2014).

Innovation refers to ‘‘the adoption of any device, system, process, problem, program, product or service that is new to the organization’’ (Dougherty 1996, p. 424). Scholars view innovation as implementing creative ideas. Woodman et al. (1993) stated that creativity is a subset of innovation, which is also a subset of organizational change. Amabile, Conti, Coon, Lazenby, and Herron (1996) viewed creativity at the individual level, but innovation at the organizational level considers outcomes of creativity implemented in the organization. Innovation is then characterized as a subset of an even broader construct of organizational change. Although organizational change can include innovation, much organizational change is not innovation. Similarly, even though creativity may produce a new product, service, idea, or process that is implemented through innovation (cf. Amabile, 1988), innovation can also include adapting preexisting products or processes or using those created outside the organization. It is similar to improvisation in focusing on novelty; however, innovation can be scheduled and delayed, preparing maximum resources to be in place as with the creativity and adaptation constructs (Cunha et al., 1999).

Vredenburg (2017) distinguished autonomy from improvisation by introducing three distinctive constructs as building blocks: autonomy, empowerment, and improvisation. Autonomy is extent to which employees control their actions at work and is a structural aspect that allows employees to be empowered as motivation, which in turn explains improvisation as a behavioral aspect (Vredenburg, 2017). Therefore, fostering a work environment where autonomy is encouraged is a way to enhance improvisation.

Measurements

The term “Service Improvisation Competence” was introduced in 2012 by Secchi, who divided it into three sub-constructs: creativity, spontaneity, and bricolage. Secchi (2012) created measurement items merging different theoretical foundations into service settings. Creativity, spontaneity, and bricolage were operationalized in a service environment “by defining creativity as the deviation from standardized routines and processes, spontaneity as the perceived immediacy of the response to a disruption introduced by a guest, and bricolage as the use of resources that were not specifically designed for the actions performed to respond to the disruption” (Secchi, 2012, p. 164). Service Improvisation Competence comprises these three sub-dimensions as second-order latent factors, satisfying reliability requirements and the validity of the scale. Secchi’s (2012) questionnaire on service improvisation competence measures service improvisation behaviors to explain competence in service improvisation.

Before this concept was introduced to the hospitality literature, scholars in management and organizational behavior discussed the construct of organizational improvisation. Moorman and Miner (1998a, p. 1) defined improvisation as “a convergence of composition and execution.” In line with this definition, measuring improvisation focused on actions and was measured on a seven-point semantic differential scale with three questions: “1. Figured out action as we went along/Action followed a strict plan as it was taken; 2. Improvised in carrying out this action/Strictly followed our plan in carrying out this action; and 3. Ad-libbed action/Not an ad-libbed Action” (Moorman & Miner, 1998a, p. 10). This measurement provided a standardized measure of improvisation focusing on a convergence of composition and execution (Cunha et al., 1999; Moorman & Miner, 1998a), but it measured only a partial aspect of improvisation (Cunha et al., 1999). Akgün et al., (2007) adopted this scale to measure team improvisation using a 10-Likert type scale.

Then, Johnson and Rice brought the concept of “reinvention” into organizational improvisation, explaining ‘‘the number of innovation components over and ‘above’ a standard configuration’’ (1984, p. 170). In other words, using a jazz metaphor, they count every single variation departing from original scripts or notes performed by a musician (Cunha et al., 1999). These authors approached measuring organizational improvisation by focusing on the content difference, not the temporal difference between planning and performance (Cunha et al., 1999).

In addition, these authors addressed possible issues in measuring bricolage as a sub-dimension of the organizational improvisation construct (Cunha et al., 1999). Johnson and Rice (1984) measured the organization, group, and individual levels of ability to produce the best outcome using available resources. Thus, performing at a higher level of bricolage means making more out of available resources (Cunha et al., 1999).

Later, Secchi (2012) measured improvisation by service employees and named it service improvisation competence. Before Secchi's (2012) attempt to measure improvisation, little research attempted measuring improvisation, and no research of any attempt was found in hospitality organization (Magni et al., 2009; Moorman & Miner, 1998a; Vera & Crossan, 2005). Secchi (2012) explored and combined three existing dimensions from organizational improvisation to develop the construct and theory, so service improvisation is not a new concept. However, its appearance in the hospitality literature is significant given that organizational improvisation appears only infrequently in the literature from other fields (Secchi, 2012).

Antecedents of Service Improvisation

Improvisation research in the field of general management has noted one key to encouraging improvisation is related to encouraging a culture that encourages more freedom of action and minimal structure with less control and more autonomy at work (Crossan, 1998; Cunha et al., 1999).

However, few empirical studies ever examined the antecedents of improvisation (Magni et al., 2018). For example, team behavioral integration and team cohesion were found to be antecedents of improvisation (Magni et al. 2009). Team behavioral integration refers to the extent to which team members interact and exchange information (Hambrick, 1994). High levels of team behavioral integration are distinguished by effective information exchange among team members which leads, in turn, to gaining work-related information, knowledge, and skills (Berg et al., 1982, Faraj & Sproull, 2000). Team cohesion is defined as the level of social relationships among team members (Hogg, 1992, Zaccaro & Mc Coy, 1988). Magni et al. (2009) argued that team cohesion encourages team members to act spontaneously to not let their team members down.

In addition, innovative team climate, proactive attitude, and risk aversion were found to be antecedents of improvisation (Magni et al., 2018). Innovative team climate refers to a shared belief among team members in generating and implementing new ideas (Van der Vegt, Van de Vliert, & Huang, 2005). Magni et al. (2018) argued that an innovative team climate allows members to find new solutions spontaneously and creatively because of the creative aspect of improvisation. In addition, a proactive attitude was positively related to improvisation while risk aversion was negatively associated with improvisation (Magni et al., 2018). A proactive attitude refers to an individual disposition favorable to action in confronting obstacles in achieving established goals (Magni et al., 2018). Individuals with high risk aversion tend to evaluate situations negatively and withdraw from situations that involve risks and uncertainties (Allen, Weeks, & Moffitt, 2005). Magni et al. (2018) argued that improvisation involves risks and uncertainties; thus, individuals with a high level, proactive attitude and low level, risk aversion are more likely to engage in improvisation.

In the hospitality literature, Secchi (2012) stated that service organizations must have a service delivery system that not only allows them to cope effectively with customer-induced uncertainty but also must nurture service improvisation competence among employees. To encourage service improvisation, the service delivery system within an organization must embrace customer preferences, behaviors, and expectations to manage uncertainty introduced by customers (Frei, 2006; Secchi, 2012). Voss, Roth, and Chase (2008) suggested using "Strategic Operations Design Choices" including stageware (i.e., physical environment), orgware (i.e., human resource policies), linkware (i.e., systems that deliver information via organizations), and customerware (i.e., design of encounters between service employees and customers), and Secchi (2012) proposed "strategic operations design choices" as a core value for service organizations wanting to encourage service improvisation among service employees. Specifically, stageware shows how the physical service environment significantly affects employee and customer perceptions and behavior (Bitner, 1992; Hu & Jasper, 2006; Voss et al., 2008). In other words, as Secchi (2012) suggested, the physical service environment allows employees to access resources and increases service improvisation. Orgware shows how the management system and policies of the organization affect employee work behavior (Hartline & Ferrell, 1996; Schneider & Bowen, 1993; Voss et al., 2008). That is, as Secchi (2012) suggested, orgware encourages service improvisation if it is designed to encourage trial and error activities by employees and to promote empowerment, provide incentives, offer training, and encourage hiring employees with a service attitude (Secchi, 2012).

Linkware encompasses the choices in distributing information that determines the effectiveness of information exchange within organization (Secchi, 2012). Secchi (2012) suggested that linkware enhances vertical and horizontal exchanges of information and increases service improvisation.

Finally, customerware refers to "the set of choices relating to creating and managing specific customer touch points, where customers interact with the delivery system service" (Voss et al., 2008, p. 251). Secchi (2012) suggested that customerware allows employees to work under minimal scripting to provide service and increase service improvisation.

Consequences of Service Improvisation

The effects of improvisation on various performance variables are inconsistent. On the positive side, Vera and Crossan (2005) found that improvisation enhances innovation when team members show strong expertise, teamwork skills, real-time information and communication, and experimental culture.

A study of a sample of employees in technology-based companies found that improvisation is positively associated with speed-to-market and time effectiveness (Akgün et al., 2007). Improvisation fosters new product development, especially in turbulent environments, which leads to faster launching of new products (Akgün et al., 2007).

Hodge and Ratten (2015) noted that organizational performance was enhanced through improvisation, bringing confidence to employees handling unexpected issues. A recent meta-analysis investigating the link between improvisation and various performance outcomes (e.g., job performance, innovative performance) revealed that employees under collective cultural working environment (e.g., Japan) have a stronger link between improvisation and performance than employees in individualistic workplaces (e.g., the United States) (Gao et al., 2015). This may be explained by bricolage in service improvisation in which the ability to maximize available resources on hand helps in overcoming unexpected situations. Thus, the maximum utilization of available resources may be realized better in collective working environments than individual working environments.

A study of hotel employees, with both managers and line workers, found that service improvisation improved hotel guest satisfaction (Secchi et al., 2016). Specifically, service improvisation at lower class hotels improved guest satisfaction more than higher class hotels; service improvisation at lower class hotels helps employees satisfy customers, in part, because they do not have high expectations of service, unlike customers in higher class hotels (Secchi et al., 2016).

A few empirical tests of this negative link have been reported in the literature, including reduced job satisfaction (Hmieleski & Corbett, 2008), and delayed financial performance (Bergh & Lim, 2008). Although improvisation literature has focused heavily on the positive results of service improvisation, scholars have some concerns about the negative results of service improvisation such as increased anxiety (Cunha et al., 1999), and emotional exhaustion and stress (Hatch, 1999). These negative results may arise when employees must improvise excessively, which may trigger psychological strain. These mixed results correspond to what earlier scholars have said: “improvisation is not inherently good or bad” (Hmieleski & Corbett, 2008; Vera & Crossan, 2004, 2005).

Antecedents of Service Improvisation

Servant Leadership

Robert Greenleaf first used the term servant leadership and the quote below is the most famous quote in servant leadership literature.

. . . . It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead. . . . The best test, and difficult to administer is this: Do those served grow as persons? Do they, *while being served*, become healthier, wiser, freer, more autonomous, and more likely themselves to become servants? And, what is the effect on the least privileged in society? Will they benefit, or at least not further be deprived? (Greenleaf, 1977, p.7).

According to Greenleaf (1977), a servant leader has an innate characteristic related to serving, to helping others first, unlike a leader who is leader first. The core concept of Greenleaf's servant leadership centers on going beyond a leader's self-interest (Greenleaf, 1977). Thus, servant leadership is focused more on the interests of subordinates than self-interest, promoting success among subordinates and growth in their careers (Greenleaf, 1977).

Liden et al. (2008) proposed servant leadership had seven characteristics: 1) emotional healing, 2) creating value for the community, 3) exhibiting conceptual skills, 4) empowering, 5) helping subordinates grow and succeed, 6) putting subordinates first, and 7) behaving ethically. Specifically, emotional healing refers to the extent to which a leader takes care of the personal problems and well-being of subordinates. Creating value for the community refers to how a leader supports a community near his or her organization and inspires subordinates to help the community as well. Conceptual skills refer to the leader's competence in providing solutions to work problems and understanding the goals of the organization. Empowering reflects the way a leader gives subordinates the power to make their own decisions, affecting autonomy, responsibility, and decision-making of subordinates. Helping subordinates grow and succeed refers how a leader helps subordinate succeed in their careers. Putting subordinates first refers to the extent to which a leader cares about their needs instead of his or her own needs. Behaving ethically means a leader serves subordinates honestly and truthfully, as a model of integrity.

Van Dierendonck (2011) identified 44 different characteristics in servant leadership but many overlapped. Therefore, Van Dierendonck (2011) categorized the overlapping characteristics into six key characteristics: 1) the ability to empower and develop people, 2) humility, 3) authenticity, 4) interpersonal acceptance, 5) the ability to provide direction, 6) good stewards. By empowering and developing people, a servant leader shows value for people and inspires them in their personal development (Laub, 1999), self-directed decision making, information sharing, and support for innovative performance (Konczak, Stelly, & Trusty, 2000). A servant leader with humility can put others first, enhancing their performance (Van Dierendonck, 2011). A servant leader shows authenticity in managing subordinates by expressing feelings precisely both privately and publicly (Peterson & Seligman, 2004). This authenticity manifests itself by doing what was promised (Russell & Gregory Stone, 2002; Van Dierendonck, 2011). Interpersonal acceptance covers both the ability to understand the feelings of others (George, 2000) and the ability not to carry a grudge (McCullough, Hoyt, & Rachal, 2000). A servant leader creates a work environment where subordinates can freely share their thoughts, feel accepted, and make mistakes (Ferch, 2004). A servant leader provides direction by ensuring that subordinates know what they are expected to do to improve both themselves and their organizations (Laub, 1999). This has been proposed as a key factor fostering and maintaining high social exchange quality between leader and subordinates (Ferris et al., 2009) in addition to creating novel solutions for old problems (Russell & Gregory Stone, 2002). Finally, for stewardship, a servant leader does not hesitate to take responsibility for the organization and go further for service, not for personal interest or to control others (Block, 1993; Spears, 1995). This stewardship is closely associated with social responsibility, loyalty, and team work (Van Dierendonck, 2011).

In summary, the core concept of servant leadership is serving others first not out of self-interest but to help subordinates succeed. In line with this core concept, scholars who have defined servant leadership include Ehrhart (2004), who stated that servant leaders “want their subordinates to improve for their own good, and view the development of followers as an end in and of itself, not merely a means to reach the leader's or organization's goals” (p. 69). Reed, Vidaver-Cohen, and Colwell (2011) defined servant leadership as the leaders “who manage organizational challenges by subordinating personal interests to those of organizational stakeholders and who see leadership as an opportunity for service to individuals, organization, and prestige” (p. 416).

Servant leadership has been presented as a multidimensional construct (Ehrhart, 2004, Liden et al., 2008, Van Dierendonck & Nuijten, 2011). The original servant leadership scale consisted of 28 measurement items (Liden et al., 2008). Later, Liden et al. (2014) introduced a 7-item measure of global servant leadership (SL-7), which may increase data quality by reducing 28 questions to seven (i.e., SL-7) and thus reducing respondent fatigue. Each item represents seven domains of servant leadership: 1) emotional healing, 2) creating value for the community, 3) conceptual skills, 4) empowering, 5) helping subordinates grow and succeed, 6) putting subordinates first, and 7) behaving ethically (Liden et al., 2014).

Team-Member Exchange

Seers (1989) first introduced the concept of team-member exchange, which refers to the quality of lateral social exchange relationships between one member of a group and the member’s focal group in sharing ideas, feedback, resources, expertise, effort, and recognition. In other words, team-member exchange indicates “the effectiveness of the member’s working relationship to the peer group” (Seers, 1989, p. 119) based on lateral relationships at work rather than hierarchical relationships. This team-member exchange concept is rooted in social exchange theory where mutual obligations generated through social and/or economic exchanges encourage each party to contribute to the other continuously (Blau, 1964). According to the social exchange theory, the social or economic feedback among team members is a fundamental factor for maintaining the reciprocity (Blau, 1964; Cropanzano & Mitchell, 2005), which in turn generates team member obligation to repay when one member benefits from others in the group. Repayment takes the form of important job resources and even socio-emotional resources, which in turn promotes mutual respect and trust (Blau, 1964; Seers, Petty, & Cashman, 1995). More importantly, these mutual obligations from favorable social exchange between two parties enhance workplace outcomes (Blau, 1964; Cropanzano & Mitchell, 2005; Seers, 1989). Specifically, the reciprocity quality affects the extent to which a focal member helps other team members, provides timely responses, and shares new information and new ideas (Seers, 1989). Hence, the quality of team-member exchange is determined by a member's appraisal of the quality of reciprocity within the group (Seers, 1989).

To capture the social exchange dynamic, team-member exchange helps explain team effectiveness in the literature on organizational behavior. Although prior studies have addressed the critical role of peer groups, most research on teams in a workplace have ignored social exchange dynamics among team members in explaining the effectiveness of teams (Cole, Schaninger, & Harris, 2002; Srivastava & Singh, 2015). Particularly, team-member exchange relationships have no dyadic focus, which differs from leader-member exchange in explaining the specific dyadic relationship between leaders and subordinates (Graen & Scandura, 1987). That is, a member who has felt favorable obligations by receiving benefits or help from a team member will either pay the given team member back or pay forward to another member of the team.

Previous TMX studies have explored (1) team-member exchange quality at the individual level, (2) between-group level of team-member exchange quality, and (3) within-group level of team-member exchange quality. Studies have found that high-quality individual levels of team-member exchange is positively associated with positive work behavior (e.g., extra-role behaviors and lower turnover intention) and attitudes (e.g., higher job satisfaction) (Seers et al., 1995), showing more mutual trust and respect among team members (Scott & Bruce, 1994), enhancing work-related feedback (Liden, Wayne, & Sparrowe, 2000), sharing more new ideas (Liden et al., 2000), receiving more resources (Liden et al., 2000), showing more helping behaviors to team members (Kamdar & Van Dyne, 2007), and fostering psychological empowerment (Schermuly & Meyer, 2016), work engagement (Liao et al., 2013), and organizational citizenship behavior (Farmer, Van Dyne, & Kamdar, 2015).

Farmer et al. (2015) investigated the role of differential team-member exchange quality to understand its relationship with coworker identification and helping organizational citizenship behavior using a sample of 236 bank managers and their subordinates, finding that coworker identification is stronger when a focal team has higher team-member exchange quality than other teams (Farmer et al., 2015). This differential team-member exchange quality can be explained by the social comparison theory, which notes that individuals have a drive to evaluate themselves against comparable individuals within their social environment to reduce uncertainty and define themselves (Festinger, 1954).

Internal Locus of Control

Rotter's social learning theory states that individual motivation and behavior are affected by the expected outcomes of the behavior (Rotter, 1954). If individuals expect to have positive outcomes from their behavior, they tend to engage in the behavior. This behavior is reinforced by experiencing positive outcomes, which in turn leads them to repeat the behavior (Rotter, 1954). Rotter's SLT indicates that the personality individuals have established and the way individuals respond to their environment govern behavior; thus, personality and behavior continuously change as the environment changes (Rotter, 1954).

Locus of control, rooted in the Rotter's social learning theory, refers to the generalized expectancy that a person has about what determines outcomes in life (Gilmor, 1978; Rotter, 1966). Sagone and De Caroli (2014, p. 222) also defined the locus of control as "a personality trait referred to an individual's perception of the locus of events as internally determined by his or her own behavior versus fate, luck or external circumstances." This locus of control construct as a personality trait was found to be a significant predictor of individual attitudes, emotions, and behavior across situations (Ng, Sorensen, & Eby, 2006; Rotter, 1954, 1966). While Rotter considered personality a relatively stable construct predicting specific behaviors in response to situations, he insisted that personality always changes as the way individuals think changes or the environment changes, thus changing individual behaviors (Rotter, 1954, 1966).

Depending on the belief, locus of control can be divided into internals and externals. Individuals with strong internal locus of control (i.e., internals) believe reinforcement or outcomes are due to their own efforts or characteristics (Gilmor, 1978; Rotter, 1966). In other words, internals perceive successes or failures as the result of their own actions, so internals believe the reinforcement is contingent on their own efforts or actions. In contrast, individuals with high levels of external locus of control (i.e., externals) believe that reinforcement or outcomes are controlled by fate, luck, or powerful others (Gilmor, 1978; Rotter, 1966). Therefore, externals believe their efforts or actions have little effect on the amount of reinforcement they get.

A meta-analysis of 184 articles investigated the difference between general locus of control and work locus of control (Wang, Bowling, & Eschleman, 2010). These authors found that general locus of control had stronger links with general criteria like life satisfaction and problem-focused coping, while work locus of control had relatively stronger links with work related variables including “job attitudes, employee well-being, job performance, withdrawal intentions, withdrawal behavior, perceptions of the work environment, interpersonal relationships at work, and coping behavior” (Wang et al., 2010, p. 764). Another meta-study of locus of control at work examined 222 articles and found that internal locus of control was positively linked to favorable work outcomes including positive tasks, social experiences, and greater job motivation (Ng et al., 2006) because internals have higher motivation to attain their goals than externals (Spector, 1982). Less research has explored the locus of control in hospitality. A study of hotel managers found a direct relationship between locus of control and job satisfaction (Salazar, Pfaffenberg, & Salazar, 2006).

Based on their positive characteristics, internals may tend to control various outcomes of their life, which may result in striving to resolve customer issues requiring immediate responses by using limited resources at hand, even if their actions entail risks from limited resources and require time to resolve those issues.

Internals also some negative characteristics. A study of service employees found that internals reported more anger and health symptoms than externals, while externals reported more depression than internals (Hahn, 2000).

Psychological Empowerment

Psychological empowerment was firstly introduced by Conger and Kanungo (1988). Conger and Kanungo (1988) defined it as the motivational process encouraging self-efficacy in others. Self-efficacy refers to the extent to which an individual believes he or she can perform tasks successfully (Bandura, 1986). Later, Thomas and Velthouse (1990) expanded the concept of psychological empowerment by providing a more thorough theoretical framework. Based on the work of Thomas and Velthouse (1990), Spreitzer (1995) identified four sub-dimensions of psychological empowerment: meaning, competence, self-determination, and impact. Thomas and Velthouse (1990) and Spreitzer (1995) considered psychological empowerment as a group of psychological cognitions toward job that manifest themselves as a motivational construct.

Psychological empowerment differs from structural empowerment. Employee reactions to structural empowerment is considered psychological empowerment (Laschinger, Finegan, Shamian, & Wilk, 2004). This structural empowerment occurs when individuals have access to four empowerment structures: 1. opportunity, 2. information, 3. support, and 4. resources (Knol & Van Linge, 2009). Specifically, the first stage is the opportunity to grow, the second stage refers to technical knowledge or data useful at work, the third stage is about relational quality and feedback from team members, and the fourth stage concerns resources required to achieve organizational goals like money, time, or equipment (Knol & Van Linge, 2009).

Psychological empowerment fosters a work environment where employees feel their jobs are meaningful, competence is enhanced, more control is given them in responding to unexpected situations immediately with their own decisions, and their team members' support on another (Spreitzer, 1995).

First, meaning involves the evaluation of the balance among individual beliefs, standards, values, and task requirements at work. In other words, meaning suggests that perceived work value is appraised based on an employee's own standards (Thomas & Velthouse, 1990). Similarly, Kahn (1990) viewed meaningfulness as a feeling that individuals perceived in comparing outcomes to inputs involving physical, cognitive, or emotional energy. When individuals experience meaningfulness, they feel valuable and useful; they feel confident enough to give to others as well as receive from others at work (Kahn, 1990). Incentives were associated with meaningfulness that allows individuals to engage (Kahn, 1990).

Thus, when personal meaning is well aligned with work, employees are more likely to be motivated, resulting in increased job satisfaction (Spreitzer, 1995; Thomas & Velthouse, 1990).

Second, competence refers to the individual belief in the ability to perform tasks successfully (Bandura, 1989; Lawler, 1973). Depending on level of competence, individuals can either enjoy work and initiating behavior or show anxiety and avoidance behavior at work (Bandura, 1997; Gist, 1987). The development and enactment of competence is affected by observation, training, and experience (Bandura, 1977, 1997).

Third, self-determination refers to the feeling of having choice and control over work behavior (Thomas & Velthouse, 1990). In other words, self-determination motivates choices that individuals make without influence from external factors (Deci et al., 1989; Ryan & Deci, 2000) and the need for autonomy at work (Fock, Chiang, Au, & Hui, 2011). For individuals to feel self-determination, Ryan and Deci (2000) suggested an intrinsic need (e.g., autonomy) is satisfied that motivates individuals to behave. Self-determination reduces role conflict and stress among employees because they feel more control, allowing them to make their own decisions at work (Agarwal, 1993; Dubinsky, Michaels, Kotabe, Lim, & Moon, 1992).

Thus, employees with a higher level of self-determination can respond promptly to unique situations at work, but those with a lower level of self-determination could feel helpless because they feel they are not permitted to take action in response to unique and different situations at work (Liden et al., 2000).

Finally, impact refers to the extent to which work performance influences organizational outcomes related to management, operations, strategy, and other organizational aspects

(Ashforth, 1989). That is, the dimension of impact focuses on the outcome, derived from beliefs among individuals about the quality of their performance and the outcome resulting from the performance (Mishra & Spreitzer, 1998; Spreitzer, 1995). Impact can be encouraged by allowing individuals to participate in decision making, increasing the feeling that they control their work, which, in turn, leads to having an increased belief in their behavioral impact on work outcomes, fostering a feeling of impact (Zhang & Bartol, 2010).

All four sub-dimensions of psychological empowerment encourage employees to do their job efficiently (Li, Wei, Ren, & Di, 2015) because employees who feel their job is meaningful have more confidence in performing their work, have a higher level of self-determination, and see their work has more impact on the organization and other team members (Spreitzer, 1995). Indeed, prior scholars have found that psychological empowerment correlates with task performance (Aryee & Chen, 2006; Chiang & Hsieh, 2012; Koberg, Boss, Senjem, & Goodman, 1999), organizational commitment (Avolio, Zhu, Koh, & Bhatia, 2004), job satisfaction (Robert C. Liden et al., 2000), innovative behavior (Singh & Sarkar, 2012), and employee creativity (Sun, Zhang, Qi, & Chen, 2012; Zhang & Bartol, 2010). In addition, a study using hotel employee samples revealed that psychological empowerment positively affects both job performance and organizational citizenship behavior while perceived organizational support did not positively affect job performance (Chiang & Hsieh, 2012). Furthermore, transformational leadership (Avolio et al., 2004) and job characteristics (Liden et al., 2000) positively affected psychological empowerment.

Consequences of Service Improvisation

Service Recovery Performance

Service recovery performance refers to “the behaviors in which customer service employees who directly handle customer complaints engage to recover customer satisfaction and loyalty after service failures” (Liao, 2007, p. 476). In other words, service recovery performance is “doing things very right the second time” (De Ruyter & Wetzels, 2000, p. 91), the actions by service employees in response to service failures (Bendall-Lyon & Powers, 2001; Bitner et al., 1990; Gronroos, 1990).

