

ROLE OF PERSONALITY TRAITS ON EMPLOYEES' SERVICE RECOVERY  
PERFORMANCE

Miss Wanny Oentoro



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วัตถุประสงค์ของวิทยานิพนธ์ฉบับนี้ คือการตรวจสอบบทบาทอิทธิพลร่วมของลักษณะบุคลิกภาพ (ได้แก่ บุคลิกภาพแบบแสดงตัว บุคลิกภาพแบบมีจิตสำนึก บุคลิกภาพแบบประนีประนอม บุคลิกภาพแบบมีความมั่นคงทางอารมณ์ และ บุคลิกภาพแบบเปิดรับประสบการณ์) ต่อความสัมพันธ์ระหว่าง คุณภาพการให้บริการภายในองค์กร (เช่น การบริหารทรัพยากรมนุษย์ หรือ การสนับสนุนจากหัวหน้างาน) และ ผลงานการพลิกฟื้นการให้บริการของพนักงาน โดยแบบจำลองการพลิกฟื้นการให้บริการของพนักงานที่นำเสนอนี้ ได้พัฒนาจากพื้นฐานทฤษฎีห่วงโซ่การบริการแห่งกำไร ซึ่งทฤษฎีที่เป็นที่รู้จักอย่างแพร่หลายนี้ ได้เสนอแนวคิดว่าคุณภาพการให้บริการภายในองค์กรนั้น สามารถวัดผลได้จากความรู้สึกของพนักงานจากงานที่รับผิดชอบ จากหัวหน้างาน และจากสิ่งแวดล้อมภายในองค์กร ซึ่งสามารถส่งผลกระทบต่อแบบห่วงโซ่ที่นำไปสู่การเพิ่มพูนในเรื่องของคุณภาพการบริการของพนักงาน ความพึงพอใจของลูกค้า การเติบโตขององค์กรและผลกำไร (Heskett, Sasser, & Schlesinger, 1997) ยิ่งกว่านั้น ผลงานวิจัยนี้ได้ประยุกต์นำทฤษฎีการแลกเปลี่ยนทางสังคม (Blau, 1964) มาอธิบายความสัมพันธ์ของการแลกเปลี่ยนระหว่างการสนับสนุนจากองค์กรและหัวหน้างาน กับการตอบแทนของพนักงานคอลเซ็นเตอร์ โดยการพลิกฟื้นคุณภาพการบริการต่อลูกค้าด้วย

แบบสอบถามได้ถูกส่งไปยังพนักงานคอลเซ็นเตอร์ที่อยู่ในองค์กรเพื่อการบริการที่ประเทศไทย ในจังหวัดกรุงเทพมหานคร ซึ่งเทคนิคการวิเคราะห์การถดถอยแบบปฏิสัมพันธ์นั้นได้นำมาใช้เป็นเครื่องมือในการทดสอบสมมติฐาน รวมทั้งกราฟปฏิสัมพันธ์และการวิเคราะห์ความชันอย่างง่าย ได้ถูกนำไปใช้เพื่อการติดตามผลการวิเคราะห์ ซึ่งผลของการวิเคราะห์ได้เปิดเผยว่า มีแค่บุคลิกภาพแบบมีความมั่นคงในอารมณ์เท่านั้นที่มีอิทธิพลร่วมกับความสัมพันธ์ระหว่างคุณภาพการให้บริการภายในองค์กร เช่น การบริหารทรัพยากรมนุษย์ หรือการสนับสนุนจากหัวหน้างาน โดยที่ผลงานการพลิกฟื้นการให้บริการของพนักงานนั้น พนักงานที่มีบุคลิกแบบมีความมั่นคงในอารมณ์สูงจะอุทิศตนเพื่อการพลิกฟื้นการบริการที่มากกว่าเมื่อได้รับการสนับสนุนจากทั้งองค์กรและหัวหน้างาน