Service recovery performance is important in the service industry where customer demands keep increasing as the industry becomes more competitive. Frontline employee response to service failures is crucial because they stand as a boundary spanner between organizations and customers, and their responses in resolving customer complaints directly affect the service quality of the organizations. Thus, high quality service recovery performance minimizes negative influences on service organizations originated in service failures (Liao, 2007).

Customers rank the quality of handling customer complaints and/or service failure (Gronroos, 1988) and share their bad service experience with other people (Mattila, 2001). Also, any purchasing decision is largely affected by the ability to handle customer complaints and/or service failures, making it, after the quality of product, the second most crucial factor in purchasing decisions (Conlon & Murray, 1996).

Previous studies have explored how to improve frontline employee service recovery performance. A study of frontline employees at a national bank found that organizational commitment and rewarding frontline employees for service excellence enhanced service recovery performance (Boshoff & Allen, 2000). A study of frontline hospital staff members found that empowerment, teamwork, and organizational commitment had a positive relationship with SRP while role ambiguity had a negative relationship with service recovery performance (Ashill, Carruthers, & Krisjanous, 2005). A study of 250 frontline employees in restaurants revealed that perceived support from supervisor and coworkers for error management positively affected service recovery performance (Guchait, Paşamehmetoğlu, & Dawson, 2014).

Emotional Exhaustion

The extensive literature on burnout reveals a variety of perspectives on defining burnout (Alarcon, 2011; Malach-Pines, 2005; Shirom & Melamed, 2006). The most widely used measure of burnout is the Maslach Burnout Inventory (MBI) (Maslach, Schaufeli, & Leiter, 2001). In MBI, burnout comprises three components: emotional exhaustion, cynicism (depersonalization), and reduced personal accomplishment (Maslach et al., 2001). Emotional exhaustion refers to a depleted state of emotional and physical resources caused by extreme workloads and/or psychological demands (Maslach, 1982; Maslach et al., 2001). In other words, emotional exhaustion is the emotional state that makes people unable to perform their tasks emotionally because they have no mental energy left after extreme stress and work demands (Maslach & Goldberg, 1998; Maslach et al., 2001). Thus, emotional exhaustion diminished frontline employee job satisfaction (Karatepe & Tekinkus, 2006; Karatepe, Yorganci, & Haktanir, 2009) and service recovery performance (Karatepe et al., 2009).

In general, when people experience burnout, emotional exhaustion is the construct most people refer to (Maslach et al., 2001). Emotional exhaustion is the most extensively used construct of burnout among three components of burnout in the literature (Maslach et al., 2001).

According to conservation of resource theory (Hobfoll, 1989), emotional exhaustion as the first stage of burnout leads to cynicism (depersonalization) and feeling a lack of personal accomplishment. Cynicism refers to an attempt by employees to put distance between themselves and their customers by actively ignoring tasks at work and the unique and engaging qualities of their customers (Maslach et al., 2001). Cynicism is a maladaptive coping mechanism that is followed by emotional exhaustion due to extreme workloads and limited resources (Alarcon, 2011; Maslach et al., 2001). In other words, cynicism explains that people detach themselves from a stressful situation by ignoring their work emotionally and cognitively as a coping strategy for work overload (Maslach et al., 2001). For example, restaurant employees who are in boundary-spanning positions must cope with many customers under demanding work conditions like an inflexible work schedule and a heavy workload. Under these conditions, to cope with their stress, restaurant frontline employees may emotionally distance themselves from their customers when they confront demanding situations with coworkers and customers. Distancing makes the service employees turn away from providing unique service and engaging customers. Correspondingly, in burnout research, distancing is an immediate response to emotional exhaustion; thus, a strong relationship between emotional exhaustion and cynicism has been consistently identified (Maslach et al., 2001). In addition, emotional exhaustion leads to reduced personal accomplishment, defined as a perception of decreased professional efficacy (Maslach et al., 2001).

Support for Creativity

Support for creativity involves a social environment where creative ideas are encouraged and supported by coworkers and supervisors (Amabile et al., 1996). In other words, support for creativity refers to the extent to which supervisors and coworkers encourage employees to develop and refine creative ideas and/or performance (Madjar et al., 2002).

Amabile (1996) thought of creativity as producing novel and useful ideas, productions, or procedures. The creative work may introduce a new idea to the organization or may recombine existing resources in ways that are useful to the organization. Previous research suggests that supportive behavior from others in a workplace enhances employee creativity (Amabile, 1998; Amabile et al., 1996; Oldham & Cummings, 1996). Also, Madjar et al. (2002) found that employee mood mediates the relationship between supervisor and coworker support for creativity and creativity itself.

Overarching Theories

Job Demand-Resource Model

The Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) includes job demands and resources as determinants of employee well-being in every occupation. In other words, employee well-being shown by job strain, burnout, work engagement, and extra-role performance can be predicted by job demands and resources (Bakker & Demerouti, 2007). The JD-R model assumes two different underlying psychological mechanisms determining the progress of job strain and motivation (Bakker & Demerouti, 2007). That is, the JD-R model contains dual processes: 1. a health impairment process and 2. a motivational process. For the health impairment process, previous scholars have found that employees suffering from excessive job demands including heavy work pressure, emotional demands, physical demands, role conflict, and role ambiguity may lead to physical and mental health issues (e.g., sleeping problems, emotional exhaustion) (Cheng, Kawachi, Coakley, Schwartz, & Colditz, 2000; Halbesleben & Buckley, 2004).

In the motivational process, on the other hand, job demands cost employees in physical and/or psychological effort as they perform tasks at work. Job resources reduce those physical and/or psychological costs and foster personal growth and goal achievement (Demerouti et al., 2001). Job resources include social support from supervisors or coworkers, work feedback, and autonomy and may stimulate motivation, which in turn enhances job-related learning, work engagement, and in-role or extra-role performance (Demerouti et al., 2001; Liao et al., 2013; Xanthopoulou, Baker, Heuven, Demerouti, & Schaufeli, 2008). That is, job resources reduce the impact of job demands on employees, reducing stress-related outcomes like in-role stress, extra-role stress, and emotional exhaustion. Thus, employee well-being can be positively influenced by profound job resources.

Conservation of Resources Theory

Conservation of resources (COR) theory explains that people work to achieve, build, and protect resources that they value, but losing those resources after putting in the effort to acquire them generates strain (Hobfoll, 1989, 2001). Resource in COR theory refers to objects, personal characteristics, conditions, and energies valued by individuals as they acquire or maintain their resources (Hobfoll, 1989). Demand in COR theory is defined as threats to resource, actual loss of resources, or failure to obtain resources (Hobfoll, 1989). In a high demand working environment with fewer resources, employees can use maladaptive coping strategies (e.g., social withdrawal, depersonalization) that damage organizational attitudes like job satisfaction (Hobfoll, 1989). Thus, COR theory does support emotional exhaustion as generated in the first stage, followed by cynicism (depersonalization) as a maladaptive coping strategy, which in turn leads to diminishing personal accomplishment (Alarcon, 2011; Hobfoll, 1989). If employees are continuously exposed to a work environment with fewer resources and excessive job demands, their resources are threatened and eventually deteriorate (Hobfoll, 1989). With high job resources in a high demand work environment, employees may reinvest their resources into their work environment, enhancing work outcomes (Hobfoll, 1989).

Hypotheses Development

Servant Leadership and Service Improvisation

According to the Job Demand and Resource model (Bakker & Demerouti, 2007; Demerouti et al., 2001), job resouces at work improve employee work-related outcomes like extra-role performance and reduce any negative consequences of job demands that might cause in-role/extra-role stress and emotional exhaustion (Demerouti et al., 2001; Liao et al., 2013; Xanthopoulou et al., 2008). In the restaurant industry, customers continuously introduce variability to service employees, which affects service outcomes (Bitner et al., 1990; Frei, 2006); thus, a standard operating procedure cannot fit all situations. Secchi (2012) proposed service improvisation as a way to cope with the customer-induced variability.

Then, what kinds of job resouces encourage service improvisation among frontline employees in the restaruant industry? In this study, servant leadership is proposed as one job resource that encourages service improvisation. Cunha et al. (2003) argued that servant leadership, unlike directive leadership, improves improvisation quality possibly because servant leaders create a distinctive work environment that allows improvisational behavior through an experimental culture and minimal structure (Cunha et al., 2003), which are key conditions for improvisation (Cunha et al., 1999). “An experimental culture results from a set of values and beliefs that promote action and experimentation – as opposed to reflection and planning – as a way of understanding and dealing with reality” (Cunha et al., 1999, p.318). In addition, minimal structure refers to the sets of controls used to achieve efficient and effective improvisation (Crossan, 1998; Cunha et al., 1999). These sets of controls for improvisation are strongly related to indirect controls used via culture or ideology to foster improvisation (Weick, 1993b). Other types of controls, such as direct supervision and standardized order, made novel actions more difficult (Dougherty & Hardy, 1996). Indeed, a team actively engaged in improvisation have some characteristics in common with experimental cultures and minimal structure. For instance, the team is (1) “open to reassembly of and departures from routines” and (2) show “preference for and comfort with process rather than structure, which makes it easier to work with ongoing development, restructuring, and realization of outcomes, and easier to postpone the question, what will it have amounted to?” (Weick, 1998, p. 552).

In addition, servant leaders support personal development among subordinates (Laub, 1999) and encourage their self-directed decision making and innovative work (Konczak et al., 2000). A safe work environment created by a servant leader is well aligned with the principle of improvisation, letting environment teach employees not by controlling the environment but by letting employees think outside the routines (Cunha et al., 1999). Therefore, servant leaders encourage followers to try new ideas, departing from routines and creating a process that is more flexible than structured order to make it easier to develop new ideas and solutions (Bilsen, 2010; Cunha et al., 2003).

Servant leaders consider the process of work as more important than the outcome of work, which in turn, makes the work environment safer for trying new ideas and more accepting of failure (Bilsen, 2010; Cunha et al., 2003). Thus, servant leaders tolerate errors, which is a condition of improvisation (Cunha et al., 1999).

Stewardship is a characteristic of servant leader willing to take responsibility for his followers and organizations, going the extra mile for subordinates, but not out of personal interest nor to control them (Block, 1993; Spears, 1995). Cunha et al. (2003) stressed stewardship as an important characteristic of servant leadership that justifies the possible link between servant leadership and service improvisation. This may be because stewardship enhances trust, team work and social responsibility among followers (Block, 1993; Van Dierendonck, 2011), which are critical to fostering improvisation (Crossan et al., 1996).

Cunha et al. (1999) noted that managing employee affect is an important part of enhancing improvisation. Although a less controlled environment enhances spontaneity, which is important to improvisation (Crossan, 1998), this type of environment departs from consistent, comfortable, confident, and competent work environments, also called the four Cs of risk, and may make employees uneasy (Claxton, 1984), generating anxiety and preventing improvisation (Hatch, 1999). Therefore, recognizing employee emotion explicitly and discussing their affective state reduces employee anxiety and activates improvisation (Barrett & Peplowski, 1998; Cunha et al., 1999; Hatch, 1999). Thus, the characteristics of servant leaders may encourage improvisational behavior.

Taken together, I hypothesized that:

H1. Servant leadership is positively related to service improvisation.

Team-Member Exchange and Service Improvisation

Drawing on the Job Demand and Resource model (Bakker & Demerouti, 2007; Demerouti et al., 2001), the current study argues that team-member exchange quality is a crucial job resource to help employees cope with stressful situations requiring them to improvise at work. Team-member exchange refers to the lateral social exchange quality between a focal member and his or her group; examples of social exchange include sharing ideas, feedback, resources, knowledge, and effort (Seers, 1989; Seers et al., 1995). High quality team-member exchange involves mutual trust and respect (Hoegl & Wagner, 2005; Scott & Bruce, 1994) within a team, high involvement in exchanging resources, going the extra mile to help team members (Liden et al., 2000), and effective and efficient collaboration (Hoegl & Wagner, 2005). A team with high quality team-member exchange is positively associated with work outcomes including job performance, job satisfaction, organizational commitment, and turnover intentions because a team member can better use resources from his or her coworkers (Banks et al., 2014). In addition, according to the social exchange theory (Blau, 1964), these favorable contributions among team members continuously trigger the obligation to repay group members in the future. These obligations keep mainlining a high-performance team, helping frontline service employees engage in improvisation.

Indeed, team members who actively engage in improvisational behavior share some characteristics with a team with high quality team-member exchange: (1) “skillful at paying attention to performance of others and building on it in order to keep the interaction going and to set up interesting possibilities for one another” and (2) “able to maintain the pace and tempo at which others are extemporizing” (Weick, 1998, p. 552). Banks et al. (2014) argue that a team with high quality team-member exchange shows superior performance because team members can easily anticipate each other's performance. In other words, each member is likely to meet expectations at work, which keeps team interactions going (Seers, 1989). A team member with high quality team-member exchange may be skilled at recognizing the performance of other members and build on that performance so work-related interactions work fluently, especially when a team member is extemporizing. As in previous arguments, Akgün and Lynn (2002, p.125) suggested eight components that may improve improvisation among team member: (1) "acknowledge conflict and work to resolve issues in the team"; (2) "help others in the team by sharing knowledge and information"; (3) "encourage diverse perspectives and differing points of view from others in the team"; (4) "demonstrate interest and enthusiasm during team activities"; (5) "acknowledge the contributions made by others in the team; (6) "try to work together toward a unified goal"; (7) "share information (technical, market, etc.) freely with others in the team; and (8) "consider other people's feelings."

Strong trust and support also trigger improvisational behavior on a team (Crossan et al., 1996) because "… improvisation requires a high degree of trust and mutual respect" (Crossan et al., 1996, p. 28). Akgün and Lynn (2002) noted that a new-product development team with strong teamwork on can enhance improvisational behavior because they trust one another and have cohesiveness with the team; they found empirical evidence showing a positive association between teamwork and improvisation in new product development. Vera and Crossan (2004, p. 743) also stated, "Teamwork is important for organizational improvisation because what one person does is determined by what all others are doing." For example, Weick (1993a) introduced the case of the Mann Gulch disaster, showing how a fire fighter improvised to save his own life and offered the same solution to another fire fighter who rejected the offer and died (Weick, 1993a). This example shows how trust, support, and respectful interactions among team members are important in improvisational behavior. Thus, lack of trust, support, and respectful interactions among team members can lead to malfunctions within a team, which will reduce improvisational behavior (Vera & Crossan, 2004).

Because high quality team-member exchange explains mutual trust and respect among team members (Hoegl & Wagner, 2005; Scott & Bruce, 1994), I argue that team-member exchange quality may influence a team member's improvisational behavior:

H2. Team-member exchange is positively related to service improvisation.

Internal Locus of Control and Service Improvisation

Getting involved in improvisational behavior means that individuals take some risks because they must deviate from routine to cope with unexpected triggers (Cunha et al., 1999). Claxton (1984) named those risks the four Cs: the desire to be consistent, comfortable, confident, and competent. In addition, Crossan (1998) stated that psychological risks derive from unexpected situations requiring individual spontaneity. One way to overcome those risks is to build strong internal locus of control, and based on the Job-Demand and Resource (JD-R) model (Bakker & Demerouti, 2007; Demerouti et al., 2001), this study proposes that internal locus of control is a personal resource important to service improvisation. That is, a strong internal locus of control allows someone to use personal resources (i.e., internal locus of control) to step out of their comfort zone and improvise.

Depending on the type of locus of control, the perception of risks will differ. That is, individuals with an internal locus of control are more likely to be open to risks (Das & Teng, 2001) because they are more optimistic (Caliendo, Cobb-Clark, & Uhlendorff, 2015) and less feel anxiety (Shriberg, 1974) in demanding situations than individuals with an external locus of control. Thus, when confronted with demanding situations, people with an internal locus of control are inclined to accept those demanding situations as manageable challenges instead of giving up (Parkes, 1984).

At work, those with internal locus of control appear to have higher self-efficacy, the ability to cope with difficulties, and better job performance than those with external locus of control (Joo, Lim, & Kim, 2013; Judge & Bono, 2001). In addition to positive work outcomes, those with internal locus of control produced more innovative ideas (Burroughs & Glen Mick, 2004), creative responses (DuCette, Wolk, & Friedman, 1972), and superior cognitive skills like information processing (Gilmor, 1978) than those with external locus of control. These work outcomes may occur because those with internal locus of control do not limit themselves in accepting and performing new tasks and/or challenges.

When it comes to using information, those with internal locus of control can better perceive and use delicate environmental signals relevant to speedy task performance (e.g., service improvisation) than those with external locus of control because having internal locus of control makes employees more skillful at getting task-relevant information before they act (Moser & Moser, 1973), better at assessing the information at hand in their situation (DuCette & Wolk, 1973; Lefcourt & Wine, 1969; Phares, Ritchie, & Davis, 1968; Wolk & DuCette, 1974), and better able to see their environment as controllable (Parkes, 1984). These characteristics of those with internal locus of control are especially important in improvisation.

A possible link between internal locus of control and service improvisation can be found in previous studies. Akgün and Lynn (2002) argued that speedy gathering and sharing of information affects improvisation. When acting on stage, real-time information is a key for actors to improvise (Moorman & Miner, 1998a). Information flow among jazz players through nonverbal cues is crucial in improvising (Bastien & Hostager, 1992; Hatch, 1999; John, Grove, & Fisk, 2006). Since those with internal locus of control are skilled at interpreting and using information even with subtle environmental signals, they may be more likely to recognize situations that require improvisation. Those with internal locus of control find it more conceivable to improvise to solve unexpected challenges with limited time and resources because they have more task-relevant information (Moser & Moser, 1973), produce more innovative ideas (Burroughs & Glen Mick, 2004), respond more creatively (DuCette et al., 1972), and process information faster (Gilmor, 1978) to cope with unexpected problems. Lee (2015) argued that hotel employees with internal locus of control are more likely to be optimistic about performing their tasks, which eventually makes them more willing to accept challenging tasks. Thus, those with internal locus of control may be willing to improvise to react spontaneously to unexpected and challenging situations even with limited time and resources.

Hence, I hypothesized that:

H3. Internal locus of control is positively related to service improvisation.

Mediating Role of Psychological Empowerment

Vredenburg (2017) explained how and why autonomy leads to improvisation by introducing the building blocks of psychological empowerment: autonomy as a structural aspect, empowerment as psychological aspect (i.e., motivation), and improvisation as a behavioral aspect. Vredenburg (2017) included the psychological aspect of empowerment as a mediator. Autonomy and empowerment are not enough to explain how the behavioral aspect helps resolve problems because these two variables only account for the latitude of individual actions. That is, autonomy explains the extent to which individuals have choice and control over their actions (i.e., structural aspect) while empowerment explains the extent to which individuals are motivated to use their choice and control (i.e., psychological aspect) (Vredenburg, 2017). Vredenburg (2017) proposed improvisation as a behavioral toolkit that helps employees to revolve problems, assuming behavior that is spontaneous and creative. Thus, I argue that job resources encouraging subordinate autonomy will increase subordinate psychological empowerment, which in turn, leads to service improvisation.

Job demands require employees to use their psychological and/or physical energies to perform their tasks effectively. According to the motivational process of Job Demand and Resource model (Bakker, Demerouti, & Verbeke, 2004; Demerouti et al., 2001), job resources including autonomy, supervisor feedback, and coworker support, which encourage employee motivation, leading to improved work-related outcomes (Demerouti et al., 2001; Liao et al., 2013; Xanthopoulou et al., 2008) because job resources are useful to employees performing tasks. These job resources ease physical and/or psychological energies and facilitate personal growth and goal achievement (Demerouti et al., 2001).

Servant leadership and psychological empowerment

Servant leaders satisfy psychological needs of employees, which in turn develops personal growth, positive job attitudes, autonomy, and behavior of followers, turning them into servants (e.g., organizational citizenship behavior) (Van Dierendonck, 2011). Although few studies have examined the relationship between servant leadership and psychological empowerment, two recent studies have empirically tested a direct positive link between servant leadership and psychological empowerment (Liden et al., 2000; Newman, Schwarz, Cooper, & Sendjaya, 2017).

Psychological empowerment comprises four sub-constructs: meaning, referring to perceived value of work, which is appraised based on individual beliefs and/or standards (Thomas & Velthouse, 1990); competence, defined as the extent to which individuals believe they can complete their tasks with available skills (Thomas & Velthouse, 1990); self-determination, individual perceptions of the level of control and choice in performing work (Thomas & Velthouse, 1990); and impact, referring to the belief that individual performance contributes to work outcomes (Ashforth, 1989).

There are several reasons that servant leadership may be positively associated with follower psychological empowerment. Serving others is a core value of servant leaders, motivating them at work (Farling, Stone, & Winston, 1999). That is, instead of focusing on personal success, servant leaders concentrate on cultivating the personal growth of employees and satisfying employee needs at work (Ehrhart, 2004; Gregory Stone, Russell, & Patterson, 2004). Newman et al. (2017) argued that servant leaders promote subordinates' meaning at work by focusing on development of followers, allowing subordinates to perceive value in their work and treating subordinates with respect instead of using subordinates for their own personal achievements. Servant leaders encourage personal growth in subordinates, so subordinates develop skills and ability, enhancing their competence. Thus, Newman et al. (2017) argued that servant leaders who support subordinate personal development, treating them with respect and trust, may enhance subordinate feelings of competence at work.

Servant leaders encourage their subordinates to participate in decision making at work (Greenleaf, 1977; Van Dierendonck, 2011). Including subordinates in decision making enhances their self-determination and allows them to understand the impact of their decisions on their organization (Newman et al., 2017). Therefore, servant leadership may enhance subordinate perceptions of psychological empowerment, consisting of meaning, competence, self-determination, and impact.

Team-member exchange and psychological empowerment

Team-member exchange explains non-hierarchical social exchange quality between a specific member and a focal group (Seers, 1989), rooted in the social exchange theory (Blau, 1964). Social exchange theory describes social and economic exchanges between two parties, which makes each party feel an obligation to benefit each other continuously (Blau, 1964). Team-member exchange quality is especially important because it captures the social exchange dynamic among team members (Cole et al., 2002; Srivastava & Singh, 2015).

One critical antecedent for psychological empowerment is a supportive and trusting relationship among team members (Spreitzer, 2008), which may be encouraged by high team-member exchange quality. Team-member exchange quality encourages feedback, knowledge sharing, and willingness to help other team members (Seers, 1989); mutual trust and respect among team members (Scott & Bruce, 1994); work engagement (Liao et al., 2013); organizational citizenship behavior (Farmer et al., 2015); identification with colleagues (Farmer et al., 2015); and receiving more resources (Liden et al., 2000).

These favorable outcomes from high team-member exchange quality help team members maintain a good relationship within the team, creating a work environment allowing them to be more empowered at work (Schermuly & Meyer, 2016). Specifically, Schermuly and Meyer (2016) argue that competence is encouraged by constructive feedback, that impact can be heightened through receiving more useful resources, and that meaning can be increased by improving member identification with other team members.

Internal locus of control and psychological empowerment

Locus of control is divided into two dimensions: internal locus of control (i.e., internals) and external locus of control (i.e., externals). Internals believe that the outcomes individuals achieve are controllable and contingent upon their own efforts and actions. On the other hand, externals believe outcomes are determined by uncontrollable external factors like luck, fate, or powerful others (Gilmor, 1978; Rotter, 1966). Spreitzer (1995) noted that internals are positively connected with all components of psychological empowerment because “Individuals with an internal locus of control regarding life in general are more likely to feel capable of shaping their work and work environments and hence to feel empowered” (Spreitzer, 1995, p. 1446). In addition, Thomas and Velthouse (1990) found that locus of control largely affects the impact dimension of psychological empowerment, which explains the extent to which performance contributes to work outcomes (Ashforth, 1989).

Although locus of control has a positive relationship with motivation-related variables, research has uncovered mixed results on the link between locus of control and motivation (Galvin, Randel, Collins, & Johnson, 2018). For example, locus of control is positively associated with motivation- related variables, including psychological empowerment, self-efficacy, self- esteem, and intrinsic task motivation (Johnson et al., 2008; Ng et al., 2006; Phillips & Gully, 1994; Saks & Ashforth, 1999; Van Hooft & Crossley, 2008; Zhou, Guan, Xin, Mak, & Deng, 2016). Jha and Nair (2008) found a statistically significant positive relationship between internal locus of control and psychological empowerment of hotel frontline employees. In contrast, Spreitzer (1995) hypothesized a direct link between locus of control and psychological empowerment, but the relationship was not statistically significant; this may have been due to the reliability of measurement items. Wang, Zhang, and Jackson (2013), however, also found no significant relationship between locus of control and psychological empowerment.

In addition, a cross-sectional study found locus of control was a moderator in the relationship between psychological empowerment and contextual and innovative performance (Li et al., 2015). Specifically, Li et al. (2015) insisted that psychological empowerment motivates internals to perform better while diminishing the motivation of externals in performing tasks at work. That is, externals may feel more stress, burden, or anxiety if they have more psychological empowerment from their organization, while internals act with more confidence (Li et al., 2015).

Drawing on the motivational process of Job Demand and Resource model, this study argues that internal locus of control enhances psychological empowerment by providing an important personal resource that motivates individuals to achieve organizational goals and personal development (Demerouti et al., 2001). In other words, internals are likely to believe outcomes are controllable by their actions, attitude, or behaviors, so they perceive the meaningfulness of their work, are more competent in accomplishing their tasks, have more self-determination at work, and have more impact through the variety of tasks they address, ranging from routine to challenging.

Psychological empowerment and service improvisation

Secchi (2012) argued that psychological empowerment is a necessary condition for service improvisation because psychological empowerment allows frontline employees to shift the power to make decisions to frontline employees themselves during service delivery. Vredenburg (2017) also suggested that psychological empowerment (motivation) was a prior step to improvisation (behavior).