งานวิจัยฉบับนี้ได้สนับสนุนทฤษฎีห่วงโซ่การบริการแห่งกำไร โดยการรวมลักษณะบุคลิกภาพในแบบจำลอง ซึ่งทำหน้าที่เป็นอิทธิพลร่วมที่ส่งผลให้ความสัมพันธ์ระหว่างคุณภาพการให้บริการภายในองค์กรและพฤติกรรมบริการของพนักงานให้แข็งแกร่งขึ้น ดังนั้นผลสรุปจากวิจัยนี้สามารถสรุปได้ว่า ลักษณะบุคลิกภาพแบบมีความมั่นคงในอารมณ์ เป็นปัจจัยที่มีความสำคัญที่ส่งผลต่อผลงานการพลิกฟื้นการให้บริการของพนักงาน ดังนั้น นายจ้างควรจะรับรู้ว่านอกเหนือจากการให้สนับสนุนจากฝ่ายทรัพยากรบุคคลและหัวหน้างานแล้ว ปัจจัยเรื่องลักษณะบุคลิกภาพของพนักงานก็ควรได้รับการพิจารณาเช่นกัน เพื่อผลงานการบริการที่ดียิ่งขึ้น

ภาควิชา พานิชศาสตร์

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WANNY OENTORO: ROLE OF PERSONALITY TRAITS ON EMPLOYEES' SERVICE RECOVERY PERFORMANCE. ADVISOR: ASSOC. PROF. ANANCHAI KONGCHAN, D.B.A., CO-ADVISOR: ASST. PROF. PATCHARA POPAITOON, Ph.D., 193 pp.

The purpose of this dissertation is to investigate the moderating role of personality traits (extraversion, conscientiousness, agreeableness, emotional stability, openness to experience) on the relationships between internal service quality (i.e. HR practices and perceived supervisory support) and employees' service recovery performance. The proposed model of employees' service recovery performance is developed from the widely recognized theoretical basis, which is the service profit chain. Service profit chain (SPC) proposed that internal service quality, which is measured by the feelings that employees have toward their job, supervisors, and working environment would ignite a chain effect leading to the enhancement of employee service performance, customer satisfaction, organization's growth and profitability (Heskett, Sasser, & Schlesinger, 1997). Moreover, the study applied social exchange theory (Blau, 1964) to explain the exchange relationship between the support made by the organization as well as supervisors and the call center agents' response in returning the favor to the organization by providing service recovery performance.

Survey questionnaires enclosed in envelopes were sent to the call center agents in service organizations located in Bangkok, Thailand. Moderated regression analysis was employed to test the hypotheses. The follow-up analyses include graphing the interaction effect and simple slopes testing were implemented. The findings reveal that only emotional stability appears to moderate the relationships between internal service quality (HR practices and perceived supervisory support) and service recovery performance. Employees who have high emotional stability reported greater dedication in performing service recovery when they perceived support from the organization and supervisors. In doing so, the study contributed to the service profit chain theory by incorporating personality traits in to the model as a moderating mechanism that strengthen the relationship between internal service quality and employee's service behaviors. Therefore, the results clearly suggest that emotional stability is an important influencing factor for employees' service recovery performance. Employers should then be aware that aside from the support provided by HR offices and supervisors, they should also take into consideration the employees' personality factor when it comes to service performance.

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Student's Signature .....

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## CHAPTER 1

### INTRODUCTION

This chapter provides an overview of this dissertation. It presents the background and structure of the research. First, the introduction is explained in section 1.1, which is followed by the research objectives, conceptual framework, and research questions. The scope of the study is presented in section 1.4, and the structure of the study is presented in the last section.

#### 1.1 Introduction

The challenge that most of the organizations face in the 21<sup>st</sup> century is to succeed in the global market economy. Many firms seek to differentiate themselves from their competitors by providing superior customer service. Good service quality satisfies loyal customers, which in turn leads to organization's prosperity (Heskett, Sasser, & Schlesinger, 1997; Hong, Hu, Liao, & Jiang, 2013). Aside from this, a well-managed customer service can bring in better market share, wider brand awareness, and a stronger competitive advantage. However, this opportunity could be reversed if the customers have negative experiences with the company's service.

Unfortunately, failures and mistakes are unavoidable in service encounters (Babakus, Yavas, Karatepe, & Avci, 2003; Johnston & Fern, 1999; Karatepe, 2006). Maxham (2001) defined service failure as "any service-related mishaps or problems that occur during a consumer's experience with the firm(2001, p. 11) (2001, p. 11)." Service failures carry a serious threat to the long-term survival of the firm that results in customer dissatisfaction, negative word-of-mouth, and ultimately, reduced market share(J. S. Smith, Fox, & Ramirez, 2010; Wirtz & Mattila, 2004). In the opposite, customer complaints or service failures could help identify the organization's defects

in their work processes and in employee practices. This will then infuse service quality improvement as well as reduction of future complaints to the company (Masdek, Rozana, Aziz, & Awang, 2011). Moreover, if the firm addresses service failures successfully, that is by correctly solving customer's dissatisfaction or promptly recovering service failures, it can lead to higher customer satisfaction, customer's loyalty, positive word-of-mouth, and repurchase intention (H. Liao, 2007; Orshingher, Valentini, & de Angelis, 2010; Ruyter & Wetzels, 2000).

Customer-contact employees were claimed as one of the crucial factors to implement service recovery (N. J. Ashill, Rod, & Carruthers, 2008; Babakus et al., 2003; J. S. Smith et al., 2010). In many organizations, customers' interaction with the employees is the principal interface between firms and customers. Since employees are the first who interact directly with the customers, they are responsible for addressing the service failure immediately and efficiently (Malhotra & Mukherjee, 2004). Most of the complaints usually take place merely between employees and dissatisfied customers. During this period, management does not have a hand over the whole situation, and leave the recovery process to the attending employee. The success in service recovery rests solidly on how skillful and motivated the employees are (Masdek et al., 2011). Whether the companies will gain or lose, it solely depends now on how the management supports these customer service employees. As such, it is important to manage these customer contact employees properly.

Many successful organizations including Cisco Systems, Hewlett-Packard, Procter & Gamble, or Southwest Airline attributed their success to the efforts in building a strong and committed workforce (Collins, 2001). Service profit chain (SPC) supports this notion, which contends that the success of organizations is derived from customer satisfaction, which in turn is driven by employee satisfaction and their efforts (Heskett et al., 1997). Internal service quality, which is measured by the feelings that employees have toward their job, work environment and their supervisors, serves as the foundation of the model and it ignites a chain effect leading to the organization's growth and profitability. Prior studies support the notion that internal service quality, such as

training, empowerment, and management support, is one of the key influencers to strengthen the employee service performance and their efforts to satisfy the customers (N. J. Ashill, Carruthers, & Krisjanous, 2005; Christo Boshoff & Allen, 2000; Elmadag, Ellinger, & Franke, 2008; Gibbs & Ashill, 2013; Masoud & Hmeidan, 2013; Rod, Carruthers, & Ashill, 2006). Internal service quality can be demonstrated by providing highly motivated human resource practices (Babakus et al., 2003; Hallowell, Schlesinger, & Zornitsky, 1996; Huselid, 1995; Little & Dean, 2006) or offering emotional support in the form of encouragement or concern to the employees' well-being (Babin & Boles, 1996; Ng & Sorensen, 2008; Sergeant & Frenkel, 2000).

A large body of strategic human resource management suggests that the use of HR practices designed to enhance employees' competencies, motivation, and performance provide high-quality service to the external customers (Hallowell et al., 1996; Hong et al., 2013; Huselid, 1995; Lau, 2000; C.-S. Liao & Lee, 2009; Roth & Jackson III, 1995). Human resource management or human resource practices are concerned with all aspects of how people are employed and managed in the organization (Conway, 2004). It includes employment security; selective hiring; extensive training; self-managed team, pay for performance; sharing information; and reduction of status difference (Pfeffer & Veiga, 1999). Several studies have asserted that synergy and congruence in these human resources management practices have significant effects on the quality implementation (Pfeffer & Veiga, 1999; Yang, 2006). Previous research into SPC indicated that HR practices is one important aspect of internal service quality that influence employee satisfaction and service performance (Bowen & Ostroff, 2004; Dyer & Reeves, 1995; Hong et al., 2013; Schneider & Bowen, 1993). Hence, it can be assumed that to influence employees' service recovery performance, management can motivate by showing support to employees through the implementation of HR practices.