Empowered employees are more actively engaged in their work and go the extra miles beyond what is required (Kim & Kim, 2013; Spreitzer, 2008). Meaningfulness increases their perceived level of organizational attachment, which leads them to perform tasks above and beyond their job description (Seibert, Wang, & Courtright, 2011). Thus, meaningfulness may be positively associated with service improvisation. In other words, employees who do not strictly follow their job descriptions are more likely to improvise; service improvisation requires frontline employees to deviate from standard routines.

Competence and impact may also foster service improvisation because both competence and impact allow individuals to perceive themselves as able to attain favorable work outcomes if they put their effort into their work (Spreitzer, 1995). Thus, competence and impact may help frontline employee deviate from routine to achieve positive work outcomes by improvising.

Few studies have explored the relationship between psychological empowerment and service improvisation, although Secchi (2012) revealed a positive link between psychological empowerment and service improvisation.

Thus, I hypothesized that:

H4. Psychological empowerment mediates the relationship between servant leadership and service improvisation.

H5. Psychological empowerment mediates the relationship between team-member exchange and service improvisation.

H6. Psychological empowerment mediates the relationship between internal locus of control and service improvisation.

Service Improvisation and Service Recovery Performance

Standardized service is an almost impossible way to satisfy many unique customer issues; thus, service delivery must be flexible with real time responses to customer needs in many different situations (John et al., 2006). Frontline employees who can resolve service failures are important because properly addressed service failures enhancing an organizations' performance and improve customer attitudes toward the organization (Rod & Ashill, 2009; Wirtz & Mattila, 2004). Although no empirical evidence links service improvisation with service recovery performance, other scholars have speculated on the possible link: "improvisational skills can be very powerful in recovering customers for whom the service may have failed" (John et al., 2006, p. 258).

Drawing on the Conservation of Resources theory, restaurant frontline employees may use service improvisation as a personal resource to cope with a wide variety of unique customer issues. Service improvisation is an important resource because it includes creativity, spontaneity, and bricolage, all of which are essential in recovering service failures. Indeed, conceptual papers have argued that service failures can be resolved through service improvisation that allows employees to act promptly (i.e., spontaneity), have creative solutions (i.e., creativity), offer reasonable compensation or other services (i.e., bricolage) in service recovery (Miguel Pina Cunha et al., 2009; John et al., 2006). In particular, spontaneity in improvisation or "planning in action" may be crucial in fostering service recovery because a speedy reaction is a key element of service recovery (Cunha et al., 2009).

Therefore, the following hypothesis is proposed:

H7. Service improvisation is positively related to service recovery performance.

Service Improvisation, Emotional Exhaustion, and Service Recovery Performance

Emotional exhaustion refers to the emotional state that makes people unable to perform their tasks emotionally because they have no mental energy, which can be drained by extreme stress and work demands (Maslach & Goldberg, 1998; Maslach et al., 2001). This emotional exhaustion is a major construct of burnout (Maslach et al., 2001).

The Conservation of Resources (COR) theory is a fundamental cornerstone of the relationship among service improvisation, emotional exhaustion, and service recovery performance. The COR theory suggests that individuals seek to gain and keep those resources defined as "…objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies" (Hobfoll, 1989, p. 516). Frontline employees may lose these resources (e.g., energies) if they improvise to cope with unexpected and demanding situations. Hatch (1999) also argued that excessive improvisation induces psychological burnout and stress. Cunha et al. (1999) noted that improvisation could increase employee anxiety.

In the restaurant industry, for example, frontline employees are continuously confronted with demanding customers making unique and unexpected requests that are far from routine, Accommodating customers who show up earlier than their reservation time or responding to requests for specific meals that are not on the menu are examples, especially in a fast-paced work environment that generates pressure to deliver the right service at the right time. These situations require extreme workloads and heavy psychological demands that may lead to a depleted emotional and physical state as employees continuously attempt to satisfy these unexpected needs. An empirical study of entrepreneurs found that the more they improvised, the less satisfied they are with their work (Hmieleski & Corbett, 2008).

The Conservation of Resources theory can also explain the relationship between emotional exhaustion and service recovery performance. The Conservation of Resources theory (Hobfoll, 1989) reveals the three stages of burnout: emotional exhaustion, cynicism or depersonalization, and reducing personal accomplishment. That is, resource loss and emotional exhaustion decrease work outcomes (Lee & Ashforth, 1996). Emotional exhaustion weakens various work outcomes including job performance (Bakker et al., 2004; Halbesleben & Buckley, 2004; Schaufeli & Bakker, 2004; Singh, Goolsby, & Rhoads, 1994), frontline employee job satisfaction (Karatepe & Tekinkus, 2006; Karatepe et al., 2009), and service recovery performance (Choi, Kim, Lee, & Lee, 2014; Essawy, 2016). A study of hotel frontline employees found that verbal aggression by customers leads to emotional exhaustion, which, in turn, reduces service recovery performance (Karatepe et al., 2009).

Although employee improvisation may not always bring about positive outcomes (Hatch, 1999; Hmieleski & Corbett, 2008; Vera & Crossan, 2005), empirical understanding of how service improvisation is linked to negative consequences is still limited. A meta study on the improvisation-performance link gave mixed results (Gao et al., 2015), supporting the statement "improvisation is not inherently good or bad" (Hmieleski & Corbett, 2008; Vera & Crossan, 2004, 2005).

In summary, this study proposes that when restaurant frontline employees feel emotionally exhausted from coping with customer issues that require service improvisation, effectiveness in addressing customer service failures will deteriorate.

Therefore, the following hypotheses are proposed:

H8. Service improvisation is positively related to emotional exhaustion.

H9. Emotional exhaustion is negatively related to service recovery performance.

Moderating Role of Support for Creativity

While service employees strive to meet customer needs, service employees may suffer from emotional exhaustion, stress, and anxiety (Chunha et al., 1999; Hatch, 1999). According to the Conservation of Resources theory (Hobfoll, 1989, 2001), people under high stress reach out to available resources to manage their distress, among them, personal, job, and organizational resources, to help in coping with role stressors (Hobfoll, 1989, 2001).

Excessive job demands from unexpected customer issues require frontline employees to use service improvisation but may result in losing job resources (i.e., energy) and increasing stress and emotional exhaustion (Hatch, 1999). These employees will likely seek out available resources to manage their emotional distress and loss of resources. Indeed, Ito and Brotheridge (2003) stated that adapting to unexpected situations requires energy to manage complex tasks that may lead to uncertain outcomes. Furthermore, task complexity is positively associated with emotional exhaustion (Ito & Brotheridge, 2003), and improvisation helps in coping with these complexities (John et al., 2006; Leybourne, 2010). Therefore, restaurant frontline employees may seek out available resources to cope with demanding service recovery processes; otherwise, they may suffer from extreme emotional exhaustion. Employees seek to gain further job resources or minimize resource loss by helping each other. According to the COR theory, "... excessive demands and/or insufficient resources within a particular role domain or between domains can result in negative affective and dysfunctional behaviors" (Shaffer, Harrison, Gilley, & Luk, 2001, p. 100). Thus, employees seek available resources to enhance work outcomes, especially when their work is highly demanding. Otherwise, employees may suffer emotional exhaustion and use maladaptive coping strategies (i.e., depersonalization) (Hobfoll, 1989).

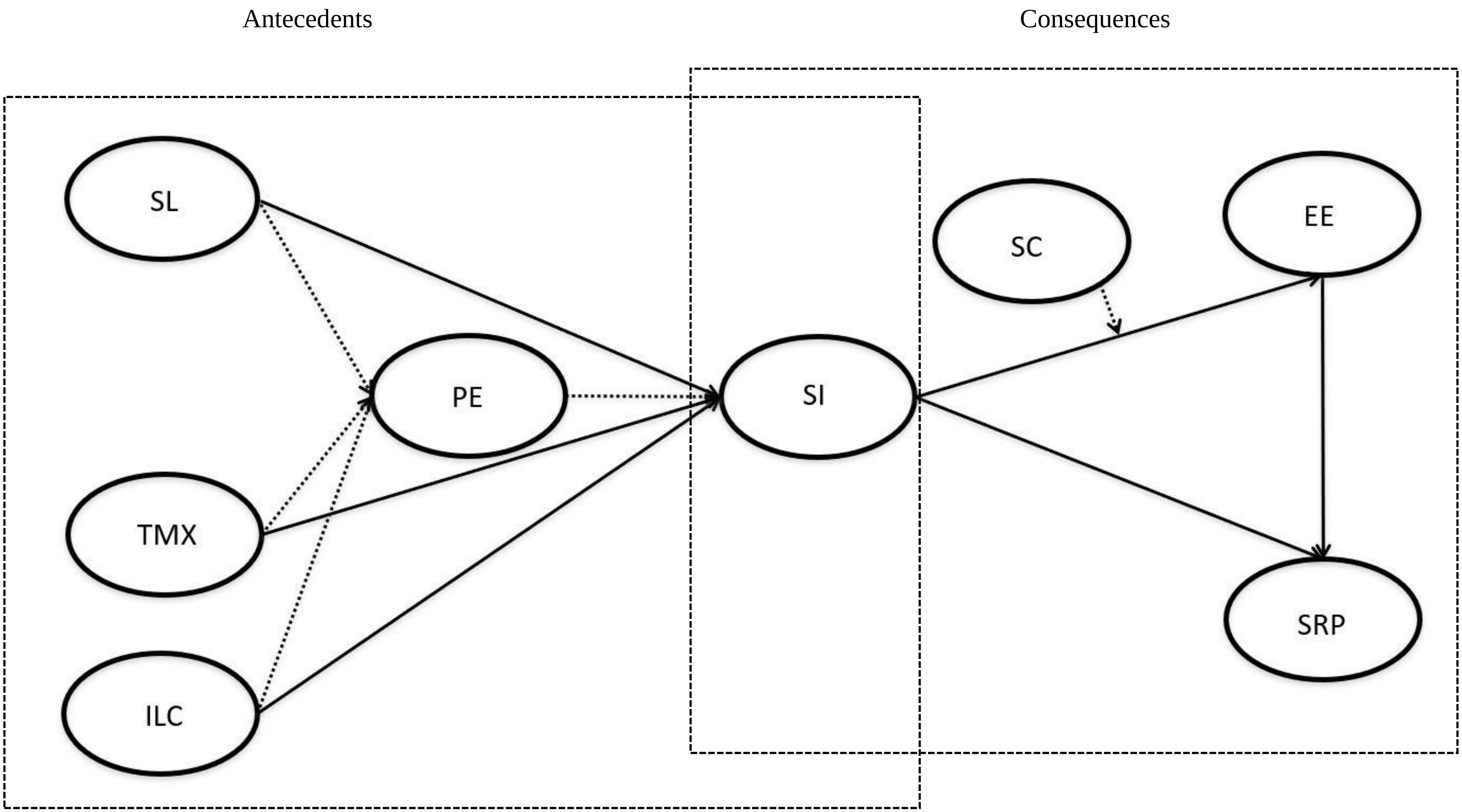
One possible job resource that allows service employees to minimize emotional exhaustion from service improvisation may be a social environment that reduces resource loss. Team members supporting each other in producing creative solutions can be that social environment. Thus, this study proposes that support for creativity is a job resource that helps in coping with demanding service failures. Support for creativity is the extent to which team members support other members in advancing creative solutions and ideas (Madjar et al., 2002). Support for creativity encourages positive moods which, in turn, fosters more employee creativity (Madjar et al., 2002). Therefore, when service employees improvise to respond to unexpected service failures in a work environment with high support for creativity, they may be less likely to suffer emotional exhaustion. In summary, when supervisors and co-workers support creative ideas or activities, employees should be able to better cope with the demands of the job. Thus, the following hypothesis is proposed:

> H10: The relationship between service improvisation and emotional exhaustion is moderated by support for creativity, with the relationship weakening among restaurant frontline employees who have high support for creativity.

Proposed Relationships

Figure 2.1 illustrates the focus of the study. Servant leadership, team-member exchange, internal control of locus, and psychological empowerment are antecedents of service improvisation. Service recovery performance and emotional exhaustion are consequences of service improvisation. Support for creativity is a moderator between service improvisation and emotional exhaustion.

Figure 2.1 Overarching Model



SL = servant leadership; TMX = team-member exchange; ILC = internal locus of control; PE = psychological empowerment; SI = service improvisation; EE = emotional exhaustion; SRP = service recovery performance; SC = support for creativity

Chapter 3 - Methodology

Introduction

This chapter describes this study's research methodology for an empirical test of proposed hypotheses. The procedures for testing the proposed model are presented in Figure 3.1.

Figure 3.1 Procedures for Testing Antecedents and Consequences of Service Improvisation

1. Validated Measurement Identification
    - Literature Review
    - Identifying measurements of the main constructs

↓

2. Survey Questionnaire Development
    - Modifying measurement items to a restaurant context
    - Refining the measurement items

↓

3. Institutional Review Board Approval
    - Applying for and receiving IRB approval (see Appendix B)

↓

4. Pre-Test and Pilot Test
    - Pre-test (n=12)
    - Pilot test the survey instrument (n=44)
    - Testing reliability and validity

↓

5. Data Collection
    - Collecting 574 usable samples for antecedent study
    - Collecting 574 usable samples for consequence study

↓

6. Data Analysis
    - Descriptive statistics
    - Confirming reliability and validity
    - Testing the proposed hypotheses using hierarchical multiple regression analysis

Survey Questionnaire Development

From the literature review, previously validated scales were chosen, and all questionnaires were set in a format using a 7-point Likert-type scale anchored at 1 for *strongly disagree*, 2 for *disagree*, 3 for *somewhat disagree*, 4 for *neither agree nor disagree*, 5 for *somewhat agree*, 6 for *agree*, and 7 for *strongly agree*. A section with a total of ten constructs were used in the questionnaire along with a section collecting demographic information. Table 3.1 presents the list of all measurement items. Questions were revised to reflect the restaurant context. The questionnaire consisted of nine sections:

(1) Section 1 requested demographic information.

(2) Section 2 covered measurement of servant leadership.

(3) Section 3 covered measurement of team-member exchange.

(4) Section 4 covered measurement of internal locus of control.

(5) Section 5 covered measurement of psychological empowerment.

(6) Section 6 covered measurement of service improvisation.

(7) Section 7 covered measurement of emotional exhaustion.

(8) Section 8 covered measurement of service recovery performance.

(9) Section 9 covered measurement of support for creativity.

(10) Section 10 covered measurement of social desirability bias.

Servant leadership

The original servant leadership scale had 28 measurement items. However, this study used a shortened version with 7 items, selected based on the highest factor loadings or the mean relative importance of measurement items (Liden, Wayne, Liao, & Meuser, 2014). Each item represents one of the seven domains of servant leadership: 1) emotional healing, 2) creating value for the community, 3) conceptual skills, 4) empowering, 5) helping subordinates grow and succeed, 6) putting subordinates first, and 7) behaving ethically (Liden et al., 2014). Prior studies have validated the shortened version of the servant leadership scale by comparing the shortened 7-item version (SL-7) with the original 28-item version of the servant leadership scale (Liden et al., 2014; Liden et al., 2008). Both versions have reported reliable Cronbach's alpha, as noted in the literature. Studies using the 28-item version have Cronbach's alpha coefficients higher than 0.90 (Zou, Tian, & Liu, 2015; Panaccio, Henderson, Liden, Wayne, & Cao, 2015). For the SL-7 version, Chughtai (2016) reported a Cronbach's alpha coefficient of 0.85. Zhao, Liu, and Gao (2016) reported a Cronbach's alpha coefficient of 0.71.

Although more measurement items in a scale may improve reliability and decrease measurement error (Franke, Rapp, & Andzulis, 2013), a study validated the SL-7 version by comparing it with the 28-item version, confirming the internal consistency of the SL-7 version (Liden, Wayne, Meuser, Hu, Wu, & Liao, 2015). Furthermore, a shortened version of a scale may take less time to complete and thus increase response rates and data quality (Franke et al., 2013). Therefore, servant leadership in the current study was measured using the 7 item, shortened version of the servant leadership scale developed by Liden et al. (2008). Table 3.1 presents the list of measurement items.

Team-Member Exchange

Team-member exchange (TMX) was measured using the 10 item TMX scale, developed by Seers (1989). The TMX scale has been used to capture the quality of reciprocal exchanges between a member and a focal group in sharing ideas, providing feedback, sharing resources, sharing knowledge, offering recognition, and providing effort (Banks et al., 2014; Seers, 1989; Seers et al., 1995).

As Table 3.1 shows, the original items were changed to make them appropriate for the scale, following Farmer, Van Dyne, and Kamdar's (2015) suggestions; so, for example, one original item ("In busy situations, how often do you volunteer your efforts to help others on your team?") became "In busy situations, I often volunteer my efforts to help others on my team" to measure how much respondents agree with each question.

Previous studies have reported the Cronbach's alpha coefficient for this measure. Liao et al. (2013) reported 0.75, and Zou, Tian, and Liu (2015) reported 0.88. Table 3.1 presents the measurement items for team-member exchange.

Internal locus of control

Using "Work Locus of Control" is more suitable than using a general locus of control scale because this study measures work specific locus of control (Wang et al., 2010; Zigarmi, Galloway, & Roberts, 2018). Work locus of control measures both internal and external locus of control with 8 items each (Spector, 1988), but because this study focuses on internal locus of control, internal locus of control was assessed using Spector's (1988) 8 items that measured Work locus of control. Items for internal locus of control selected from items in work locus of control measured whether an individual believed his or her efforts and behaviors determined outcomes at work (Spector, 1988).

Tong and Wang (2012) reported a 0.7 Cronbach's alpha coefficient for these items, Martin, Thomas, Charles, Epitropaki, and McNamara (2005) reported 0.72 and a 0.76 Cronbach's alpha coefficient from two different samples, and Zigarmi et al. (2018) reported

Cronbach's alpha coefficient of 0.72. Table 3.1 presents the measurement items for internal locus of control.

Psychological empowerment

Psychological empowerment was measured using a 12-item scale adopted from Spreitzer (1995). The 12-item scale includes four sub-dimensions of psychological empowerment: meaning (e.g., "The work I do is meaningful to me"); competence (e.g., "I am confident about my ability to do my job"); self-determinations (e.g., "I have significant autonomy in determining how I do my job"); and impact (e.g., "I have significant influence over what happens in my department"). Items for psychological empowerment measure the extent to which employees value their jobs (i.e., meaning), employees believe in their ability to perform tasks (i.e., competence), employees have control over their own decisions at work (i.e., self-determination), and employees believe their performance affects organizational outcomes (i.e., impact). In using the psychological empowerment scale, Chiang and Hsieh (2012) reported Cronbach's alpha coefficient of 0.85 and Dust, Resick, and Mawritz (2014) reported a Cronbach's alpha coefficient of 0.87. Table 3.1 presents the measurement items for psychological empowerment.

Service improvisation

Service improvisation was measured using a 9-item scale adopted from service improvisation competence (Serv-IC) developed by Secchi (2012). Serv-IC is a second-order latent variable consisting of three first-order latent variables: spontaneity, creativity, and bricolage (Secchi, 2012). According to Secchi (2012), measuring competence directly is almost impossible, but measuring behavior allows us to infer competence. Therefore, Serv-IC was used to measure a behavioral aspect of service improvisation in this study.

Items for Serv-IC measure the extent to which individuals perform with creativity (e.g., “I often deviate from standard routines to respond to guest requests”); spontaneity (e.g., “I often have to respond in the moment to unexpected problems”); and bricolage (e.g., I often pull information from many different sources to respond to guest requests). These represent the three sub-dimensions of Serv-IC (Secchi, 2012).

Although, Secchi (2012) did not report a Cronbach’s alpha coefficient for measurement items, a Confirmatory Factor Analysis (CFA) was performed to verify the reliability of this second-order construct. Secchi (2012) reported goodness of fit indices ($\chi^2 = 48.14$, $df = 24$, $p < .001$, RMSEA = .087, CFI = .938) with a composite reliability of 0.80 and average variance extracted (AVE) of 0.61 for Serv-IC. Table 3.1 presents the list of measurement items for Serv-IC. Table 3.1 presents the measurement items for service improvisation.

Emotional exhaustion

Emotional exhaustion was measured using the 8-item scale adopted from the Maslach Burnout Inventory (Maslach & Jackson, 1981). Items for emotional exhaustion measure the degree to which individual emotional states affect performance due to drained mental energy from excessive job demand or work stress (Maslach & Goldberg, 1998; Maslach et al., 2001). Prior studies have shown Cronbach’s alpha coefficients of 0.90 (Han, Bonn, & Cho, 2016) and 0.91(Day, Crown, & Ivany, 2017). Table 3.1 provides the questions for emotional exhaustion.

Service recovery performance

Service recovery performance was measured using the 8-item scale developed by Boshoff and Allen (2000). Items for service recovery performance measure frontline service employee perceptions of their ability to resolve customer service failtures (Babakus, Yavas, Karatepe, & Avci, 2003). Prior studies have reported Cronbach’s alpha coefficients of 0.85 (Choi et al., 2014) and 0.82 (Luo, Guchait, Lee, & Madera, 2019). Table 3.1 lists the measurement items for service recovery performance.

Support for creativity

Support for creativity was measured using the 7-item scale by Madjar et al. (2002). This scale measures supervisor support for creativity. Prior studies have reported Cronbach's alpha coefficients of 0.86 (Baer & Oldham, 2006) and 0.87 (Binnewies & Gromer, 2012). Table 3.1 provides all measurement items for support for creativity.

Social Desirability Bias

Social desirability bias was measured using the 13-item scale adapted from Crowne and Marlowe (1960). Social desirability "refers to the need for social approval and acceptance and the belief that it can be attained by means of culturally acceptable and appropriate behaviors" (Crowne & Marlowe, 1964, p. 109). This scale measures the degree to which individuals tend to present themselves favorably while hiding their true feelings, leading to biased participant responses to surveys (Crowne & Marlowe, 1964). Table 3.1 lists all measurement items for social desirability bias.

Control variables

Based on the literature review, several control variables were included to allow a rigorous test of the proposed model. A study of frontline hotel employees found that the type of hotel and affiliation affected service improvisation (Secchi, 2012; Secchi et al., 2016). Therefore, the type of restaurant (e.g., fast food, fast casual, casual dining, or fine dining) and affiliation (e.g., franchise, non-franchised) were included as control variables.

Job tenure was included because improvisation is action that builds on routines and/or employee base skills, affecting their decisions when they engage in an unexpected situation requiring improvisation (Crossan et al., 1996). Job tenure is positively related with job performance (Quińones, Ford, & Teachout, 1995). Therefore, individual level of performance skills is a determinant of improvisational behavior and allows improvisors to confidently perform work that requires departing from the routine (Crossan et al., 1996; Weick, 1998).

Service recovery performance is affected by demographic variables (Ashill, Rod, & Carruthers, 2008) like education level, gender, and age (e.g., Guchait et al., 2014; Guchait, Simons, & Pasamehmetoglu, 2016; Luo et al., 2019). Therefore, they were also included as control variables.

Table 3.1 Descriptions of Measurement of Constructs for the Study

Dimensions	Measures	Source
Service Improvisation (SI)	**Spontaneity** 1. I often have to figure out actions in the moment (SI1). 2. I often have to respond in the moment to unexpected problems (SI2). 3. I almost always deal with unanticipated events on the spot (SI3). **Creativity** 4. I often deviate from standard routines to respond to guests' requests (SI4). 5. I often try new approaches to solve guests' problems (SI5). 6. I often have to be creative to satisfy customers' needs (SI6). **Bricolage** 7. I often pull information from many different sources to respond to guests' requests (SI7). 8. I am able to make use of all the resources provided by my employer to respond to guests' requests (SI8). 9. I often make use of several other workers' expertise to satisfy guests (SI9).	Secchi (2012)
Servant Leadership (SL)	1. My immediate manager can tell if something work-related is going wrong (SL1). 2. My immediate manager makes my career development a priority (SL2). 3. I would seek help from my immediate manager if I had a personal problem (SL3). 4. My manager emphasizes the importance of giving back to the community (SL4).	Liden et al. (2008)

	5. My immediate manager puts my best interests ahead of his/her own (SL5). 6. My immediate manager gives me the freedom to handle difficult situations in the way that I feel is best (SL6). 7. My immediate manager would NOT compromise ethical principles in order to achieve success (SL7).	
Team-Member Exchange (TMX)	1. I make suggestions about better work methods to other team members (TMX1). 2. Other team members usually let me know when I do something that makes their job easier (TMX2). 3. I let other team members know when they have done something that makes my job easier (TMX3). 4. Other members of my team recognize my potential (TMX4). 5. Other members of my team understand my problems and needs (TMX5). 6. I am flexible about switching job responsibilities to make things easier for other team members (TMX6). 7. In busy situations, other team members ask me to help out (TMX7). 8. In busy situations, I volunteer my efforts to help others on my team (TMX8). 9. I am willing to help finish work that had been assigned to others (TMX9). 10. Other members of my team help finish work that was assigned to me (TMX10).	Seers (1989)
Internal Locus of Control (ILC)	1. A job is what you make of it (ILC1). 2. On most jobs, people can pretty much accomplish whatever they set out to accomplish (ILC2). 3. If you know what you want out of a job, you can find a job that gives it to you (ILC3). 4. If employees are unhappy with a decision made by their boss, they should do something about it (ILC4). 5. Most people are capable of doing their jobs well if they make the effort (ILC5). 6. Promotions are given to employees who perform well on the job (ILC6). 7. People who perform their jobs well generally get rewarded (ILC7). 8. Most employees have more influence on their supervisors than they think they do (ILC8).	Spector (1988)
Psychological Empowerment (PE)	***Meaning*** 1. The work I do is very important to me (PE1). 2. My job activities are personally meaningful to me (PE2). 3. The work I do is meaningful to me (PE3). ***Competence*** 4. I am confident about my ability to do my job (PE4).	Spreitzer (1995)

	5. I am self-assured about my capabilities to perform my work activities (PE5). 6. I have mastered the skills necessary for my job (PE6). ***Self-determination*** 7. I have significant autonomy in determining how I do my job (PE7). 8. I can decide on my own how to go about doing my work (PE8). 9. I have considerable opportunity for independence and freedom in how I do my job (PE9). ***Impact*** 10. My impact on what happens in my department is large (PE10). 11. I have a great deal of control over what happens in my restaurant (PE11). 12. I have significant influences over what happens in my restaurant (PE12).	
Emotional Exhaustion (EE)	1. I feel emotionally drained from my work (EE1). 2. I feel used up at the end of the workday (EE2). 3. I feel fatigued when I get up in the morning and have to face another day on the job (EE3). 4. Working with people all day is really a strain for me (EE4). 5. I feel burned out from my work (EE5). 6. I feel frustrated by my job (EE6). 7. I feel I am working too hard on my job (EE7). 8. I feel like I am at the end of my rope (EE8).	Maslach & Jackson (1981)
Service Recovery Performance (SRP)	1. Considering all the things I do, I handle dissatisfied customers quite well (SRP1). 2. I don't mind dealing with complaining customers (SRP2). 3. No customer I deal with leaves with problems unresolved (SRP3). 4. Satisfying complaining customers is a great thrill to me (SRP4). 5. Complaining customers I have dealt with in the past are among today’s most loyal customers (SRP5).	Boshoff & Allen (2000)
Support for Creativity (SC)	1. My supervisor discusses with me my work-related ideas in order to improve them (SC1). 2. My coworkers other than my supervisor are always ready to support me if I introduce an unpopular idea or solution at work (SC2). 3. My supervisors support experimentation with new methods and ways of doing things (SC3). 4. My supervisor gives me useful feedback about my ideas concerning the workplace (SC4). 5. My coworkers other than my supervisor give me useful feedback about my ideas concerning the workplace (SC5).	Madjar et al. (2002)

	6. My supervisor is always ready to support me if I introduce an unpopular idea or solution at work (SC6). 7. My coworkers other than my supervisor are almost always supportive when I come up with a new idea about my job (SC7).	
Social Desirability Bias (SDB)	1. It is sometimes hard for me to go on with my work if I am not encouraged (SDB1). 2. I sometimes feel resentful when I don't get my way (SDB2). 3. On a few occasions, I have given up doing something because I thought too little of my ability (SDB3). 4. There have been times when I felt like rebelling against people in authority even though I knew they were right (SDB4). 5. No matter who I'm talking to, I'm always a good listener (SDB5).* 6. There have been occasions when I took advantage of someone (SDB6). 7. I'm always willing to admit it when I make a mistake (SDB7).* 8. I sometimes try to get even rather than forgive and forget (SDB8). 9. I am always courteous, even to people who are disagreeable (SDB9).* 10. I have never been irked when people expressed ideas very different from my own (SDB10).* 11. There have been times when I was quite jealous of the good fortune of others (SDB11). 12. I am sometimes irritated by people who ask favors of me (SDB12). 13. I have never deliberately said something that hurt someone's feelings (SDB13).*	Reynolds (1982)

Note: *Reverse coded

Pre-Test and Pilot-Test

As a pre-test, four faculty members, four current restaurant employees, and four hospitality graduate students with restaurant work experience were recruited to assess the content of the questionnaire, specifically the clarity of the questions and measurement items, wording, and anything else to improve the survey quality. Based on their recommendations, the initial survey questionnaire was slightly modified. For example, one question asked, "How busy you are at work?" to discover how many customers the employee had to cover. However, setting the range of customers on a seven-point scale was difficult. Thus, the question was altered to ask directly for the number of customers served. In addition, each survey question was simplified and made more concise. For example, one question began "The following statements are about how you deal with unexpected and urgent situations at work. For each statement listed below, indicate how much you agree or disagree. Your answer will remain confidential and information about you will not be identified in any way." This was changed to "The following statements are about how do you deal with unexpected and urgent situations at work. For each statement, indicate how much you agree or disagree." Information about confidentiality was described in the cover letter.

Then, a pilot test with 44 participants were recruited through Amazon Mechanical Turk to identify any issues with the study design and testing the hypotheses by assessing the reliability of measurement items. Out of a total 82 survey participants, 24 were screened out because they were in managerial positions, and another 14 were excluded based on the attention check questions. A total of 44 participants provided data for the pilot test.

Cronbach's alpha coefficient for each construct was satisfactory (> 0.7) (Cronbach, 1951), with service improvisation at 0.8, servant leadership at 0.8, TMX at 0.8, internal locus of control at 0.8, psychological empowerment at 0.9, emotional exhaustion at 0.9, service recovery performance at 0.8, support for creativity at 0.8, and social desirability bias at 0.8. The pilot test uncovered no major issues. It did reveal that the average number of customers each employee covered was approximately 100 people per day. Based on this, seven ranges (1 = 0-25, 2 = 25-50, 3 = 50-75, 4 = 75-100, 5 = 100-125, 6 = 125-150, 7 = 150-More) were defined for survey questions 16 (On a daily average during weekday (Monday - Friday), how many customers do you serve during your shift ?) and 17 (On a daily average during weekend (Saturday - Sunday), how many customers do you serve during your shift ?).

Based on the pre-test and pilot test, data were collected twice for antecedents of service improvisation and for consequences of service improvisation to increase survey participant rates and reliability by reducing the number of questionnaires. Appendix A presents the final online survey questionnaire.

Sample Selection

The target population for this study was frontline restaurant employees working in non-managerial positions in the United States. Frontline employees are employees who interact with customers directly or indirectly to fulfill their needs (Hochschild, 1983). Frontline employees are important because they interact with customers regularly while their work may lead to higher levels of emotional exhaustion because they do continuously interact with a variety of customers (Li, Wong, & Kim, 2017). Indeed, frontline employees are often confronted with a variety of requests from customers under demanding work conditions, which encourages frontline employees to improvise (Secchi, 2012; Secchi et al., 2016). Their interactions with customers are vital in recovering service failures (Cambra-Fierro, Melero-Polo, & Vázquez-Carrasco, 2014). To understand the possible impact of management leadership style (i.e., servant leadership), social exchange quality (i.e., TMX), and the effect of subordinate personality (i.e., internal locus of control) on improvisational behavior, only frontline employees working in non-managerial positions were recruited.

G*Power (3.1.9.2) was used to determine the minimum sample size needed for this study. The result of G*Power analysis revealed that because the current study had seven predictors, a minimum sample size of 153 was required. In addition, a typical sample size for structural equation modeling is approximately 200 samples (Kline, 2015). Specifically, Kline (2015) suggested at least five samples per measurement item is necessary for structural equation modeling. The total number of measurement items was 79; thus, a minimum of 395 samples were needed for reliable results using structural equation modeling. Taken together, the total number of samples for this study was targeted at 574 for each study: study 1 (i.e., antecedents of service improvisation) and study 2 (i.e., consequences of service improvisation).

Data Collection Procedures

After refining the questionnaires using the pre-test and pilot test, online questionnaires were distributed to survey participants through Amazon Mechanical Turk (AMT); responses were needed from frontline restaurant employees in the United States. Recent studies have shown that the data collected from AMT are reliable (Arch & Carr, 2016; Buhrmester, Kwang, & Gosling, 2011; Daly & Nataraajan, 2015; Goodman, Cryder, & Cheema, 2013). Buhrmester et al. (2011) found that data obtained from AMT are as reliable as data collected using traditional methods. AMT became popular among researchers in social sciences and psychology because of the cost of data collection was low, and collection could take only a short time (Goodman et al., 2013). In addition, researchers can gather data representing the general population through demographically diverse people in a large participant pool (Buhrmester et al., 2011).

To encourage survey participation rates, financial incentives ($1.40) were offered to the participants who completed their survey. Three screening questions were included at beginning of the survey in addition to two attention check questions that were included to improve data quality. A survey participant must answer the screening questions to verify that they meet the minimum qualifications to complete the survey. The screening questions are as follows: 1. “Are you currently living in the United States?”; 2. “What is your employment status?”; and 3. “Have you worked at the current restaurant 3 or more months?" If a survey participant was not qualified, the survey ended with a message describing the minimum requirements to participate. The attention check question was, "Please select strongly disagree; otherwise you are no longer eligible for further participation in the survey."

Data Analysis

Normal distribution of sample data was checked by examining the shape of the data distribution on a histogram. Multicollinearity among the constructs was checked using independent variable variance inflation factor (VIF). To satisfy the VIF threshold requires a score of less than 10 (O'Brien, 2007). After data screening was complete, reliability of each construct was tested using Cronbach's alphas (> 0.7) (Cronbach, 1951). Descriptive statistics were used to summarize basic information of the study samples to assess the central tendency of data (i.e., mean) and variability (i.e., standard deviation) of each construct and demographic characteristics.

The confirmatory factor analysis (CFA) was performed to verify reliability, convergent validity, and discriminant validity of the study variables using AMOS in the first step. Reliability was checked based on composite reliabilities (CR) value, which was required to be 0.7 or more (Hair, Black, Babin, & Anderson, 2010). To confirm convergent validity, the average variance extracted (AVE) was checked with the recommended threshold higher than 0.5 (Hair et al., 2010). To assess discriminant validity between constructs, the recommended threshold was the square root of AVE for each factor was more than inter-correlations between two selected constructs (Hair et al., 2010; Hu & Bentler, 1999).

The goodness of the proposed model fit to the data was tested using the values of the Tucker-Lewis Index, Comparative Fit Index, and Incremental Fit Index, which must all satisfy a threshold of 0.9 or higher (Byrne, 2010), the Root-Mean-Square Error of Approximation had to be between 0.04 and 0.08, and a Chi-square *p* value higher than 0.05 (Turner & Reisinger, 2001). Statistical significance levels of 0.05, 0.01, and 0.001 were used to test the hypotheses.

Common method bias may occur in the proposed relationships among variables because the data was collected from single source and the measurements were self-rated (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). A robust supplementary test was performed by controlling for the effects of a directly measured latent methods factor using the social desirability variable, which is assumed to represent common methods variance (Podsakoff et al., 2003). As such, a specific bias factor (i.e., social desirability bias) was included for the chi-square difference test (Podsakoff et al., 2003). Then, a fully constrained model and an unconstrained model were compared after including a common latent factor in the proposed model. The results showed that the two models are different confirming common method bias. Following the recommendation of Gaskin (2016), directly measured social desirability bias construct was included for further hypothesis tests.

After confirming reliability and validity of the constructs via CFA, all factor scores of the measurement items were imputed for further hypothesis testing (Gaskin, 2016; “Obtaining Factor”, n.d.). Hierarchical multiple regression analysis was performed using SPSS to test the six proposed hypotheses to find antecedents of service improvisation. Eleven control variables were included in the first block: type of restaurant, restaurant affiliation, the number of serving customers during weekday, the number of serving customers during weekend, job tenure in the current restaurant, job tenure in the hospitality industry, time working with a current immediate supervisor, social desirability bias, gender, age, and education.

The SPSS PROCESS macro (model 4) was used to assess the mediating effect of psychological empowerment on the relationship between proposed antecedents of service improvisation (i.e., servant leadership, team-member exchange, internal locus of control) and service improvisation (Hayes, 2017).

To investigate a double-edged sword effect of service improvisation, hierarchical multiple regression analysis was employed to test the four hypotheses related to consequences (i.e., emotional exhaustion, service recovery performance) of service improvisation, including moderating effect of support for creativity between service improvisation and emotional exhaustion. Nine control variables were included in the first block: the number of serving customers (weekday), the number of serving customers (weekend), job tenure in the current restaurant, job tenure in the hospitality industry, time working with a current immediate supervisor, social desirability bias, gender, age, and education.

Chapter 4 - Results

In this chapter, the results of the current study are presented, including demographic profiles of respondents, construct validity and reliability, common method bias, and hypotheses tests.

Antecedents of Service Improvisation

Demographics Profile of Respondents

More than half the restaurant frontline employees working in non-managerial positions in the U.S. were servers, while the rest held other positions: host, bartender, and busser. Almost three-fourths of the respondents have been employed in the general hospitality industry for three years or less while most have worked for their current restaurant for nearly two years as full-time employees of franchised restaurants. Table 4.1 provides a summary of the demographic information.

Table 4.1 Demographic Profile of Respondents (N=574)

Characteristics	Frequency	Percentage
Gender		
Male	308	53.7%
Female	266	46.3%
Age		
18 – 22 years	40	7.0%
23 – 27 years	112	19.5%
28 – 32 years	174	30.3%
33 – 37 years	112	19.5%
38 – 42 years	57	9.9%
43 – 47 years	41	7.1%
Order than 48 years	38	6.6%
Job tenure with a current immediate supervisor		
3 – 6 months	102	17.8%
6 − 9 months	141	24.6%
9 − 12 months	149	26.0%
12 − 15 months	81	14.1%
15 − 18 months	21	3.7%
18 − 21 months	18	3.1%
Longer than 21 months	62	10.8%
Job tenure in the current restaurant		
3 – 6 months	76	13.2%

6 − 9 months	116	20.2%
9 − 12 months	134	23.3%
12 − 15 months	92	16.0%
15 − 18 months	43	7.5%
18 − 21 months	23	4.0%
Longer than 21 months	90	15.7%
Job tenure in the hospitality industry		
Less than 6 months	42	7.3%
6 − 12 months	117	20.4%
12 − 18 months	106	18.5%
18 − 24 months	69	12.0%
24 − 30 months	47	8.2%
30 − 36 months	32	5.6%
Longer than 36 months	161	28.0%
Average customers daily served during weekday		
0 – 25 customers	57	9.9%
25 − 50 customers	154	26.8%
50 − 75 customers	164	28.6%
75 − 100 customers	98	17.1%
100 − 125 customers	41	7.1%
125 − 150 customers	25	4.4%
More than 150 customers	35	6.1%
Average customers daily served during weekend		
0 – 25 customers	30	5.2%
25 − 50 customers	99	17.2%
50 − 75 customers	132	23.0%
75 − 100 customers	122	21.3%
100 − 125 customers	88	15.3%
125 − 150 customers	43	7.5%
More than 150 customers	60	10.5%
Position		
Server	316	55.1%
Host	110	19.2%
Bartender	96	16.7%
Busser	33	5.7%
Others	19	3.3%
Restaurant Type		
Fast food restaurant	142	24.7%
Fast causal restaurant	101	17.6%
Casual dining restaurant	243	42.3%
Fine dining	79	13.8%
Others	9	1.6%
Restaurant affiliation		
Franchised	343	59.8%
Non-Franchised (Independent)	231	40.2%
Employment Status		
Full-time	389	67.8%
Part-time	185	32.2%
Education level		
Less than high school diploma	3	0.5%
High school graduate	122	21.3%
Associate degree	120	20.9%
Bachelor’s degree	262	45.6%
Graduate degree	67	11.7%
Marital Status		
Married	277	48.3%

Single	269	46.9%
Widow	4	0.7%
Divorced	22	3.8%
Prefer not to answer	2	0.3%
Ethnicity		
African American	65	11.3%
Asian	31	5.4%
Caucasian	405	70.6%
Native American	35	6.1%
Hispanic	37	6.4%
Others	1	0.2%

Constructs Validity and Reliability

Confirmatory factor analysis (CFA) was performed to examine convergent and discriminant validity. The initial results of CFA showed a weak fit of the model to the data (χ^2 = 5427.095, df = 1630, $p < .001$, $\chi2/df$ = 3.330, RMSEA = 0.064, CFI = 0.792, TLI = 0.782, IFI = 0.793) (Hair et al., 2010; Hu & Bentler, 1999). Composite reliability (CR) was all above 0.7, indicating the reliability of all the constructs is satisfactory (Hair et al., 2010). Although researchers could determine convergent validity based on CR alone showing above 0.7 even if AVE is less than 0.5, a more robust measure of CR is AVE in confirming convergent validity (Fornell & Larcker, 1981; Malhotra & Dash, 2011). Thus, the current study used AVE as a threshold to confirm convergent validity for more robust hypotheses tests. As Table 4.2 shows, except for service improvisation and psychological empowerment, an initial CFA revealed that AVE for team-member exchange (TMX), servant leadership (SL), and internal locus of control (ILC) did not satisfy the threshold, higher than 0.5, which means the requirements for convergent validity were not met (Hair et al., 2010; Hu & Bentler, 1999).

Discriminant validity was not satisfied either, as Table 4.2 shows, because the square root of the AVE for internal locus of control (ILC) is not greater than its correlation with team-member exchange (TMX), servant leadership (SL), service improvisation (SI), and psychological empowerment (PE) (Hair et al., 2010; Hu & Bentler, 1999). Similarly, discriminate validity was not met between PE and TMX, between PE and SL, and between SI and TMX.

Table 4.2 Composite Reliabilities, Correlations, and Squared Root of AVE

	CR	AVE	TMX	SL	SI	PE	ILC
TMX	0.884	0.434	0.659 [a]				
SL	0.853	0.466	0.530*** [b]	0.682			
SI	0.883	0.721	0.797***	0.513***	0.849		
PE	0.810	0.526	0.717***	0.801***	0.649	0.725	
ILC	0.848	0.419	0.776***	0.669***	0.710***	0.824***	0.647

Note: [a] Square root of the AVE is along the diagonal; [b] Correlations are below the diagonal; *** $p < 0.001$; CR = composite reliability; AVE = average value extracted; TMX = team-member exchange; SL = servant leadership; SI = service improvisation; PE = psychological empowerment; ILC = internal locus of control.

To remedy this, the model was revised based on factor loadings, standardized residuals, and modification indices following recommended deleting measurements (Anderson & Gerbing, 1988; Hair et al., 2010; Kenny, 2011). It is recommended that factor loadings below 0.5 should be deleted if the deletion makes the model fit better (Anderson & Gerbing, 1988; Hair et al., 2010). Kenny (2011) recommended to delete items based on the largest standardized residuals. Brown (2015) suggested that items with standardized residuals higher than 2.58 are problematic items. Modification indices were used to determine possible cross-loading items (Hair et al., 2010) which requires researchers' decision in deleting items.

Eight of ten items for team-member exchange (TMX) were deleted: TMX1 (0.594) – "I make suggestions about better work methods to other team members"; TMX4 (0.684) – "Other members of my team recognize my potential"; TMX5 (0.633) – "Other members of my team understand my problems and needs"; TMX6 (0.662) – "I am flexible about switching job responsibilities to make things easier for other team members"; TMX7 (0.589) – "In busy situations, other team members ask me to help out"; TMX8 (0.692) – "In busy situations, I volunteer my efforts to help others on my team"; TMX9 (0.690) – "I am willing to help finish work that had been assigned to others"; and TMX10 (0.594) – "Other members of my team help finish work that was assigned to me".

Three of seven items for servant leadership (SL) were deleted: SL1 (0.415) – "My immediate manager can tell if something work-related is going wrong"; SL6 (0.573) – "My immediate manager gives me the freedom to handle difficult situations in the way that I feel is best"; and SL7 (0.529) – "My immediate manager would NOT compromise ethical principles in order to achieve success".

Five of eight items for internal locus of control (ILC) were excluded: ILC4 (0.428) – "If employees are unhappy with a decision made by their boss, they should do something about it"; ILC5 (0.552) – "Most people are capable of doing their jobs well if they make the effort"; ILC6 (0.646) – "Promotions are given to employees who perform well on the job"; ILC7 (0.685) – "People who perform their jobs well generally get rewarded"; and ILC8 (0.571) – "Most employees have more influence on their supervisors than they think they do".

Two of nine items for service improvisation (SI) were deleted: SI4 (0.576) – "I often deviate from standard routines to respond to guests' requests"; and SI8 (0.608) – "I am able to make use of all the resources provided by my employer to respond to guests' requests".

Two of twelve items for psychological empowerment (PE) were excluded: PE5 (0.798) – "I am self-assured about my capabilities to perform my work activities"; and PE6 (0.681) – "I have mastered the skills necessary for my job".

After deleting these measurement items, convergent validity, discriminant validity, and goodness of model fit were satisfied ($\chi^2 = 1229.569$, df = 474, $p < .001$, $\chi 2/df = 2.594$, RMSEA = 0.053, CFI = 0.930, TLI = 0.922, IFI = 0.930). As Table 4.3 shows, AVE for all the latent factors was higher than 0.5, confirming convergent validity. AVE is considered a more robust test of the reliability of measurement items than composite reliabilities (CR), which was also satisfied through the deletions with scores higher than 0.7 (Hair et al., 2010; Hu & Bentler, 1999). For discriminant validity, the square root of the AVE for each latent factor is greater than the correlation, confirming discriminant validity. Appendix C presents the final CFA model for the antecedent study in AMOS.

Table 4.3 Composite Reliabilities, Correlations, and Squared Root of AVE

	CR	AVE	TMX	SL	SI	PE	ILC
TMX	0.740	0.588	0.767 [a]				
SL	0.876	0.638	0.368*** [b]	0.799			
SI	0.858	0.672	0.742***	0.448***	0.820		
PE	0.909	0.717	0.607***	0.778***	0.622	0.847	
ILC	0.821	0.607	0.674***	0.510***	0.654***	0.724***	0.779

Note: [a] Square root of the AVE is along the diagonal; [b] Correlations are below the diagonal; *** $p < 0.001$; CR = composite reliability; AVE = average value extracted; TMX = team-member exchange; SL = servant leadership; SI = service improvisation; PE = psychological empowerment; ILC = internal locus of control.

Table 4.4 Confirmatory Factor Analysis: Items, Loadings, Means, Standard Deviation

Construct and Scale Item	SL	M (SD)
Team-Member Exchange (α = 0.738)		**5.341 (1.310)**
Other team members usually let me know when I do something that makes their job easier.	0.798	
I let other team members know when they have done something that makes my job easier.	0.734	
Servant Leadership (α = 0.875)		**4.362 (1.717)**
My manager makes my career development a priority.	0.789	
I would seek help from my manager if I had a personal problem.	0.759	
My manager emphasizes the importance of giving back to the community.	0.832	
My manager puts my best interests ahead of his/her own.	0.813	
Service Improvisation (α = 0.834)		**5.194 (1.360)**
I often have to figure out actions in the moment.	0.720	
I often have to respond in the moment to unexpected problems.	0.819	
I almost always deal with unanticipated events on the spot.	0.772	
I often try new approaches to solve guests’ problems.	0.828	
I often have to be creative to satisfy customers' needs.	0.794	
I often pull information from many different sources to respond to guests’ requests.	0.755	
I often make use of several other workers’ expertise to satisfy guests.	0.635	
Psychological Empowerment (α = 0.899)		**4.966 (1.509)**
The work I do is very important to me.	0.876	
My job activities are personally meaningful to me.	0.914	
The work I do is meaningful to me.	0.894	
I am confident about my ability to do my job.	0.284	
I have significant autonomy in determining how I do my job.	0.765	
I can decide on my own how to go about doing my work.	0.800	
I have considerable opportunity for independence and freedom in how I do my job.	0.822	
My impact on what happens in my department is large.	0.762	
I have a great deal of control over what happens in my department.	0.902	
I have significant influences over what happens in my department.	0.878	
Internal Locus of Control (α = 0.817)		**5.362 (1.333)**
A job is what you make of it.	0.739	
On most jobs, people can pretty much accomplish whatever they set out to accomplish.	0.862	
If you know what you want out of a job, you can find a job that gives it to you.	0.729	

Note: All factors loadings were significant at $p < 0.001$. SL = Standardized Loading. M = Mean. SD = Standard Deviation.

Common Method Bias

Because of growing criticism of Harman's single-factor test, Podsakoff et al. (2003) have proposed other methods for detecting common method variance. A specific bias factor (social desirability bias construct) appears to give more robust results in detecting common method variance (Podsakoff et al., 2003).

Specific bias tests include the zero constraints test, which reveals specific bias in the current model, and the equal constraints test, which shows whether bias is evenly distributed or if the current study model has bias (Gaskin, 2016). An AMOS plugin called specific bias tests was used; it was developed by Gaskin and Lim (2017).

Using social desirability bias construct, the zero constraints test was used between unconstrained model ($\chi^2 = 1152.234$, df = 454), depicted in Appendix D, and the zero constrained model ($\chi^2 = 1307.183$, df = 480), depicted in Appendix E. The chi-square test showed that the zero constrained model is significant ($\chi^2 = 154.949$, df = 26, $p < 0.001$), confirming that a shared variance exists across all the constructs. Because of significance of the chi-square test for the zero constraints model, the equal bias test was then used, comparing the unconstrained model ($\chi^2 = 1152.234$, df = 454), depicted in Appendix D, and the equal constrained model ($\chi^2 = 1344.417$, df = 479), depicted in Appendix F. This comparison demonstrates that the bias was unevenly distributed based on significant results from the chi-square test for the equal constraints model ($\chi^2 = 192.183$, df = 25, $p < 0.001$). In such cases, Gaskin (2016) recommends including the directly measured social desirability bias construct as a control variable to account for the common method variance for further causal analyses.

Hypotheses Test (Hierarchical Multiple Regression Analysis)

Data imputation in AMOS was used to extract latent constructs in a new SPSS dataset that contains the same factor loadings as the previous CFA (Gaskin, 2016; “Obtaining Factor”, n.d.). The hierarchical multiple regression was used to test the six hypotheses to uncover antecedents of service improvisation. All the hypotheses tests were performed after controlling for possible compounding factors with dependent variables. The 11 control variables are type of restaurant, restaurant affiliation, the number of customers served during weekdays, the number of customers served during weekends, job tenure in the current restaurant, job tenure in the hospitality industry, time working with the current immediate supervisor, social desirability bias, gender, age, and education.

As Table 4.5 shows, Model 1 includes all eleven control variables. Model 2 includes three antecedents after showing the eleven control variables were significant (F = 146,383, $p < 0.001$) in predicting service improvisation. Servant leadership ($\beta = 0.106$, $t = 3.798$, $p < 0.001$), team-member exchange ($\beta = 0.635$, $t = 19.431$, $p < 0.001$), internal locus of control ($\beta = 0.184$, $t = 5.168$, $p < 0.001$) were statistically significant, supporting hypotheses 1, 2, and 3.

Table 4.5 Multiple Regression Model for Predicting Service Improvisation

		Sum of Squares	df	Mean Square	F	Sig.
Model 1	Regression	60.364	11	5.488	8.541	0.000
	Residual	361.098	562	0.643		
	Total	421.462	573			
Model 2	Regression	331.138	14	23.653	146.383	0.000
	Residual	90.324	559	0.162		
	Total	421.462	573			

	Unstandardized Coefficients		**Standardized Coefficients**		
Model 1	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	3.752	0.281		13.345	0.000
Type of restaurant	0.004	0.036	0.005	0.124	0.901
Restaurant affiliation	0.031	0.071	0.018	0.432	0.666
The number of serving customers (Weekday)	0.012	0.033	0.023	0.380	0.704
The number of serving customers (Weekend)	0.059	0.031	0.112	1.861	0.063
Job tenure in the current restaurant	0.039	0.029	0.087	1.315	0.189
Job tenure in the hospitality industry	0.054	0.022	0.133	2.510	0.012
Time working with a current immediate supervisor	-0.063	0.029	-0.131	-2.137	0.033
Social desirability bias	-0.177	0.029	-0.255	-6.157	0.000
Gender	0.256	0.068	0.149	3.799	0.000
Age	0.008	0.004	0.077	1.897	0.058
Education	0.106	0.037	0.120	2.886	0.004
Model 2	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	0.603	0.161		3.743	0.000
Type of restaurant	-0.004	0.018	-0.005	-0.219	0.827
Restaurant affiliation	-0.010	0.036	-0.006	-0.281	0.779
The number of serving customers (Weekday)	0.009	0.017	0.017	0.547	0.584
The number of serving customers (Weekend)	-0.008	0.016	-0.015	-0.504	0.615
Job tenure in the current restaurant	-0.007	0.015	-0.016	-0.472	0.637
Job tenure in the hospitality industry	0.033	0.011	0.082	2.987	0.003
Time working with a current immediate supervisor	-0.023	0.015	-0.048	-1.517	0.130
Social desirability bias	-0.073	0.015	-0.105	-4.808	0.000
Gender	0.078	0.034	0.045	2.277	0.023
Age	-0.001	0.002	-0.010	-0.475	0.635
Education	0.051	0.019	0.058	2.733	0.006
Servant leadership (*H1*)	0.074	0.020	0.106	3.798	0.000
Team-member exchange (*H2*)	0.571	0.029	0.635	19.431	0.000
Internal locus of control (*H3*)	0.176	0.034	0.184	5.168	0.000

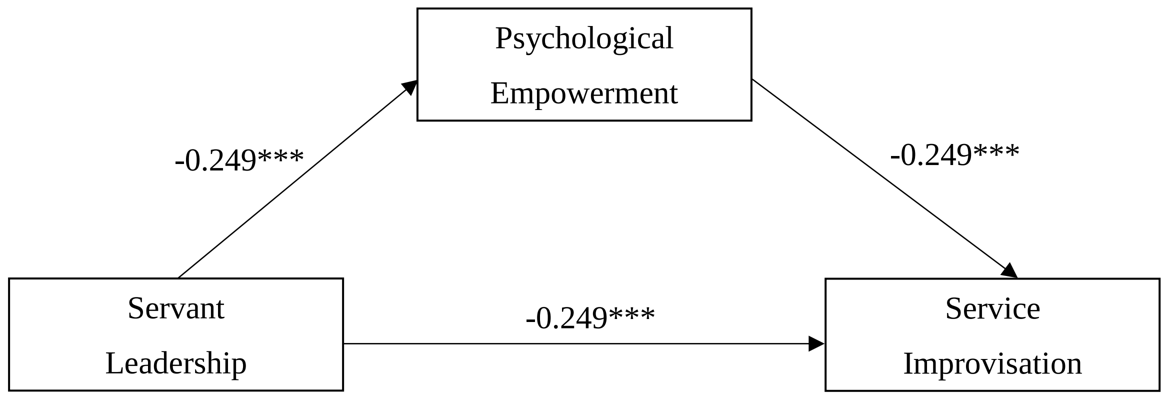
Note: Dependent variable = service improvisation.

Mediation Effects of Psychological Empowerment

The mediating roles of psychological empowerment between antecedents (servant leadership, team-member exchange, internal locus of control) and service improvisation were examined using the SPSS PROCESS macro (model 4) with 5,000 bootstrapping samples (Hayes, 2017). Figure 4.1 illustrates the mediation effect of psychological empowerment on the relationship between servant leadership and service improvisation. The results show a significant indirect effect ($\beta = 0.802$) of psychological empowerment on the relationship between servant leadership and service improvisation. The 95 percent confidence interval (CI) ranged from 0.691 to 0.912 confirming an indirect effect because CI does not include zero.

In addition, the results show servant leadership (independent variable) is a significant antecedent of service improvisation (dependent variable) ($\beta = -0.249$, t = 4.405, $p < 0.001$). Psychological empowerment (mediating variable) predicts service improvisation ($\beta = 0.918$, t = 16.726, $p < 0.001$). Servant leadership predicts psychological empowerment ($\beta = 0.874$, t = 38.041, $p < 0.001$). The total effect ($\beta = 0.874$, t = 38.04, $p < 0.001$) of servant leadership (independent variable) predicting service improvisation (dependent variable) was higher than the direct effect of servant leadership predicting service improvisation ($\beta = -0.249$, t = 4.405, $p < 0.001$), indicating partial mediation of psychological empowerment between servant leadership and service improvisation. Therefore, Hypothesis 4 was supported.

Figure 4.1 Mediating Effect of Psychological Empowerment between Servant Leadership and Service Improvisation

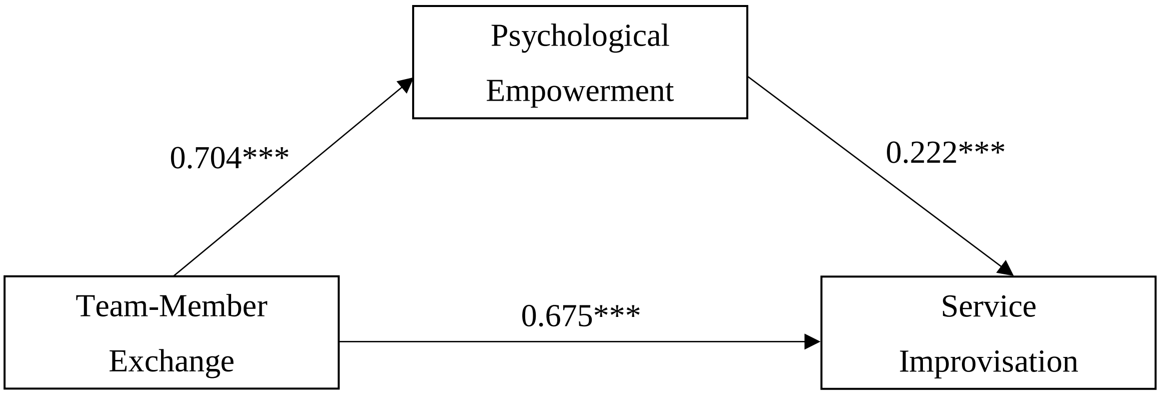


Note: *** $p < 0.001$, Total effect of servant leadership on service improvisation = 0.874 (direct effect = -0.249).

Figure 4.2 shows the mediating roles of psychological empowerment between team-member exchange and service improvisation. A significant indirect effect (β = 0.156) of psychological empowerment between team-member exchange and service improvisation was found with the 95 percent CI ranging from 0.108 to 0.208, confirming an indirect effect.

Specifically, the results show team-member exchange (independent variable) predicts service improvisation (dependent variable) ($\beta = 0.675$, $t = 22.304$, $p < 0.001$). Psychological empowerment (mediating variable) predicts service improvisation (dependent variable) ($\beta = 0.222$, $t = 7.220$, $p < 0.001$). Team-member exchange (independent variable) predicts psychological empowerment ($\beta = 0.704$, $t = 24.271$, $p < 0.001$). Total effect ($\beta = 0.831$, $t = 37.654$, $p < 0.001$) of team-member exchange (independent variable) predicting service improvisation (dependent variable) was higher than direct effect of team-member exchange predicting service improvisation ($\beta = 0.675$, $t = 22.304$, $p < 0.001$), indicating partial mediation of psychological empowerment between team-member exchange and service improvisation. Therefore, Hypothesis 5 is supported.

Figure 4.2 Mediating Effect of Psychological Empowerment between Team-Member Exchange and Service Improvisation

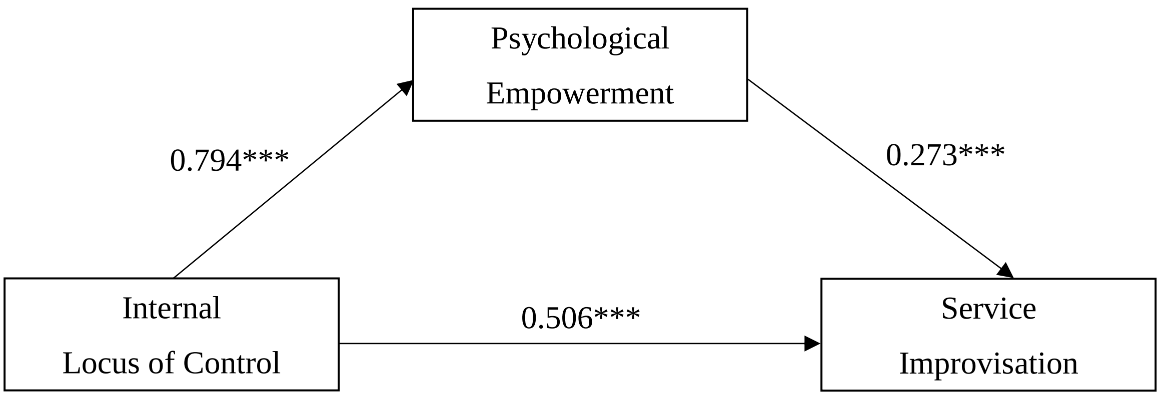


Note: *** p < 0.001, Total effect of team-member exchange on service improvisation = 0.831 (direct effect = 0.675).

As Figure 4.3 shows, psychological empowerment mediates the relationship between internal locus of control and service improvisation. The results show a significant indirect effect (β = 0.216) of psychological empowerment on the relationship between internal locus of control and service improvisation. The 95 percent CI ranged from 0.137 to 0.298, confirming an indirect effect.

In particular, the results show internal locus of control (independent variable) is a significant antecedent of service improvisation (dependent variable) (β = 0.506, t = 11.025, p < 0.001). Psychological empowerment (mediating variable) predicts service improvisation (dependent variable) (β = 0.273, t = 5.677, p < 0.001). Internal locus of control (independent variable) predicts psychological empowerment (mediating variable) (β = 0.794, t = 35.340, p < 0.001). The total effect (β = 0.772, t = 27.52, p < 0.001) of internal locus of control (independent variable) predicting service improvisation (dependent variable) was higher than direct effect of internal locus of control predicting service improvisation (β = 0.506, t = 11.025, p < 0.001), indicating partial mediation of psychological empowerment between internal locus of control and service improvisation. Therefore, Hypothesis 6 is supported.

Figure 4.3 Mediating Effect of Psychological Empowerment between Internal Locus of Control and Service Improvisation



Note: *** $p < 0.001$, Total effect of internal locus of control on service improvisation = 0.722 (direct effect = 0.506).

Consequences of Service Improvisation

Demographic Profile of Respondents

Table 4.6 shows summary of demographic profile of respondents for the consequence study. In general, characteristics of demographics profile of respondents for the consequence study shows the similar characteristics to the antecedent study.

Table 4.6 Demographic profile of respondents (N=574)

Characteristics	Frequency	Percentage
Gender		
Male	341	59.4%
Female	233	40.6%
Age		
18 – 22 years	44	7.7%
23 – 27 years	131	22.8%
28 – 32 years	200	34.8%
33 – 37 years	97	16.9%
38 – 42 years	53	9.2%
43 – 47 years	20	3.5%
Order than 48 years	29	5.1%
Job tenure with a current immediate supervisor		
3 – 6 months	127	22.1%
6 − 9 months	136	23.7%
9 − 12 months	127	22.1%
12 − 15 months	73	12.7%
15 − 18 months	42	7.3%
18 − 21 months	13	2.3%
Longer than 21 months	56	9.8%
Job tenure in the current restaurant		
3 – 6 months	78	13.6%
6 − 9 months	116	20.2%
9 − 12 months	139	24.2%
12 − 15 months	90	15.7%
15 − 18 months	50	8.7%
18 − 21 months	21	3.7%
Longer than 21 months	80	13.9%
Job tenure in the hospitality industry		
Less than 6 months	45	7.8%
6 − 12 months	118	20.6%
12 − 18 months	103	17.9%
18 − 24 months	77	13.4%
24 − 30 months	63	11.0%
30 − 36 months	39	6.8%
Longer than 36 months	129	22.5%
Average customers daily served during weekday		
0 – 25 customers	43	7.5%
25 − 50 customers	151	26.3%

50 − 75 customers	170	29.6%
75 − 100 customers	97	16.9%
100 − 125 customers	44	7.7%
125 − 150 customers	30	5.2%
More than 150 customers	39	6.8%
Average customers daily served during weekend		
0 – 25 customers	30	5.2%
25 − 50 customers	99	17.2%
50 − 75 customers	132	23.0%
75 − 100 customers	122	21.3%
100 − 125 customers	88	15.3%
125 − 150 customers	43	7.5%
More than 150 customers	60	10.5%
Position		
Server	331	57.7%
Host	102	17.8%
Bartender	92	16.0%
Busser	22	3.8%
Others	27	4.7%
Restaurant Type		
Fast food restaurant	147	25.6%
Fast causal restaurant	90	15.7%
Casual dining restaurant	236	41.1%
Fine dining	90	15.7%
Others	11	1.9%
Restaurant affiliation		
Franchised	345	60.1%
Non-Franchised (Independent)	229	39.9%
Employment Status		
Full-time	393	68.5%
Part-time	181	31.5%
Education level		
Less than high school diploma	1	0.2%
High school graduate	128	22.3%
Associate degree	123	21.4%
Bachelor’s degree	272	47.4%
Graduate degree	50	8.7%
Marital Status		
Married	255	44.4%
Single	295	51.4%
Widow	2	0.3%
Divorced	17	3.0%
Prefer not to answer	5	0.9%
Ethnicity		
African American	60	10.5%
Asian	47	8.2%
Caucasian	351	61.1%
Native American	63	11.0%
Hispanic	44	7.7%
Others	9	1.6%

Constructs Validity and Reliability

CFA was performed to examine convergent and discriminant validity. The initial results of CFA showed a weak fit of the model to the data (χ^2 = 1916.490, df = 684, $p < 0.001$, $\chi 2/df$ = 2.802, RMSEA = 0.056, CFI = 0.892, TLI = 0.882, IFI = 0.892). CR was greater than the minimum threshold (0.7), confirming convergent validity of the measurement items (Hair et al., 2010; Hu & Bentler, 1999; Malhotra & Dash, 2011). Although CR alone is enough to confirm convergent validity, AVE is a more conservative measure than CR for confirming convergent validity (Malhotra & Dash, 2011). The AVE value for service recovery performance (0.383) was not satisfied. For discriminant validity, the square root of AVE for each latent factor is greater than its correlation (see Table 4.7; Hair et al., 2010; Hu & Bentler, 1999).

Table 4.7 Composite Reliabilities, Correlations, and Squared Root of AVE

	CR	AVE	EE	SRP	SC	SI
EE	0.933	0.637	0.798 [a]			
SRP	0.751	0.382	-0.032 [b]	0.618		
SC	0.883	0.520	-0.057	0.574***	0.721	
SI	0.876	0.706	0.160	0.557	0.632	0.840

Note: [a] Square root of the AVE is along the diagonal; [b] Correlations are below the diagonal; *** $p < 0.001$; CR = Composite Reliability; AVE = Average Value Extracted; EE = emotional exhaustion; SRP = service recovery performance; SC = support for creativity; SI = service improvisation.

To achieve a better model fit and convergent validity for service recovery performance, two items showing the lowest factor loading were excluded among five items for service recovery performance: SRP1 (0.440) – “Considering all the things I do, I handle dissatisfied customers quite well”; and SRP2 (0.512) – “I don't mind dealing with complaining customers”.

This process is used to obtain a better fit of the proposed model to the data; Hair et al. (2010) stated that a better fit can be achieved by deleting problematic measurement items based on low factor loadings. After this process, the goodness of model fit was satisfied (χ^2 = 1554.878, df = 611, $p < 0.001$, $\chi 2/df$ = 2.545, RMSEA = 0.052, CFI = 0.913, TLI = 0.905, IFI = 0.914). As Table 4.8 shows, AVE for service recovery performance (0.769) was higher than the threshold (0.5), confirming convergent validity (Hair et al., 2010; Hu & Bentler, 1999). The square root of the AVE for each latent factor is greater than its correlation, confirming discriminant validity. Appendix G presents the final CFA model for consequence study in AMOS.

Table 4.8 Composite Reliabilities, Correlations, and Squared Root of AVE

	CR	AVE	EE	SRP	SC	SI
EE	0.933	0.637	0.798 [a]			
SRP	0.769	0.527	-0.047 [b]	0.726		
SC	0.883	0.520	-0.057	0.506***	0.721	
SI	0.876	0.706	0.160	0.455	0.631	0.840

Note: [a] Square root of the AVE is along the diagonal; [b] Correlations are below the diagonal; *** $p < 0.001$; CR = composite reliability; AVE = Average Value Extracted; EE = emotional exhaustion; SRP = service recovery performance; SC = support for creativity; SI = service improvisation.

Table 4.9 Confirmatory Factor Analysis: Items, Loadings, Means, Standard Deviation

Construct and Scale Item	SL	M (SD)
Emotional exhaustion (α = 0.933)		**4.377 (1.737)**
I feel emotionally drained from my work.	0.822	
I feel used up at the end of the workday.	0.798	
I feel fatigued when I get up in the morning and have to face another day on the job.	0.824	
Working with people all day is really a strain for me.	0.782	
I feel burned out from my work.	0.839	
I feel frustrated by my job.	0.818	
I feel I am working too hard on my job.	0.724	
I feel like I am at the end of my rope.	0.770	
Service recovery performance (α = 0.765)		**4.798 (1.599)**
Satisfying complaining customers is a great thrill to me.	0.746	
Complaining customers I have dealt with in the past are among today’s most loyal customers.	0.776	
I don't mind dealing with complaining customers.	0.650	
Support for Creativity (α = 0.882)		**4.917 (1.423)**
My immediate manager discusses with me my work-related ideas in order to improve them.	0.691	
My coworkers other than my immediate manager are always ready to support me if I introduce an unpopular idea or solution at work.	0.685	
My immediate manager support experimentation with new methods and ways of doing things.	0.741	
My immediate manager gives me useful feedback about my ideas concerning the workplace.	0.793	
My coworkers other than my immediate manager give me useful feedback about my ideas concerning the workplace.	0.689	
My immediate manager is always ready to support me if I introduce an unpopular idea or solution at work.	0.725	
My coworkers other than my immediate manager are almost always supportive when I come up with a new idea about my job.	0.719	
Service Improvisation (α = 0.857)		**5.151 (1.384)**
I often have to figure out actions in the moment.	0.724	
I often have to respond in the moment to unexpected problems.	0.856	
I almost always deal with unanticipated events on the spot.	0.692	
I often deviate from standard routines to respond to guests` requests.	0.583	
I often try new approaches to solve guests' problems.	0.826	
I often have to be creative to satisfy customers' needs.	0.754	
I often pull information from many different sources to respond to guests' requests.	0.679	
I am able to make use of all the resources provided by my employer to respond to guests’ requests.	0.657	
I often make use of several other workers' expertise to satisfy guests.	0.680	

Note: All factors loadings were significant at $p < 0.001$. SL = Standardized Loading. M = Mean. SD = Standard Deviation.

Common Method Bias

For more robust results in detecting common method variance, a specific bias factor (i.e., social desirability bias construct) was used to find any shared variance across all the constructs (Podsakoff et al., 2003).

Using the social desirability bias construct, a zero constraints test was performed for both the unconstrained model ($\chi^2 = 927.590$, df = 370) (see Appendix H) and the zero constrained model ($\chi^2 = 1268.303$, df = 397) (see Appendix I). The chi-square test found that the zero constrained model is significant ($\chi^2 = 340.713$, df = 27, $p < 0.001$), confirming common method bias. In addition, an equal bias test was used to compare the unconstrained model ($\chi^2 = 927.590$, df = 370) (see Appendix H) and the equal constrained model ($\chi^2 = 1051.064$, df = 396) (see Appendix J). The significant chi-square test results for the equal constraints model ($\chi^2 = 123.474$, df = 26, $p < 0.001$) shows the bias was unevenly distributed. In such cases, Gaskin (2016) suggests including the social desirability bias construct as a control variable for further causal analyses.

Hypotheses Test (Hierarchical Multiple Regression Analysis)

CFA verified convergent validity and discriminant validity in the previous step. Latent constructs were extracted using data imputation in AMOS. Data imputation creates a new SPSS dataset containing the same latent factors in the CFA model and the same factor weights, applied to the same observed raw scores (Gaskin, 2016; "Obtaining Factor", n.d.). The hierarchical multiple regression was used to test four hypotheses to identify the consequences of service improvisation by including the control variables. The nine control variables are the number of customers served (weekday), the number of customers served (weekend), job tenure in the current restaurant, job tenure in the hospitality industry, time working with the current immediate supervisor, social desirability bias, gender, age, and education.

As Table 4.10 shows, Model 2, which includes the service improvisation variable as an independent variable after controlling the nine variables, was significant (F = 44.685, $p < 0.001$) in predicting service recovery performance (positive aspect of service improvisation). A statistically significant positive relationship was found between service improvisation and service recovery performance ($\beta = 0.296$, $t = 6.720$, $p < 0.001$) after controlling for the nine variables, supporting Hypothesis 7 (Service improvisation will be positively related to service recovery performance).

Table 4.10 Hierarchical Multiple Regression Model for Predicting Service Recovery Performance

		Sum of Squares	df	Mean Square	F	Sig.
Model 1	Regression	216.988	9.000	24.110	41.393	0.000
	Residual	328.511	564.000	0.582		
	Total	545.500	573.000			
Model 2	Regression	241.379	10.000	24.138	44.685	0.000
	Residual	304.121	563.000	0.540		
	Total	545.500	573.000			

	Unstandardized Coefficients		Standardized Coefficients		
Model 1	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	-1.155	0.215		-5.383	0.000
The number of serving customers (Weekday)	0.062	0.027	0.100	2.263	0.024
The number of serving customers (Weekend)	-0.027	0.026	-0.046	-1.041	0.298
Job tenure in the current restaurant	-0.033	0.029	-0.064	-1.162	0.246
Job tenure in the hospitality industry	-0.035	0.021	-0.073	-1.701	0.090
Time working with a current immediate supervisor	0.053	0.027	0.099	1.955	0.051
Social desirability bias	0.537	0.033	0.531	16.059	0.000
Gender					
Age	0.008	0.066	0.004	0.114	0.909
Education	0.010	0.004	0.081	2.331	0.020
Model 2	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	-1.047	0.207		-5.050	0.000
The number of serving customers (Weekday)	0.064	0.026	0.104	2.441	0.015
The number of serving customers (Weekend)	-0.042	0.025	-0.072	-1.697	0.090
Job tenure in the current restaurant	-0.029	0.028	-0.057	-1.066	0.287
Job tenure in the hospitality industry	-0.036	0.020	-0.076	-1.839	0.066
Time working with a current immediate supervisor	0.049	0.026	0.092	1.882	0.060
Social desirability bias	0.333	0.044	0.329	7.505	0.000
Gender	-0.007	0.064	-0.004	-0.113	0.910
Age	0.010	0.004	0.086	2.598	0.010
Education	0.228	0.034	0.219	6.773	0.000
Service improvisation (*H7*)	0.470	0.070	0.296	6.720	0.000

Note: Dependent variable = service recovery performance.

As Table 4.11 shows, Model 2, which includes the service improvisation variable as an independent variable, after controlling for nine variables, was significant ($F = 6.151$, $p < 0.001$) in predicting emotional exhaustion (negative aspect of service improvisation). A statistically significant positive relationship between service improvisation and emotional exhaustion ($\beta = 0.288$, $t = 5.133$, $p < 0.001$) was found after controlling for nine variables, supporting Hypothesis 8 (Service improvisation will be positively related to emotional exhaustion).

Table 4.11 Hierarchical Multiple Regression Model for Predicting Emotional Exhaustion

		Sum of Squares	df	Mean Square	F	Sig.
Model 1	Regression	60.816	9.000	6.757	3.739	0.000
	Residual	1019.270	564.000	1.807		
	Total	1080.086	573.000			
Model 2	Regression	106.385	10.000	10.638	6.151	0.000
	Residual	973.701	563.000	1.729		
	Total	1080.086	573.000			

	Unstandardized Coefficients		**Standardized Coefficients**		
Model 1	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	0.173	0.378		0.458	0.647
The number of serving customers (Weekday)	0.068	0.048	0.078	1.418	0.157
The number of serving customers (Weekend)	-0.011	0.045	-0.013	-0.245	0.806
Job tenure in the current restaurant	-0.069	0.050	-0.095	-1.377	0.169
Job tenure in the hospitality industry	-0.136	0.036	-0.201	-3.760	0.000
Time working with a current immediate supervisor	0.067	0.048	0.088	1.389	0.166
Social desirability bias	0.071	0.059	0.050	1.197	0.232
Gender					
Age	0.264	0.117	0.094	2.256	0.024
Education	0.003	0.007	0.016	0.374	0.708
Model 2	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	0.321	0.371		0.865	0.387
The number of serving customers (Weekday)	0.071	0.047	0.082	1.519	0.129
The number of serving customers (Weekend)	-0.032	0.045	-0.039	-0.723	0.470
Job tenure in the current restaurant	-0.064	0.049	-0.088	-1.300	0.194
Job tenure in the hospitality industry	-0.138	0.035	-0.204	-3.899	0.000
Time working with a current immediate supervisor	0.061	0.047	0.081	1.306	0.192
Social desirability bias	-0.209	0.079	-0.147	-2.636	0.009
Gender	0.244	0.114	0.087	2.128	0.034
Age	0.004	0.007	0.022	0.519	0.604
Education	-0.085	0.060	-0.058	-1.404	0.161
Service improvisation (*H8*)	0.643	0.125	0.288	5.133	0.000

Note: Dependent variable = emotional exhaustion.

As Table 4.12 shows, Model 2, which includes the emotional exhaustion variable as an independent variable, after controlling for nine variables, was significant ($F = 38.698$, $p < 0.001$) in predicting service recovery performance. A statistically significant negative relationship between emotional exhaustion and service recovery performance ($\beta = -0.101$, $t = -3.016$, $p < 0.01$) was found after controlling for nine variables, supporting Hypothesis 9 (Emotional exhaustion will be negatively related to service recovery performance).

Table 4.12 Hierarchical Multiple Regression Model for Predicting Service Recovery Performance

		Sum of Squares	df	Mean Square	F	Sig.
Model 1	Regression	216.988	9.000	24.110	41.393	0.000
	Residual	328.511	564.000	0.582		
	Total	545.500	573.000			
Model 2	Regression	222.212	10.000	22.221	38.698	0.000
	Residual	323.288	563.000	0.574		

	Unstandardized Coefficients		Standardized Coefficients		
Model 1	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	-1.155	0.215		-5.383	0.000
The number of serving customers (Weekday)	0.062	0.027	0.100	2.263	0.024
The number of serving customers (Weekend)	-0.027	0.026	-0.046	-1.041	0.298
Job tenure in the current restaurant	-0.033	0.029	-0.064	-1.162	0.246
Job tenure in the hospitality industry	-0.035	0.021	-0.073	-1.701	0.090
Time working with a current immediate supervisor	0.053	0.027	0.099	1.955	0.051
Social desirability bias	0.537	0.033	0.531	16.059	0.000
Gender					
Age	0.008	0.066	0.004	0.114	0.909
Education	0.010	0.004	0.081	2.331	0.020
Model 2	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	-1.143	0.213		-5.362	0.000
The number of serving customers (Weekday)	0.067	0.027	0.108	2.455	0.014
The number of serving customers (Weekend)	-0.028	0.026	-0.047	-1.079	0.281
Job tenure in the current restaurant	-0.038	0.028	-0.074	-1.342	0.180
Job tenure in the hospitality industry	-0.045	0.021	-0.093	-2.163	0.031
Time working with a current immediate supervisor	0.058	0.027	0.108	2.142	0.033
Social desirability bias	0.542	0.033	0.536	16.306	0.000
Gender	0.026	0.066	0.013	0.400	0.689
Age	0.010	0.004	0.082	2.395	0.017
Education	0.240	0.035	0.230	6.901	0.000
Emotional exhaustion (*H9*)	-0.072	0.024	-0.101	-3.016	0.003

Note: Dependent variable = service recovery performance.

Moderating Effect of Support for Creativity

To test the moderation effect of support for creativity (SC), z-score values for SC and service improvisation (SI) were created to minimize multicollinearity issues when these two variables are multiplied to have an interaction term. As Table 4.13 shows, Model 4 with an interaction term (SI x SC) after nine control variables were included, showed both the independent variable (SI) and moderating variable (SC) were significant ($F = 8.419$, $p < 0.001$) in predicting emotional exhaustion. The interaction term (SI x SC) was statistically significant ($\beta = -0.121$, $t = -2.955$, $p < 0.01$), which with the significant F changes in model 4 ($F = 8.735$, $p < 0.01$), supported Hypothesis 10 (The relationship between service improvisation and emotional exhaustion will be moderated by support for creativity, with the relationship weakening among restaurant frontline employees who have high support for creativity).

Table 4.13 Hierarchical Multiple Regression Model for Testing Moderating Effect of Support for Creativity

		Sum of Squares	df	Mean Square	F	Sig.
Model 1	Regression	60.816	9.000	6.757	3.739	0.000
	Residual	1019.270	564.000	1.807		
	Total	1080.086	573.000			
Model 2	Regression	112.850	10.000	11.285	6.569	0.000
	Residual	967.236	563.000	1.718		
	Total	1080.086	573.000			
Model 3	Regression	150.577	11.000	13.689	8.277	0.000
	Residual	929.509	562.000	1.654		
	Total	1080.086	573.000			
Model 4	Regression	164.828	12.000	13.736	8.419	0.000
	Residual	915.258	561.000	1.631		
	Total	1080.086	573.000			

					Change Statistics				
	R	**R^2**	**Adjusted R^2**	**Std. Error of the Estimate**	**R^2 Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
Model 1	0.237	0.056	0.041	1.344	0.056	3.739	9.000	564.000	0.000
Model 2	0.323	0.104	0.089	1.311	0.048	30.287	1.000	563.000	0.000
Model 3	0.373	0.139	0.123	1.286	0.035	22.811	1.000	562.000	0.000
Model 4	0.391	0.153	0.134	1.277	0.013	8.735	1.000	561.000	0.003

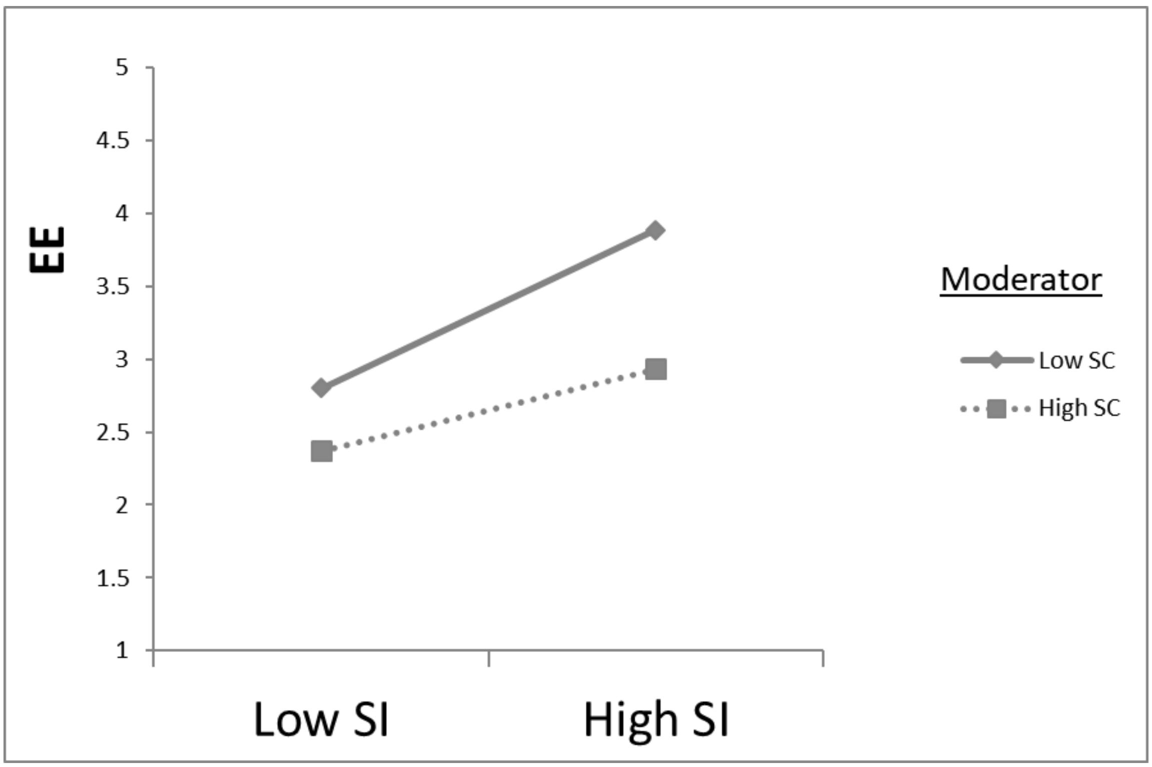
	Unstandardized Coefficients		**Standardized Coefficients**		
Model 1	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	0.173	0.378		0.458	0.647
The number of serving customers (Weekday)	0.068	0.048	0.078	1.418	0.157
The number of serving customers (Weekend)	-0.011	0.045	-0.013	-0.245	0.806
Job tenure in the current restaurant	-0.069	0.050	-0.095	-1.377	0.169
Job tenure in the hospitality industry	-0.136	0.036	-0.201	-3.760	0.000
Time working with a current immediate supervisor	0.067	0.048	0.088	1.389	0.166
Social desirability bias	0.071	0.059	0.050	1.197	0.232
Gender					
Age	0.264	0.117	0.094	2.256	0.024
Education	0.003	0.007	0.016	0.374	0.708
Model 2	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	0.339	0.370		0.916	0.360
The number of serving customers (Weekday)	0.076	0.047	0.087	1.624	0.105
The number of serving customers (Weekend)	-0.037	0.044	-0.045	-0.843	0.399
Job tenure in the current restaurant	-0.066	0.049	-0.091	-1.349	0.178

Job tenure in the hospitality industry	-0.153	0.035	-0.226	-4.315	0.000
Time working with a current immediate supervisor	0.068	0.047	0.091	1.462	0.144
Social desirability bias	-0.155	0.071	-0.109	-2.191	0.029
Gender	0.234	0.114	0.084	2.051	0.041
Age	0.003	0.007	0.019	0.462	0.644
Education	-0.067	0.060	-0.046	-1.121	0.263
Service improvisation (Independent)	0.377	0.069	0.275	5.503	0.000
Model 3	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	0.266	0.363		0.734	0.463
The number of serving customers (Weekday)	0.071	0.046	0.082	1.552	0.121
The number of serving customers (Weekend)	-0.034	0.044	-0.041	-0.782	0.434
Job tenure in the current restaurant	-0.067	0.048	-0.092	-1.391	0.165
Job tenure in the hospitality industry	-0.179	0.035	-0.265	-5.099	0.000
Time working with a current immediate supervisor	0.090	0.046	0.119	1.956	0.051
Social desirability bias	0.030	0.079	0.021	0.383	0.702
Gender	0.232	0.112	0.083	2.074	0.039
Age	0.001	0.007	0.007	0.180	0.857
Education	-0.013	0.060	-0.009	-0.216	0.829
Service improvisation (Independent)					
Support for creativity (Moderator)	1.098	0.135	0.491	8.124	0.000
Model 4	***b***	***SE B***	***β***	**t**	**Sig.**
Constant	0.251	0.361		0.697	0.486
The number of serving customers (Weekday)	0.080	0.046	0.092	1.754	0.080
The number of serving customers (Weekend)	-0.037	0.043	-0.045	-0.851	0.395
Job tenure in the current restaurant	-0.071	0.048	-0.098	-1.491	0.137
Job tenure in the hospitality industry	-0.185	0.035	-0.273	-5.285	0.000
Time working with a current immediate supervisor	0.099	0.046	0.132	2.168	0.031
Social desirability bias	0.016	0.079	0.011	0.201	0.841
Gender	0.258	0.112	0.093	2.316	0.021
Age	0.003	0.007	0.019	0.456	0.649
Education	-0.013	0.060	-0.009	-0.214	0.831
Service improvisation (Independent)	0.413	0.070	0.301	5.909	0.000
Support for creativity (Moderator)	-0.347	0.073	-0.254	-4.736	0.000
Service improvisation X support for creativity (Interaction term) (*H10*)	-0.130	0.044	-0.121	-2.955	0.003

Note: Dependent variable = emotional exhaustion.

Figure 4.4 depicts the moderating effect of support for creativity between service improvisation and emotional exhaustion. Specifically, the positive relationship between service improvisation and emotional exhaustion was significantly lower for a group with high support for creativity.

Figure 4.4 Moderating Effect of Support for Creativity



Note: SI = service improvisation; EE = emotional exhaustion; SC = support for creativity

Chapter 5 - Discussion

This study sought to determine the antecedents and consequences of service improvisation. Specifically, three antecedents were found in organizational behavior: leadership style (i.e., servant leadership), social exchange quality (i.e., team-member exchange), and internal locus of control. Further, psychological empowerment was identified as a mediator, explaining how and why the three proposed antecedents affect service improvisation.

Two consequences of service improvisation were also identified, both positive (i.e., service recovery performance) and negative (i.e., emotional exhaustion), confirming the double-edged sword effect of service improvisation. Moreover, coworker support for creativity was found to minimize emotional exhaustion from service improvisation. Hierarchical multiple regression analysis tested all the proposed hypotheses after including control variables. In this chapter, the results of the current study are interpreted and compared with prior studies.

H1. Servant leadership is positively related to service improvisation.

A significant positive relationship was found between servant leadership and service improvisation ($\beta = 0.106$, $t = 3.798$, $p < 0.001$), supporting Hypothesis 1. In other words, restaurant frontline employees are more likely to improvise in delivering services at work if their immediate supervisor has high servant leadership.

Although, to the best of my knowledge, no empirical study has tested the relationship between servant leadership and service improvisation, the result does align well with Cunha et al. (2003) who stressed the importance of servant leadership in promoting improvisation. This is because servant leaders create an experimental culture and minimal structure, which are key to service improvisation (Cunha et al., 2003; Secchi, 2012).

In addition, servant leaders encourage subordinates to make self-directed decisions and work innovatively (Konczak et al., 2000), boosting new ideas (Bilsen, 2010; Cunha et al., 2003) and enhancing trust among subordinates (Block, 1993; Van Dierendonck, 2011). These characteristics of servant leadership encourage subordinates to improvise in providing service (Crossan et al., 1996).

Servant leaders support emotions among subordinates who feel anxiety and stress if they use unfamiliar ways to respond to emerging situations instead of using regular routines (Barrett & Peplowski, 1998; Cunha et al., 1999; Hatch, 1999). Servant leaders value the process of work and thus, are open to failures from trying new ideas (Bilsen, 2010; Cunha et al., 2003), which may foster service improvisation among subordinates (Cunha et al., 1999).

H2. Team-member exchange is positively related to service improvisation.

TMX positively predicted service improvisation ($\beta = 0.635$, $t = 19.431$, $p < 0.001$), supporting Hypothesis 2, indicating that restaurant frontline employees who can rely on high TMX are more likely to improvise at work.

Although empirical research testing the direct link between TMX and service improvisation is limited, TMX does relate positively to outcomes like work-related feedback and sharing new ideas (Liu, Keller, & Shih, 2011), helping other team members (Kamdar & Van Dyne, 2007), psychological empowerment (Schermuly & Meyer, 2016), work engagement (Liao et al., 2013), and organizational citizenship behavior (Farmer et al., 2015). Strong teamwork encourages improvisation because team members trust one another highly and work cohesively (Akgün & Lynn, 2002). In line with this, the quality of TMX represents trust and respect among team members (Blau, 1964; Seers et al., 1995), which have been proposed as key factors encouraging service improvisation (Crossan et al., 1996; Vera & Crossan, 2004). In fact, team behavioral integration and team cohesion are positively associated with improvisation (Magni et al., 2009).

H3. Internal locus of control is positively related to service improvisation.

The findings showed that internal locus of control is positively related to service improvisation ($\beta = 0.184$, $t = 5.168$, $p < 0.001$), supporting Hypothesis 3. Thus, restaurant frontline employees who have a high internal locus of control are likely to use service improvisation at work.

Although no empirical research has examined the relationship between internal locus of control and service improvisation in the previous literature, a meta-study did find that internal locus of control is positively associated with work outcomes like positive tasks, social experiences, and more job motivation (Ng et al., 2006). Furthermore, individuals with internal locus of control have more innovative ideas (Burroughs & Glen Mick, 2004) and creative responses (DuCette et al., 1972), which are necessary for service improvisation.

Service improvisation entails some risks because individuals must depart from routines to cope with unexpected situations (Cunha et al., 1999). Individuals with a high internal locus of control may be more likely to engage in service improvisation because they can manage challenging tasks. Lee (2015) argued that hotel employees with internal locus of control are optimistic about challenging tasks. In addition, an individual with an internal locus of control is more optimistic (Caliendo et al., 2015), feels less anxiety (Shriberg, 1974), and is more open to risks (Das & Teng, 2001) in demanding siutations than individuals with an external locus of control.

H4. Psychological empowerment mediates the relationship between servant leadership and service improvisation.

The results of the mediation analysis indicated that psychological empowerment significantly mediates the relationships between servant leadership and service improvisation (β = 0.802), CI [0.691, 0.912]. Therefore, Hypothesis 4 was supported. In other words, servant leaders are likely to foster psychological empowerment among their subordinates, which in turn, increases service improvisation at work.

Although no empirical research has examined how psychological empowerment mediates between servant leadership and service improvisation in the previous literature, Vredenburg (2017) proposed psychological empowerment as a mediator between autonomy and improvisation. In other words, autonomy as a structural aspect motivates employees to use allowed controls and choices in making decisions that, in turn, boost their improvisation (Vredenburg, 2017).

Two empirical studies found a significant positive relationship between servant leadership and psychological empowerment (Liden et al., 2000; Newman et al., 2017). In addition, Secchi (2012) found a significant link between psychological empowerment and service improvisation.

H5. Psychological empowerment mediates the relationship between team-member exchange and service improvisation.

The results of mediation analysis showed that psychological empowerment significantly mediates the relationships between TMX and service improvisation (β = 0.156, CI [0.108, 0.208]. Therefore, Hypothesis 5 was supported. In other words, a team with high TMX is likely to enhance psychological empowerment among team members, which in turn, fosters service improvisation at work.

Although no empirical research has tested how psychological empowerment mediates between TMX and service improvisation in the previous literature, a team with high TMX shows strong mutual trust and respect among team members, which was a crucial determinant of psychological empowerment (Schermuly & Meyer, 2016; Spreitzer, 2008) and was conceptually proposed as a key factor in encouraging service improvisation (Crossan et al., 1996; Vera & Crossan, 2004).

Recently, a cross-level study with two mediators (individual risk aversion attitude and individual proactive attitude) found a mediating effect between team innovative climate and individual improvisation (Magni et al., 2018).

H6. Psychological empowerment mediates the relationship between internal locus of control and service improvisation.

The results of mediation analysis showed that psychological empowerment significantly mediates the relationships between internal locus of control and service improvisation (β = 0.216, CI [0.137, 0.298]. Therefore, Hypothesis 6 was supported. That is, internal locus of control is likely to foster psychological empowerment, which in turn, increases service improvisation at work.

Although no empirical research has investigated how psychological empowerment mediates between internal locus of control and service improvisation in the previous literature, one empirical study did find a significant positive relationship between internal locus of control and psychological empowerment, using data collected from hotel frontline employees (Jha &

Nair, 2008). Their results differed from Spreitzer (1995) and Wang et al. (2013), who did not find a significant relationship between locus of control and psychological empowerment.

H7. Service improvisation is positively related to service recovery performance.

The results indicated that a significant positive relationship occurred between service improvisation and service recovery performance ($\beta = 0.296$, $t = 6.720$, $p < 0.001$), supporting Hypothesis 7. This result suggests that restaurant frontline employees with high service improvisation enhance their service recovery performance. That is, the more restaurant frontline employees improvise, the better they recover from service failures. Although, empirical research has not been published examining the direct link between service improvisation and service recovery performance, some scholars suggested in conceptual papers that improvisation is the key to service employees recovering customer satisfaction from service failures as they generate creative solutions using immediate responses (Cunha et al., 2009; John et al., 2006).

H8. Service improvisation is positively related to emotional exhaustion.

The results indicated that a significant positive relationship occurred between service improvisation and emotional exhaustion ($\beta = 0.288$, $t = 5.133$, $p < 0.001$), supporting Hypothesis 8. This result indicates that restaurant frontline employees with high service improvisation also have increased emotional exhaustion. This result suggests that the more restaurant frontline employees improvise, the more emotionally exhausted they feel.

Despite this possible negative outcome of service improvisation along with psychological burnout and stress (Hatch, 199), and anxiety (Cunha et al., 1999), no empirical research has considered the direct link between service improvisation and emotional exhaustion.

H9. Emotional exhaustion is negatively related to service recovery performance.

Emotional exhaustion was negatively associated with service recovery performance (β = -0.101, t = -3.016, p < 0.01), supporting Hypothesis 9. This result means that frontline restaurant employees with high emotional exhaustion have weaker service recovery performance. This result shows that as restaurant frontline employees feel more emotionally exhausted, they perform less well in recovering service failures.

The finding is well aligned with previous studies. For example, Choi et al. (2014) found a significant negative relationship between emotional exhaustion and service recovery performance using data collected from frontline employees working at tourist agencies, hotels, and restaurants in Seoul, South Korea. Similarly, Essawy (2016) found a negative relationship between emotional exhaustion and service recovery performance, using data collected from frontline employees working at quick service restaurants in Cairo, Egypt.

H10: The relationship between service improvisation and emotional exhaustion is moderated by support for creativity, with the relationship weakening among restaurant frontline employees who have high support for creativity.

A significant interaction effect of support for creativity on the relationship between service improvisation and emotional exhaustion was found (β = -0.121, t = -2.955, p < 0.001), supporting Hypothesis 10. This result shows that support for creativity dampens the positive relationship between service improvisation and emotional exhaustion. That is, this result shows that restaurant frontline employees with highly supportive work environments for creativity feel less emotionally exhausted than otherwise.

Although no empirical research has examined how support for creativity moderates the relationship between service improvisation and emotional exhaustion in the previous literature, Hmieleski and Corbett (2008) found that entrepreneur self-efficacy moderates the relationship between improvisation and new venture performance, as well as the relationship between improvisation and work satisfaction. Specifically, high self-efficacy enhances the relationship between improvisation and new venture performance while it reduces the relationship between improvisation and work satisfaction.

Chapter 6 - Conclusions

In this chapter, major findings are presented based on the results of hypotheses tests. Theoretical and practical implications are discussed along with the recommendations for future research.

Major Findings

Direct relationships were confirmed between each of the three antecedents, servant leadership (β = 0.106, t = 3.798, p < 0.001), TMX (β = 0.635, t = 19.431, p < 0.001), and internal locus of control (β = 0.184, t = 5.168, p < 0.001), and service improvisation. Psychological empowerment was identified as a partial mediator between servant leadership and service improvisation (β = 0.802, CI [0.691, 0.912]), TMX and service improvisation (β = 0.156, CI [0.108, 0.208]), and internal locus of control and service improvisation (β = 0.216, CI [0.137, 0.298]). As for the consequences of service improvisation, although service improvisation improved service recovery performance (β = 0.296, t = 6.720, p < 0.001), the level of emotional exhaustion (β = 0.288, t = 5.133, p < 0.001) also increased concurrently, which, in turn, decreases service recovery performance (β = -0.101, t = -3.016, p < 0.01). Support for creativity moderates the link between service improvisation and emotional exhaustion (β = -0.121, t = -2.955, p < 0.001). The contributions of the study to theory and practice are discussed here along with recommendations for future research.

Theoretical Implications

This study adds to previous studies by examining the antecedents of service improvisation in organizational behavior. Although previous studies have enumerated antecedents of improvisation (e.g., Kamoche et al., 2003; Magni et al., 2018; Secchi, 2012), the current study advances service improvisation literature by providing more in-depth discussion of the determinants of service improvisation by revealing three keys to organizational behaviors: leadership, social exchange, and individual employee characteristics. Specifically, although Secchi (2012) found experimental culture as an antecedent of service improvisation, the construct Secchi (2012) used focused only on measuring hotel organization incentive systems and performance assessments. The results of the current study, however, expand our understanding of what affects service improvisation by uncovering a holistic view of a specific organizational aspect (i.e., leadership, social exchange, and individual employee characteristics). This is important in organizational behavior research because individual performance can be affected by various factors from multiple layers of organizations (Costa et al., 2013).

From a leadership perspective, this study provides empirical evidence of a positive link between servant leadership and service improvisation. Leadership is a key factor determining restaurant success or failure (Everett & Watson, 1998; Parsa, Self, Njite, & King, 2005; Valdiserri & Wilson, 2010). Prior scholars have suggested that leaders should adapt and adjust their leadership styles according to the situation (Northouse, 2015; Ogbeide, 2011, 2008). In high uncertainty situations, managers who encourage follower self-efficacy provide meaning to the change, and encouraging personal development may be more effective in a change process (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). Accordingly, Sousa and Van Dierendonck (2014) noted that servant leadership might be more suitable if change affects personal uncertainty because servant leaders may minimize follower anxiety caused by uncertainty. Restaurant frontline employees who are often confronted with customer-induced variability may improvise more under servant leader supervision. Similarly, the current study found that frontline employees in restaurants consider the servant leadership style of their immediate supervisor as a key job resource for service improvisation in difficult situations, helping them act immediately using available social or personal resources and creative solutions. Prior scholars have linked servant leadership and service improvisation. Cunha et al. (1999) argued that servant leaders who encourage an experimental culture are positively related to follower improvisation because servant leaders value the “How” (i.e., the process of work) rather than the “What” (i.e., the outcomes of work), which facilitates innovative ideas produced by followers (Bilsen, 2010; Cunha et al., 2003). Servant leaders control their followers indirectly, which may help followers improvise by allowing them more control over their decision-making processes (Crossan, 1998; Cunha et al., 1999; Cunha et al., 2003; Liden et al., 2008); servant leaders also identify emotional and affective states of followers and help them reduce anxiety, further encouraging improvisation (Barrett & Peplowski, 1998; Cunha et al., 1999; Hatch, 1999). Although the literature does show a promising possible link between servant leadership and service improvisation, quantitative evidence of that link is scarce. Therefore, the findings in this study extend the leadership and service improvisation literature by revealing a significant link between servant leadership and service improvisation in the restaurant context.

From a social exchange perspective, this study found a positive link between team-member exchange and service improvisation. In other words, frontline employees in restaurants consider TMX quality as a crucial job resource that encourages service improvisation to satisfy customer needs that are often far from routine. High TMX quality enhances strong mutual trust and support among team members, which is a key to encouraging service improvisation (Crossan et al., 1996; Hoegl & Wagner, 2005; Scott & Bruce, 1994). This stong bond among team members with mutual trust and respect is critical because improvisation requires effective information gathering and sharing (Akgün & Lynn, 2002). Vera and Crossan (2005) called for studies of how team attributes affect improvisation, and this study, using TMX as an antecedent of service improvisation, adds to the literature by discovering empirical evidence revealing this significant link.

From the individual employee characteristic perspective, the results of this study show internal locus of control and service improvisation are positively related. That is, frontline employees in restaurants find that internal locus of control is a useful personal resource that encourages them to take risks proactively in improvising solutions to unfamiliar tasks. Individuals with internal locus of control may improvise more because internal locus of control is positively associated with self-efficacy, coping strategies, job performance (Joo et al., 2013; Judge & Bono, 2001), innovative ideas (Burroughs & Glen Mick, 2004), creative responses (DuCette et al., 1972), and information processing (Gilmor, 1978). Galvin et al. (2018) suggested that organizational researchers should consider the domain-specific locus of control variable (e.g., work locus of control), and the results of this study provide empirical evidence lacking in the hospitality literature and reveal a significant link between internal locus of control and service improvisation in the restaurant context. Furthermore, this finding effectively responds to a call to examine the effect of individual variables on improvisation by revealing a significant link between internal locus of control and service improvisation (Nisula & Kianto, 2016). Although another recent study found two individual factors (proactive attitudes, risk aversion) affected improvisation (Magni et al., 2018), empirical evidence remains limited. Therefore, this study's findings contribute to service improvisation literature by revealing that locus of control is one individual factor in service improvisation in restaurant service.

Second, the current study incorporates the antecedents of service improvisation framework into the Job-Demand and Resource model (Bakker & Demerouti, 2007; Demerouti et al., 2001). The results show psychological empowerment performing as a mediator, providing empirical evidence and broadening our understanding of service improvisation by showing why these three antecedents (servant leadership, TMX, and internal locus of control) enhance service improvisation, thus building on the motivational process of Job-Demand and Resource model. In a previous study, Secchi (2012) found that psychological empowerment mediates the relationship between experiential service design strategy and service improvisation. Experiential service design strategy includes five sub-dimensions as a second order factor: availability of resources, transparency, human capital management, information exchange activities, and customer-oriented incentives (Secchi, 2012). While Secchi (2012) investigated organizational factors determining service improvisation by focusing on one holistic construct (experiential service design strategy) including these five sub-dimensions, the current study extends existing research to more specifically demonstrate that servant leadership, TMX, and internal locus of control are the key resources intrinsic to encouraging service improvisation and drawing on the Job-Demand and Resource model because those three antecedents may fulfill frontline employee basic human needs (Deci & Ryan, 1985), including autonomy (Decharms, 1968), competence (White, 1959), and relatedness (Baumeister & Leary, 1995). These may, in turn, motivate employees to go the extra mile at work. In addition, Spreitzer (1995) noted that psychological empowerment creates a work environment where team members feel meaning in what they do at work, their competence is improved, they are allowed more control to resolve unexpected issues immediately, and their coworkers are supportive. In a similar vein, Vredenburg (2017) proposed that psychological empowerment may be the crucial underlying mechanism between autonomy and improvisation.

For example, employees who feel more autonomy at work are more likely to improvise in response to unexpected customer issues because they have more freedom to make their own choices. Unlike previous studies (e.g., Magni et al., 2018, Secchi 2012, Vredenburg 2017), in building on the Job-Demand and Recourse model, the current study sheds new light on how job resources (servant leadership, TMX) and personal resources (internal locus of control) motivate frontline employees to improvise at work. This quantitative approach uncovered the underlying mechanisms in response to calls to research how a team influences improvisation (Kamoche et al., 2003, Magni et al., 2009; Magni et al., 2018).

Third, the results of this study show a positive relationship between service improvisation and service recovery performance. Although no empirical research has examined the direct link between service improvisation and service recovery performance, some scholars have suggested that improvisation allows service employees to act immediately in response to service failure with creative solutions, which can be a crucial key for service recovery (Cunha et al., 2009; John et al., 2006). Thus, the results of this study contribute to the hospitality literature by providing empirical evidence of the direct link between service improvisation and service recovery performance. In addition, these results uncovered the positive association between service improvisation and emotional exhaustion. Some literature has addressed the negative consequences of service improvisation (Aram & Walochik, 1996; Giustiniano, Cunha, & Clegg, 2016; Hadida, Tarvainen, & Rose, 2015; Hatch, 1999; Secchi, 2012); however, understanding how service improvisation is related to negative consequences is still limited. Therefore, the results showing this link between service improvisation and emotional exhaustion contributes to the hospitality literature by adding empirical evidence of the negative aspect of service improvisation. Although "improvisation is not inherently good or bad" (Hmieleski & Corbett, 2008; Vera & Crossan, 2004, 2005), these results confirm that service improvisation is a double-edged sword, thus contributing further to the hospitality literature. Unlike previous studies that focused on either the positive or the negative effects of service improvisation, the current study integrates the double-edged sword effect in the restaurant context. Prior scholars have found that innovation effectiveness (Kamoche & Cunha, 2001), sales growth (Hmieleski & Corbett, 2008), customer satisfaction (Secchi et al., 2016), and team innovation (Vera & Crossan, 2005) were positive outcomes of service improvisation. However, Hmieleski and Corbett (2008) found improvisation had a negative effect on entrepreneur job satisfaction. In line with this, some scholars have argued that improvisation may lead to increased anxiety (Chunha et al., 1999), emotional exhaustion, and stress (Hatch, 1999). Therefore, these results not only address the mixed findings in the current service improvisation literature but also highlight a new viewpoint that better explains the outcomes of service improvisation in restaurants.

Finally, the current study found that support for creativity moderated the relationship between service improvisation and emotional exhaustion, supporting the Conservation of Resources theory (Hobfoll, 1989), responding to recent calls for research into any moderating effects on the link between service improvisation and negative work outcomes (Magni et al., 2018). No empirical studies have examined support for creativity as a moderator between service improvisation and emotional exhaustion. However, Hmieleski and Corbett (2008) did find that entrepreneur self-efficacy, as a moderator, strengthens the relationship between improvisation and new venture performance while it also dampens the relationship between improvisation and work satisfaction. Although Hmieleski and Corbett (2008) found that improvisation had a possible negative outcome on work satisfaction for the group with high self-efficacy, no studies have investigated how to minimize this negative aspect. Therefore, finding that support for creativity had a moderating effect in the relationship provides empirical evidence of minimizing the negative outcomes (e.g., emotional exhaustion) of service improvisation. Moreover, based on the Conservation of Resources theory, service improvisation in unclear situations requires investing job resources (e.g., time, energy) in tasks where favorable outcomes are uncertain; thus, employees who acquire and maintain team member support for creativity to cope with uncertainty may suffer increased anxiety and stress. Thus, frontline employees with high support for creativity (i.e., job resource) will be less likely to experience emotional exhaustion while they improvise than frontline employees without that support.

Practical Implications

The results of the antecedent study show how hospitality organizations can improve service improvisation among employees. The results highlight the positive effects of servant leadership, social exchange quality or TMX, internal locus of control, and psychological empowerment in encouraging frontline employees in restaurants to improvise. Restaurant managers should consider their organization as they develop a service design that will take advantage of employees who produce novel ideas in the current, highly competitive restaurant market.

Specifically, restaurant managers should understand that servant leadership is an important resource in service improvisation. A candidate for restaurant manager who has servant leadership skills can encourage service improvisation among employees. Therefore, restaurants should recruit managers who show the characteristics of servant leadership. Specifically, restaurants should seek out candidates who are highly agreeable (Hunter et al., 2013) and low on extraversion (Flynn, Smither, & Walker, 2016), two antecedents of servant leadership in previous empirical studies. In addition, identifying with the organization is a significant determinant of servant leadership (Peterson, Galvin, & Lange, 2012). Therefore, restaurants should provide managers with a communication channel that allows their voices to be heard and respond spontaneously (Smidts, Pruyn, & Van Riel, 2001).

In addition, restaurants should develop training programs that encourage servant leadership. Prior scholars have found that servant leaders motivate followers in self-directed decisions and innovations (Konczak et al., 2000), they tolerate failures arising from trying new ideas (Bilsen, 2010; Cunha et al., 2003), and they provide emotional support to followers who feel anxiety and stress during unfamiliar tasks (Barrett & Peplowski, 1998; Cunha et al., 1999; Hatch, 1999), all of which may encourage service improvisation among followers (Cunha et al., 1999). Therefore, training programs should encourage these characteristics of servant leadership because they are significantly associated with service improvisation.

Restaurant managers should also recognize that TMX is a crucial resource fostering service improvisation. Therefore, restaurant managers should use informal social events or formal pre/post shift meetings to share work-related updates, customer relationship advice, and customer service guidelines. These social gatherings promote team member friendships, socialization, positive affect (Harter, Schmidt, & Keyes, 2003). In addition, regular formal meetings should be incorporated with a short training session called “yes, and …”. The “yes, and …” training requires one person to listen carefully to what the other person says, accept what the other person says, and then build upon it to come up with more creative ideas or stories (Hartigan, 2013). This not only promotes interactions among team members but also develops improvisation skills. Rather than “yes, but…”, which does not produce any additional ideas, “yes, and …” training allows individuals to realize how difficult it is to accept what other persons have said and then build on it (Hartigan, 2013). Training in improvisation is necessary.

Restaurant managers should also recognize that internal locus of control is an important personality attribute that allows service improvisation among frontline workers. In hiring frontline employees, restaurant managers should prepare behavioral interview questions that will help determine if job candidates have internal locus of control. For example, the questionnaire to measure internal locus of control developed by Spector (1988) can be used to screen out candidates based on objective scores. Then, managers can ask specific questions where candidates describe their willingness to take risks, remain optimistic in demanding situations, and show less anxiety, all characteristics of internal locus of control (Caliendo et al., 2015; Das & Teng, 2001; Shriberg, 1974).

The results of the consequence study show both positive and negative outcomes in connection with service improvisation. Hospitality organizations can manage employee service improvisation while minimizing negative outcomes. In the current study, service improvisation not only can enhance employee service recovery performance but also increase emotional exhaustion. Thus, restaurant managers should be cautious in managing their frontline employees, especially those who must practice service improvisation, which triggers emotional exhaustion. Restaurant managers should create a supportive environment where creative ideas can be freely shared and encouraged by supervisors and coworkers, so negative effects like emotional exhaustion from improvisation can be reduced.

For example, creative ideas from one employee should not be neglected even if the ideas may not lead to resolving issues immediately. If a member comes up with new ideas for a solution to unexpected customer issues, other team members should provide feedback on the ideas that add additional value to his/her original ideas. Doing so may decrease emotional exhaustion through teamwork.

While hiring frontline workers, management may need to pay close attention to which applicants have enough confidence to resolve service failures creatively, particularly when prompt action is required using whatever resources are at hand. Also, training to enhance service improvisation should be considered because "the capacity, ability, and confidence to improvise is a competence that can be perfected with training and preparation" (Cunha et al., 2009, p. 664).

Recommendations for Future Research

While the findings of this study supported the hypothesis that psychological empowerment mediates the relationship between each of three antecedents (servant leadership, TMX, and internal locus of control) and service improvisation, future researchers should also focus on a multi-level analysis to explore the mechanism underlying the relationship. For example, servant leadership and TMX should be considered group-level constructs that affect the individual level constructs, psychological empowerment and service improvisation because there are interacting levels within organizations. The interacting levels can be individuals, teams, departments, or corporate levels, and these levels depend each other (Costa et al., 2013). This multi-level approach is important to understanding real-world phenomena (Kozlowski & Klein, 2000). Researchers should discover better explanations of the service improvisation phenomenon within the organization as they investigate organizational behavior (Hackman, 2003; Hofmann, 1997; Magni, 2009).

Although the statistical results of the current study revealed no significant relationship between either type of restaurant and restaurant affiliation and service improvisation, previous studies have found that both type of hotel and affiliation influence service improvisation (Secchi, 2012; Secchi et al., 2016). For example, the effect of service improvisation on hotel guest satisfaction was higher for lower-tier, 1, 2, and 3 star hotels than higher-tier, 4 and 5 star hotels (Secchi et al., 2016). This may be due to pre-planned scripts for higher tier hotels that are good enough in delivering service; thus, improvisation does not add incremental value to guest satisfaction (Voss et al., 2008, Secchi, 2012). Similarly, it is plausible that different effects of service improvisation depend on type of restaurant. Therefore, type of restaurant (i.e., fast food, fast casual, casual dining, or fine dining) and/or affiliation (i.e., franchise, non-franchise) should be examined along with outcome variables like restaurant revenue, tipping, and customer satisfaction in a different set of data.

Although the setting for the current study was appropriate for research on service improvisation, other studies in other hospitality industries should be used to confirm the findings of the current study, focusing on frontline employees who are critical in satisfying customers as a boundary spanner. Secchi et al. (2016) stressed that research examining service improvisation within the hospitality industry should extend our understanding of the effects of service improvisation in different types of service operations. Thus, domain specific investigation should also be implemented to uncover more detailed effects of service improvisation by expanding into other hospitality industries (event planning, transportation, cruise line, theme parks, tourism industry, or others) where service organization success is largely affected by frontline employees.

Diary studies on service improvisation are recommended. Frequencies of frontline employee improvisation to recover customer service from service failure may vary from day to day; individuals cannot maintain the same mood all the time and may not even be able to produce consistent job performance. Daily studies capture such fluctuating data, that is, the short-term dynamics of work experience (Ohly, Sonnentag, Niessen, & Zapf, 2010). Therefore, daily measurement of service improvisation may be a more precise reflection of service improvisation than measuring service improvisation at a single point in time.

Although the findings of this study provide significant statistical associations among proposed variables, a longitudinal study of service improvisation is also recommended to detect causal relationships of service improvisation with other possible antecedents or consequences.

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Appendix A - Online Survey Questionnaire

Title: Antecedents and Consequences of Service Improvisation in the Restaurant Context

Dear Survey Participants,

Thank you for your willingness to participate in our study examining antecedents and consequences of service improvisation for RESTAURANT frontline employees. Frontline employees, currently working in non-managerial positions in the United States, are qualified for this survey. This survey may take approximately 10 to 15 minutes to complete. Your participation in this survey is completely voluntary. You may stop completing the survey or refuse the survey at any time without penalty. If you choose to participate in this survey, please take a few minutes to answer each question on the survey as completely and accurately as possible. Your responses will be processed confidentially. No personal data will be collected or reported. Only aggregated response will be reported as a summary form. Should you have any questions regarding the survey, please contact me at rickoh@ksu.edu. I also have included the contact information of Institutional Review Board (IRB) committee chair, Dr. Rick Scheidt, if you have any further concerns or questions, you can contact him at rscheidt@ksu.edu. If you are interested in the results of this study, a summary of results will be available at K-State Research Exchange (http://krex.k-state.edu/dspace/), once the study is completed.

Q1 Are you currently living in the United States?

- ○ Yes
- ○ No

Skip To: End of Survey If Are you currently living in the United States? = No

Q2 What is your employment status?

◯ Managerial Position

◯ Non-Managerial Position

Skip To: End of Survey If What is your employment status? = Managerial Position

Q3 Have you worked at the current restaurant 3 or more months?

◯ Yes

◯ No

Skip To: End of Survey If Have you worked at the current restaurant 3 or more months = No

Q4 What is your gender?

◯ Male

◯ Female

Q5 What is your current position at your restaurant?

◯ Server

◯ Host

◯ Bartender

◯ Busser

◯ Others ____________

Q6 Please indicate the type of restaurant you are currently working?

- ○ Fast Food Restaurant (e.g., McDonald's, Burger King)
- ○ Fast Casual Restaurant (e.g., Chipotle Mexican Grill, Panera Bread)
- ○ Casual Dining Restaurant (e.g., Harvester, TGI Friday's)
- ○ Fine Dining Restaurant (e.g., Full service with specific meal courses, a dress code)
- ○ Others ______________

Q7 Please indicate the ownership structure of your restaurant where you are currently working?

- ○ Franchised
- ○ Non-Franchised (Independent)

Q8 How long have you worked for your current restaurant?

- ○ 3 months – 6 months
- ○ 6 months – 9 months
- ○ 9 months – 12 months (1 Year)
- ○ 12 months (1 Year) – 15 months (1 Year 3 months)
- ○ 15 months (1 Year 3 months) – 18 months (1 Year 6 months)
- ○ 18 months (1 Year 6 months) – 21 months (1 Year 9 months)
- ○ 21 months (1 Year 9 months) – More

Q9 How long have you worked within the Hospitality industry (i.e., hotels, restaurants, and etc.)?

- ○ 3 months – 6 months
- ○ 6 months – 9 months
- ○ 9 months – 12 months (1 Year)
- ○ 12 months (1 Year) – 15 months (1 Year 3 months)
- ○ 15 months (1 Year 3 months) – 18 months (1 Year 6 months)
- ○ 18 months (1 Year 6 months) – 21 months (1 Year 9 months)
- ○ 21 months (1 Year 9 months) – More

Q10 What is your employment status?

- ○ Employed Part-Time (LESS than 30 hours a week)
- ○ Employed Full-Time (MORE than or equal to 30 hours a week)

Q11 What is your age in years? (i.e., 36 years)

Years ___________________

Q12 What is your marital status?

- ○ Married
- ○ Single
- ○ Widow
- ○ Divorced
- ○ Prefer not to answer

Q13 What is the highest level of education you completed?

- ○ Less than high school diploma
- ○ High school graduate
- ○ Associate degree (i.e., Community college, technical school)
- ○ Bachelor's degree
- ○ Graduate Degree (i.e., Master's or Doctoral degree)

Q14 Which of the following best describes your ethnicity?

- ◯ African American
- ◯ Asian
- ◯ Caucasian
- ◯ Native American
- ◯ Hispanic
- ◯ Others ________________

Q15 How long have you been working with your immediate supervisor?

- ◯ 3 months – 6 months
- ◯ 6 months – 9 months
- ◯ 9 months – 12 months (1 Year)
- ◯ 12 months (1 Year) – 15 months (1 Year 3 months)
- ◯ 15 months (1 Year 3 months) – 18 months (1 Year 6 months)
- ◯ 18 months (1 Year 6 months) – 21 months (1 Year 9 months)
- ◯ 21 months (1 Year 9 months) – More

Q16 On a daily average during weekday (Monday - Friday), how many customers do you serve during your shift?

- ◯ 0 – 25 Customers
- ◯ 25 – 50 Customers
- ◯ 50 – 75 Customers

- 75 – 100 Customers
- 100 – 125 Customers
- 125 – 150 Customers
- 150 – More

Q17 On a daily average during weekend (Saturday and Sunday), how many customers do you serve during your shift?

- 0 – 25 Customers
- 25 – 50 Customers
- 50 – 75 Customers
- 75 – 100 Customers
- 100 – 125 Customers
- 125 – 150 Customers
- 150 – More

Q18 The following statements are about how do you deal with unexpected and urgent situations at work. For each statement, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I often have to figure out actions in the moment.	○	○	○	○	○	○	○
I often have to respond in the moment to unexpected problems.	○	○	○	○	○	○	○
I almost always deal with unanticipated events on the spot.	○	○	○	○	○	○	○
I often deviate from standard routines to respond to guests` requests.	○	○	○	○	○	○	○
I often try new approaches to solve guests' problems.	○	○	○	○	○	○	○
I often have to be creative to satisfy customers' needs.	○	○	○	○	○	○	○
I often pull information from many different sources to respond to guests' requests.	○	○	○	○	○	○	○
I am able to make use of all the resources provided by my employer to respond to guests' requests.	○	○	○	○	○	○	○
I often make use of several other workers' expertise to satisfy guests.	○	○	○	○	○	○	○
Please select strongly disagree otherwise you are no longer eligible for further survey. (Dummy Q)	○	○	○	○	○	○	○

Skip To: End of Survey If strongly disagree is not selected for "Please select strongly disagree otherwise you are no longer eligible for further survey."

Q19 The following statements are about how you feel about your immediate manager at work. For each statement listed below, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
My immediate manager can tell if something work-related is going wrong.							
My immediate manager makes my career development a priority.							
I would seek help from my immediate manager if I had a personal problem.							
My immediate manager emphasizes the importance of giving back to the community.							
My immediate manager puts my best interests ahead of his/her own.							
My immediate manager gives me the freedom to handle difficult situations in the way that I feel is best.							
My immediate manager would NOT compromise ethical principles in order to achieve success.							

Q20 Based on your current work environment, please indicate your level of agreement in regards to the following statement.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I make suggestions about better work methods to other team members.	○	○	○	○	○	○	○
Other team members usually let me know when I do something that makes their job easier.	○	○	○	○	○	○	○
I let other team members know when they have done something that makes my job easier.	○	○	○	○	○	○	○
Other members of my team recognize my potential.	○	○	○	○	○	○	○
Other members of my team understand my problems and needs.	○	○	○	○	○	○	○
I am flexible about switching job responsibilities to make things easier for other team members.	○	○	○	○	○	○	○
In busy situations, other team members ask me to help out.	○	○	○	○	○	○	○
In busy situations, I volunteer my efforts to help others on my team.	○	○	○	○	○	○	○
I am willing to help finish work that had been assigned to others.	○	○	○	○	○	○	○
Other members of my team help finish work that was assigned to me.	○	○	○	○	○	○	○

Q21 Please think about how you feel about yourself while at work. For each statement listed below, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
A job is what you make of it.	○	○	○	○	○	○	○
On most jobs, people can pretty much accomplish whatever they set out to accomplish.	○	○	○	○	○	○	○
If you know what you want out of a job, you can find a job that gives it to you.	○	○	○	○	○	○	○
If employees are unhappy with a decision made by their boss, they should do something about it.	○	○	○	○	○	○	○
Most people are capable of doing their jobs well if they make the effort.	○	○	○	○	○	○	○
Promotions are given to employees who perform well on the job.	○	○	○	○	○	○	○
People who perform their jobs well generally get rewarded.	○	○	○	○	○	○	○
Most employees have more influence on their supervisors than they think they do.	○	○	○	○	○	○	○

22 Please think about how you feel about yourself while at work. For each statement listed below, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The work I do is very important to me.	○	○	○	○	○	○	○
My job activities are personally meaningful to me.	○	○	○	○	○	○	○
The work I do is meaningful to me.	○	○	○	○	○	○	○
I am confident about my ability to do my job.	○	○	○	○	○	○	○
I am self-assured about my capabilities to perform my work activities.	○	○	○	○	○	○	○
I have mastered the skills necessary for my job.	○	○	○	○	○	○	○
I have significant autonomy in determining how I do my job.	○	○	○	○	○	○	○
I can decide on my own how to go about doing my work.	○	○	○	○	○	○	○
I have considerable opportunity for independence and freedom in how I do my job.	○	○	○	○	○	○	○
Please select strongly disagree otherwise you are no longer eligible to continue the survey.	○	○	○	○	○	○	○
My impact on what happens in my restaurant is large.	○	○	○	○	○	○	○
I have a great deal of control over what happens in my restaurant.	○	○	○	○	○	○	○
I have significant influences over what happens in my restaurant.	○	○	○	○	○	○	○

Skip To: End of Survey If strongly disagree is not selected for "Please select strongly disagree otherwise you are no longer eligible for further survey."

Q23 The following statements are about how you feel about yourself while at work. For each statement listed below, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I feel emotionally drained from my work.	○	○	○	○	○	○	○
I feel used up at the end of the workday.	○	○	○	○	○	○	○
I feel fatigued when I get up in the morning and have to face another day on the job.	○	○	○	○	○	○	○
Working with people all day is really a strain for me.	○	○	○	○	○	○	○
I feel burned out from my work.	○	○	○	○	○	○	○
I feel frustrated by my job.	○	○	○	○	○	○	○
I feel I am working too hard on my job.	○	○	○	○	○	○	○
I feel like I am at the end of my rope.	○	○	○	○	○	○	○

Q24 The following statements are about how you feel about yourself while at work. For each statement listed below, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Considering all the things I do, I handle dissatisfied customers quite well.	○	○	○	○	○	○	○
No customer I deal with leaves with problems unresolved.	○	○	○	○	○	○	○
Satisfying complaining customers is a great thrill to me.	○	○	○	○	○	○	○
Complaining customers I have dealt with in the past are among today's most loyal customers.	○	○	○	○	○	○	○
I don't mind dealing with complaining customers.	○	○	○	○	○	○	○

Q25 The following statements address your feelings regarding support from your immediate manager or coworkers as it relates to creative activities. For each statement listed below, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
My immediate manager discusses with me my work-related ideas in order to improve them.	○	○	○	○	○	○	○
My coworkers other than my immediate manager are always ready to support me if I introduce an unpopular idea or solution at work.	○	○	○	○	○	○	○
My immediate manager support experimentation with new methods and ways of doing things.	○	○	○	○	○	○	○
My immediate manager gives me useful feedback about my ideas concerning the workplace.	○	○	○	○	○	○	○
My coworkers other than my immediate manager give me useful feedback about my ideas concerning the workplace.	○	○	○	○	○	○	○
My immediate manager is always ready to support me if I introduce an unpopular idea or solution at work.	○	○	○	○	○	○	○
My coworkers other than my immediate manager are almost always supportive when I come up with a new idea about my job.	○	○	○	○	○	○	○

Q26 The following statements address a number of statements concerning personal attitudes and traits. For each statement listed below, indicate how much you agree or disagree.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
It is sometimes hard for me to go on with my work if I am not encouraged.	○	○	○	○	○	○	○
I sometimes feel resentful when I don't get my way.	○	○	○	○	○	○	○
On a few occasions, I have given up doing something because I thought too little of my ability.	○	○	○	○	○	○	○
There have been times when I felt like rebelling against people in authority even though I knew they were right.	○	○	○	○	○	○	○
There have been occasions when I took advantage of someone.	○	○	○	○	○	○	○
I sometimes try to get even rather than forgive and forget.	○	○	○	○	○	○	○
There have been times when I was quite jealous of the good fortune of others.	○	○	○	○	○	○	○
I am sometimes irritated by people who ask favors of me.	○	○	○	○	○	○	○
No matter who I'm talking to, I'm always a good listener.	○	○	○	○	○	○	○
I'm always willing to admit it when I make a mistake.	○	○	○	○	○	○	○
I am always courteous, even to people who are disagreeable.	○	○	○	○	○	○	○
I have never been irked when people expressed ideas very different from my own.	○	○	○	○	○	○	○
I have never deliberately said something that hurt someone's feelings.	○	○	○	○	○	○	○

Appendix B - IRB Approval

KANSAS STATE UNIVERSITY | University Research Compliance Office

TO: Dr. Jichul Jang
Hospitality Management
105 Justin Hall

Proposal Number: 9547

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: 11/23/2018

RE: Proposal Entitled, "Antecedents and consequences of service improvisation in the restaurant industry"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

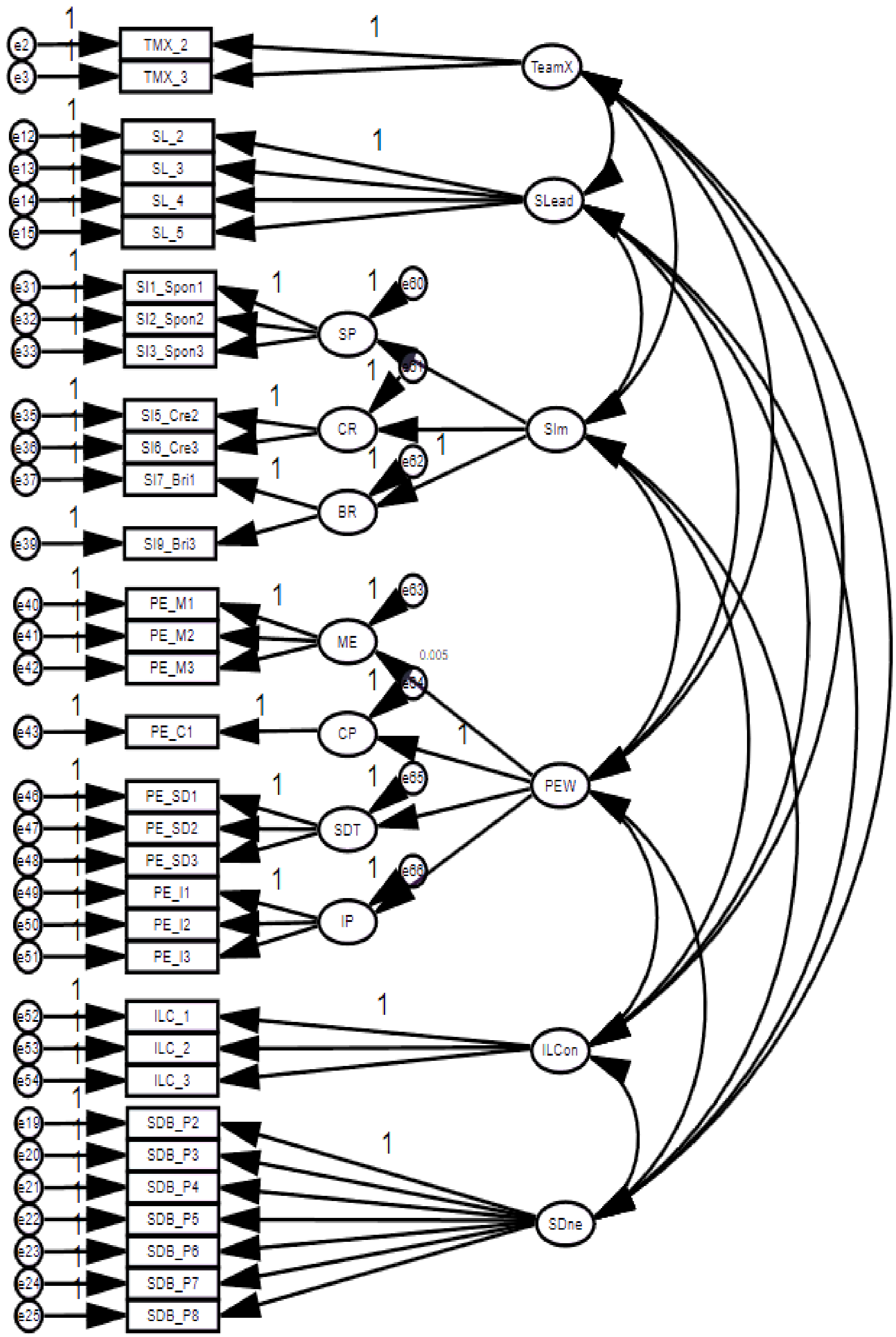
Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2, subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

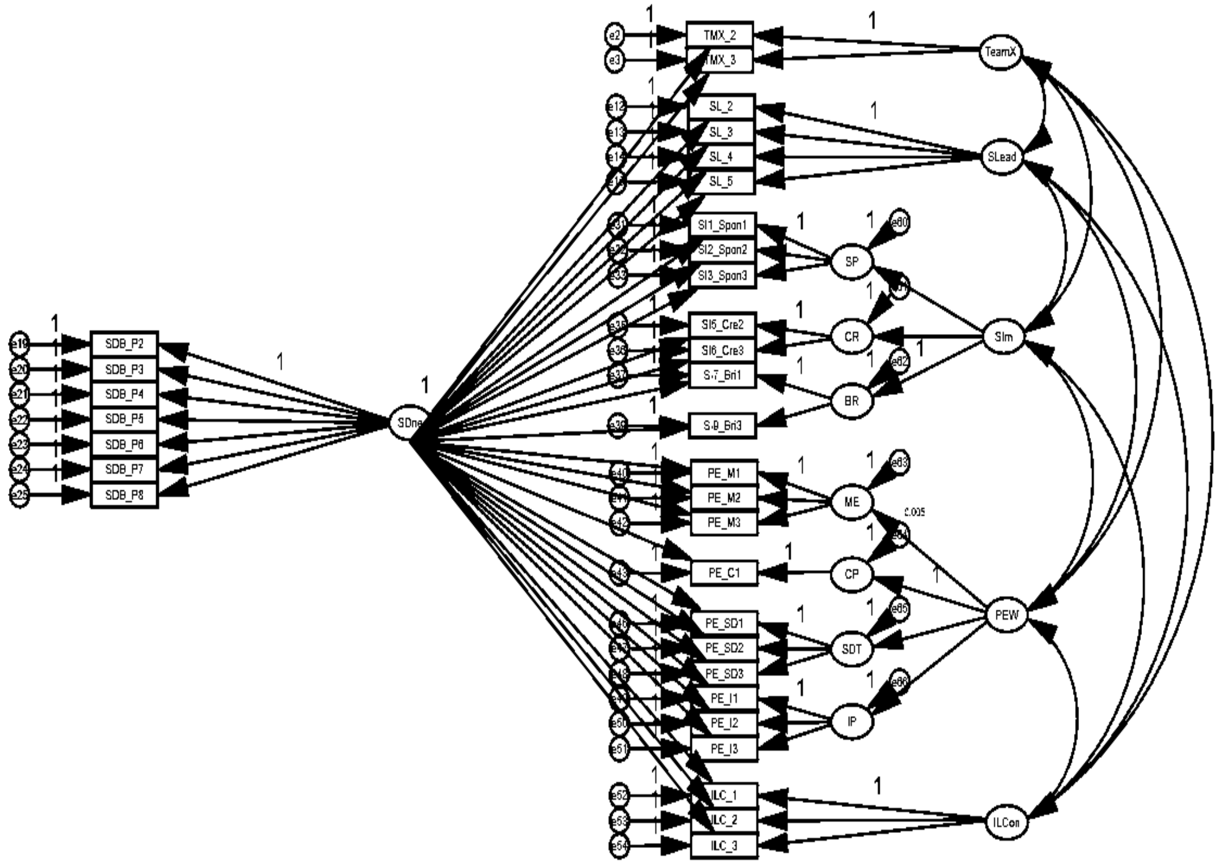
Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

203 Fairchild Hall, Lower Mezzanine, 1601 Vattier St., Manhattan, KS 66506-1103 | 785-532-3224 | fax: 785-532-3278
comply@k-state.edu | k-state.edu/research/comply

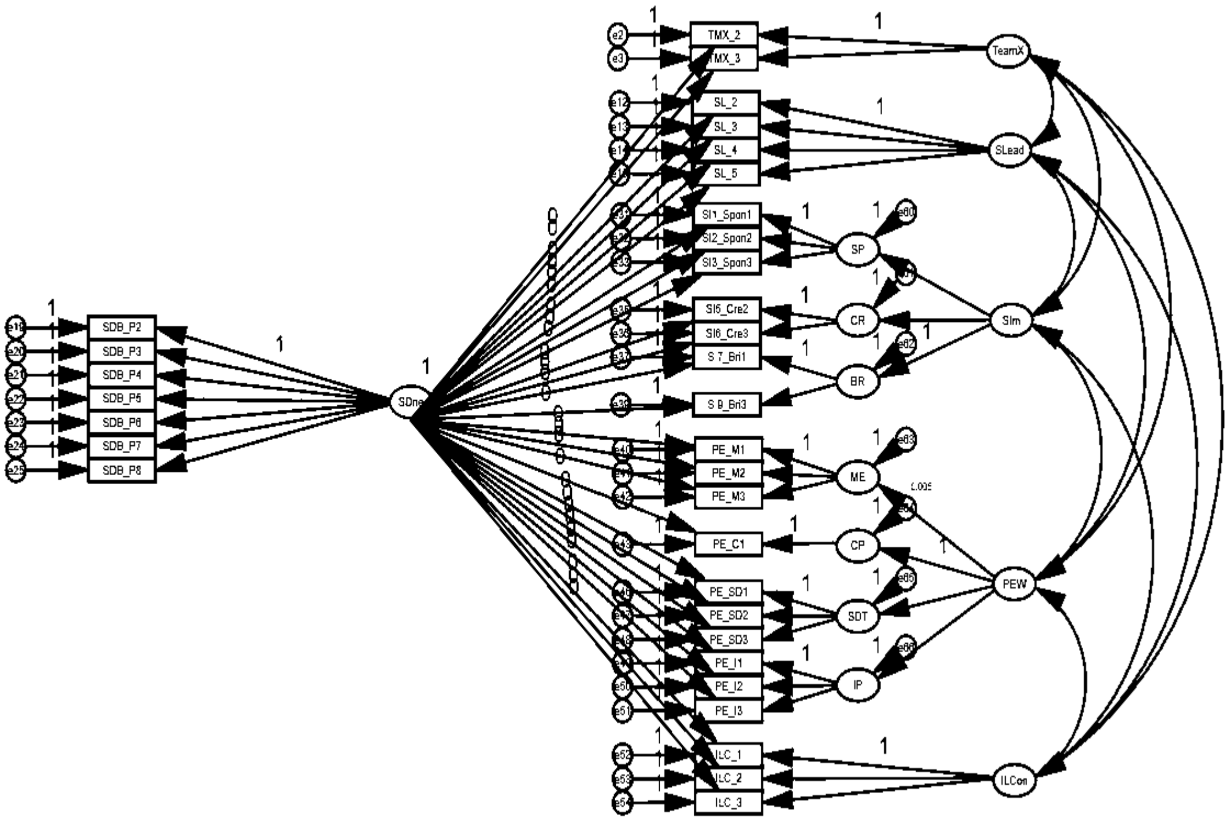
Appendix C - CFA Model for Antecedent Study in AMOS



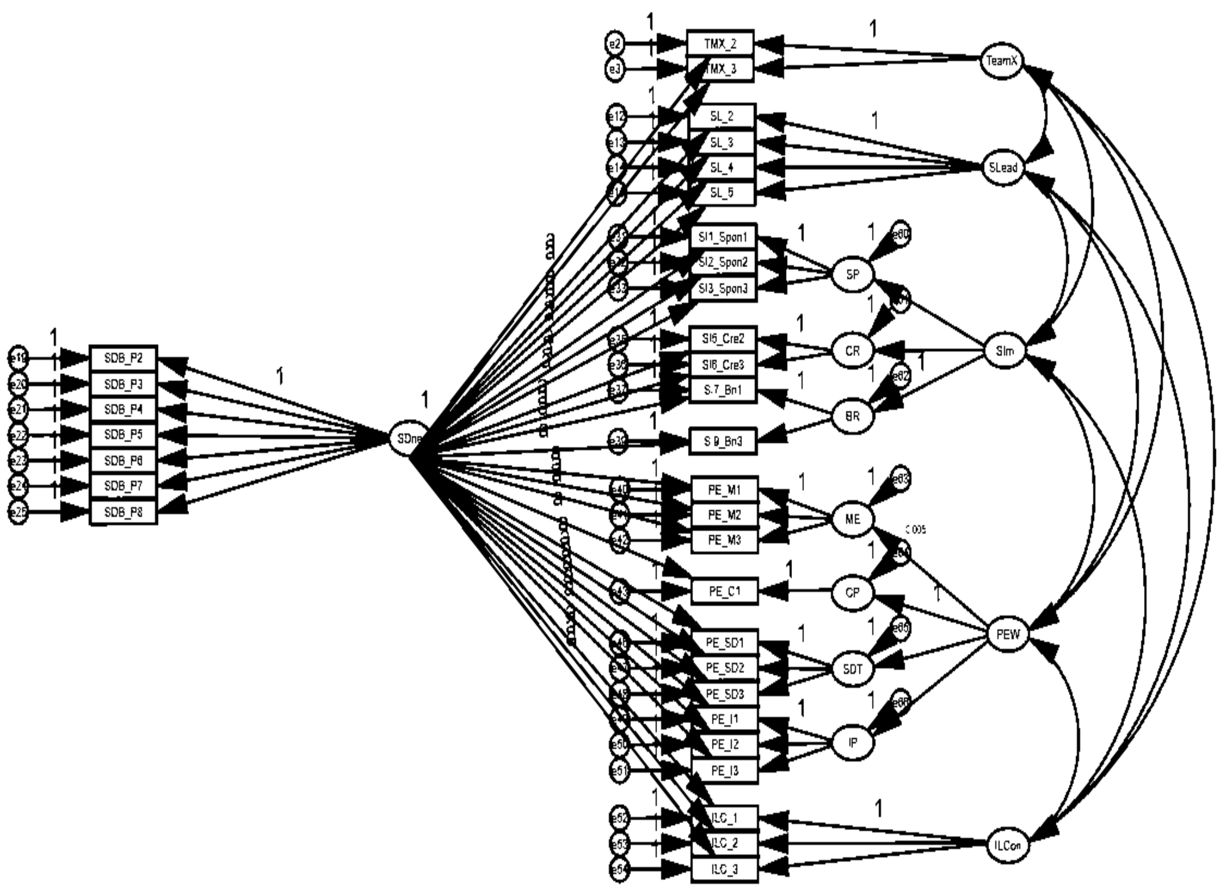
Appendix D - Unconstrained Model for Antecedent Study in AMOS



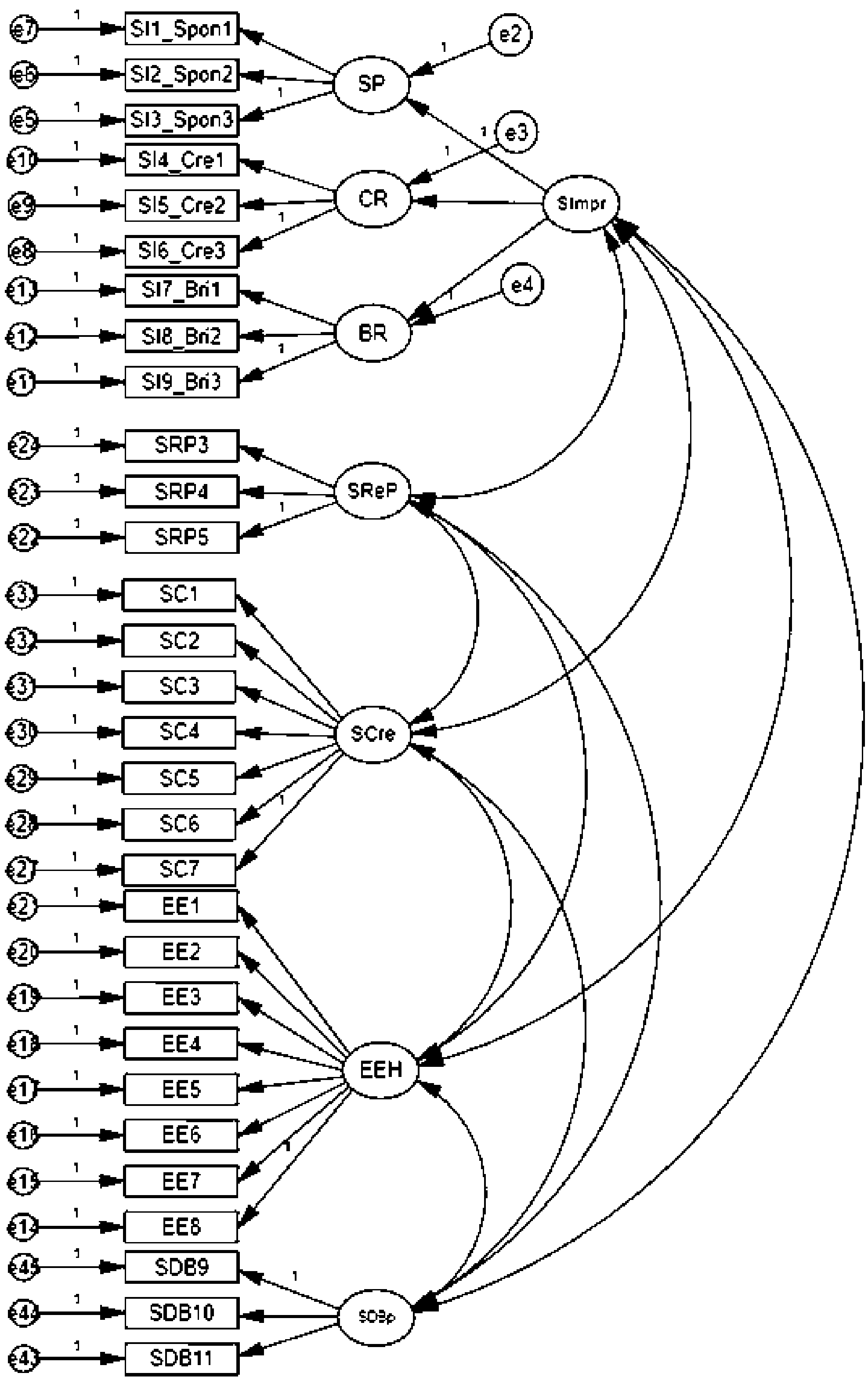
Appendix E - Zero Constrained Model for Antecedent Study in AMOS



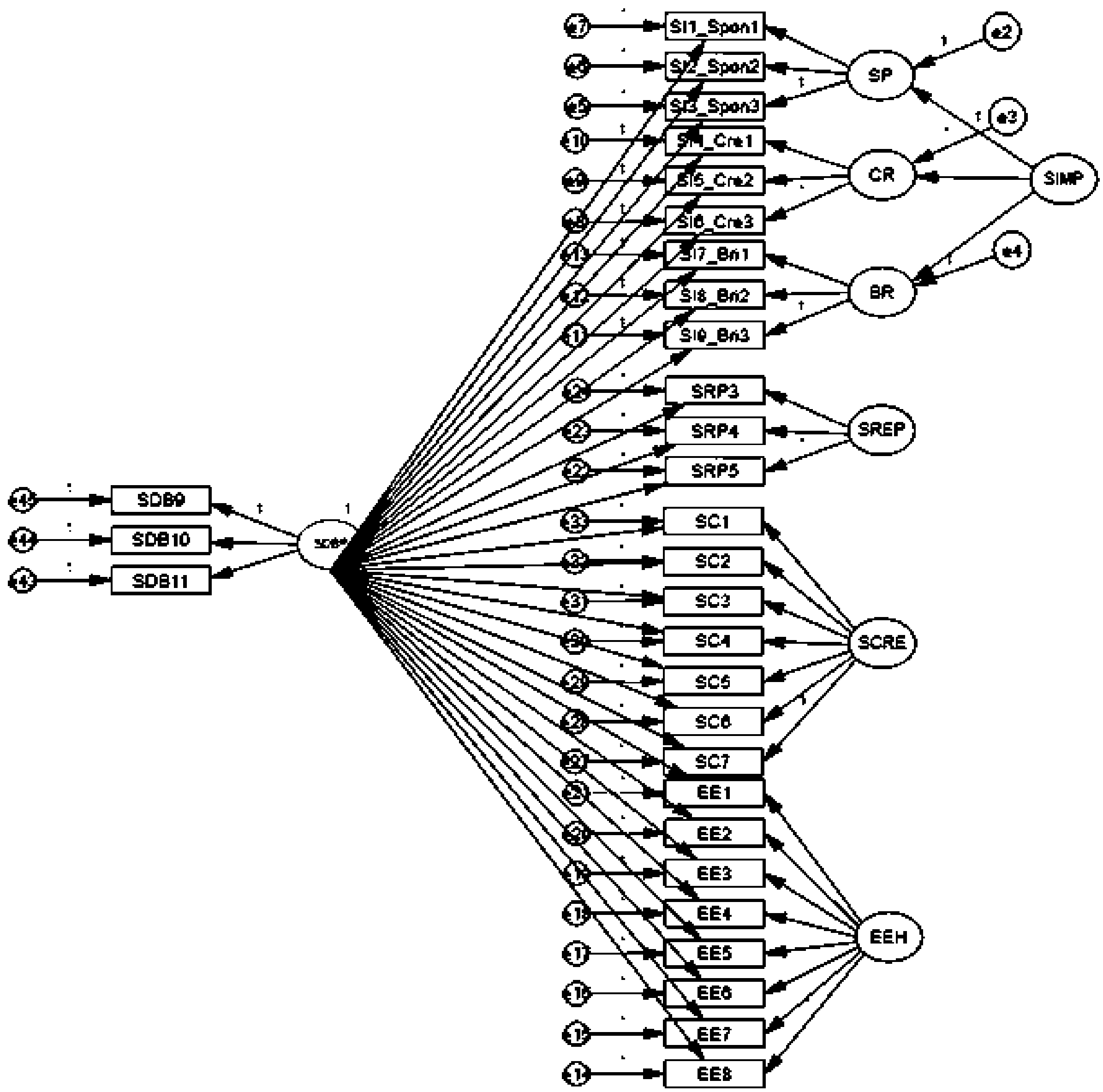
Appendix F - Equal Constrained Model for Antecedent Study in AMOS



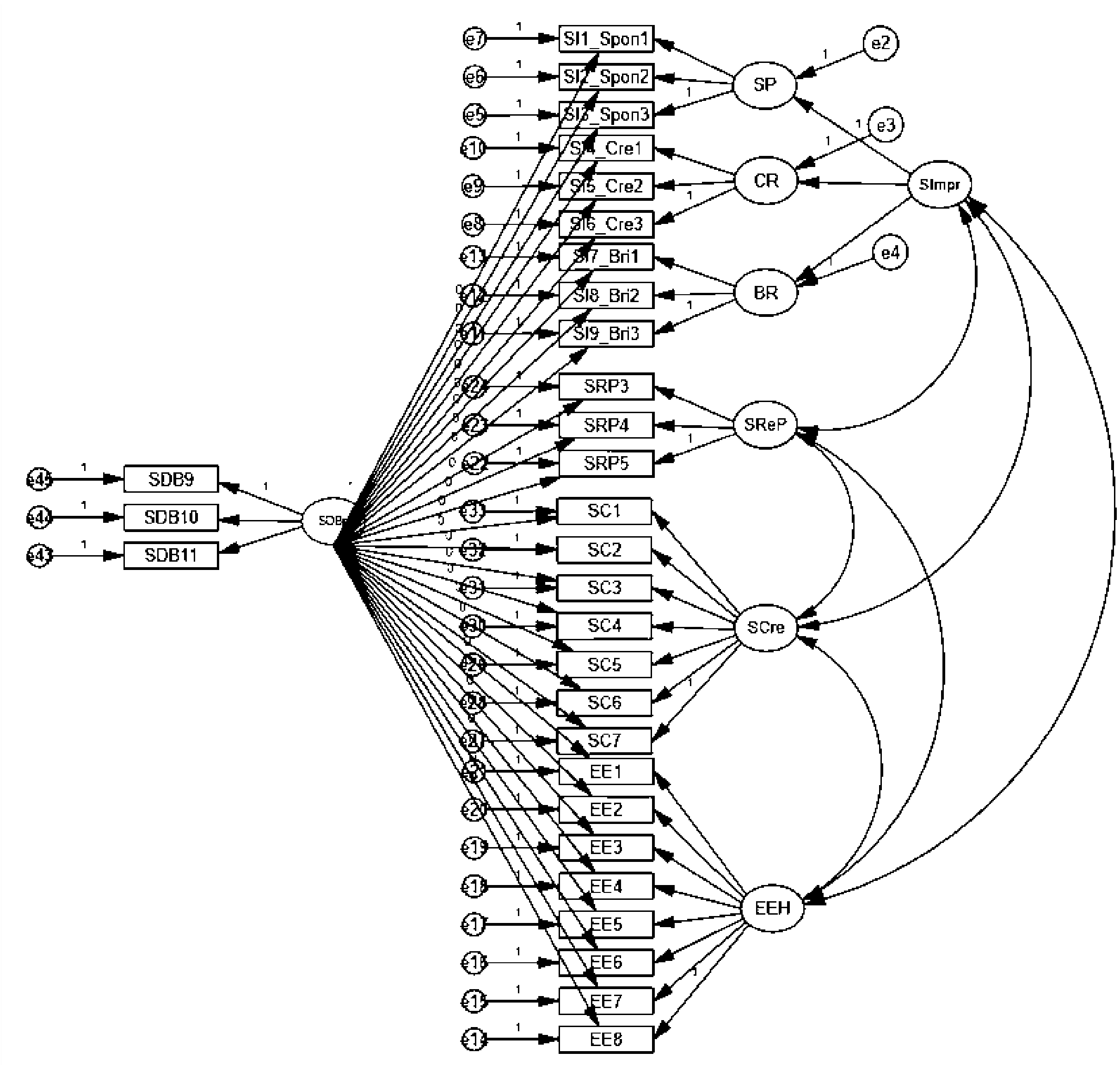
Appendix G - CFA Model for Consequence Study in AMOS



Appendix H - Unconstrained Model for Consequence Study in AMOS



Appendix I - Zero Constrained Model for Consequence Study in AMOS



Appendix J - Equal Constrained Model for Consequence Study in AMOS