In addition to HR practices, emotional support such as sympathy, care, comfort and encouragements coming from the managers and supervisors should be offered to influence employee service recovery behaviors (Babin & Boles, 1996; Ng & Sorensen,

2008). Prior researchers argued that supervisor acts as the representative of the organization, as a result, employees usually consider the way supervisors interact with them as the reflection of the organization (Hong et al., 2013; Schneider & Bowen, 1993). Perceived supervisory support refers to the degree into which employees perceive how their supervisors value their contributions and care about their well-being (Kottke & Sharafinski, 1988). Past empirical evidence indicated that employees who perceived a friendly and supportive relationship with supervisors had a stronger perception on their capability to recover service failures and do well in their job performance (Van Vaerenbergh, Van Den Broeck, & Lariviere, 2014; Yavas, Karatepe, & Babakus, 2010). Therefore, to repay indebtedness toward their supervisors, employees increase their efforts and performance to aid the organization.

By synthesizing from past research studies and service profit chain model (Heskett et al., 1997), HR practices and supervisory support serve as the proxies of internal service quality that create favorable working environment promoting employee's productivity and satisfaction. The link between internal service quality (i.e. HR practices and supervisor support) and employee's performance had been confirmed by several empirical evidences using service profit chain and social exchange theory as the theoretical framework (Gilbert, De Winne, & Sels, 2011; Gould-Williams, 2003; Gould-Williams & Davies, 2005; Hong et al., 2013; Whitener, 2001). Social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960) explain the relationships between internal service quality and performance. Social exchange theory posits that the actions of individuals are motivated by the returns they would get once the action has been completed (Blau, 1964). The norm of reciprocity is the basic tenet of social exchange theory. This norm is expressed as the expectation that people will respond favorably to each other by returning benefits for benefits (Cropanzano & Mitchell, 2005). Numbers of organizational researchers have been using social exchange theory to describe motivation toward employees' attitudes and behaviors such as employees' performance that derive from how they perceive their employer commits and supports them (Settoon, Bennett, & Liden, 1996; Whitener, 2001; Wikhamn & Hall, 2012). Social exchange theory argued that when management considers the



employees' need as a priority, it is likely that employees will reciprocate with favorable attitudes and behaviors toward the organization (Blau, 1964). HR practices and supervisory support, as the proxy of internal service quality, can contribute to the positive exchange relationship between employees and their organization. For instance, employees interpret organizational actions such as HR practices (i.e. training, rewards, compensation, and promotion) as the indicator of the personified organization's commitment toward them (Settoon et al., 1996). As a consequence, employees will reciprocate their performance as a return to the organization (Gould-Williams & Davies, 2005). Therefore, it is expected that employees will reciprocate their employer by putting their effort to recover service failures after experiencing management supports.

Inopportunately, some employees may not reciprocate nor respond to the expected level due to the different individual factors such as personality, values, competencies, or expectations. These factors potentially create variation in employees' perception and interpretation towards their expectations of the organization (Nadler & Tushman, 1980; Nishii, Lepak, & Schneider, 2008). Petrou and Kouvonen (2011) argued that despite the influence of management support factors, personality traits could lead to unexpected and adverse outcomes. Personality traits can influence individual's attitude and behaviors more than any other factors (Kristop, 1996). Schultz (2002) convinced that it is important to learn what makes employee act the way they do and why internal promise deliverers fail to perform. Consistently, a research by Ashill et al. (2009) on service recovery performance claimed that personality traits can influence employees' performance in dealing with service failure. Personality is defined as a relatively stable set of characteristics, tendencies, and temperaments that have been significantly formed by inheritance, social culture, and environment factors (Hogan, Hogan, & Roberts, 2001). It is most commonly labeled into five dimensions: (1) conscientiousness (2) extraversion (3) agreeableness (4) emotional stability and (5) openness to experience (Lewis R Goldberg, 1999; McCrae & Costa, 1997; Perrewe & Spector, 2002).

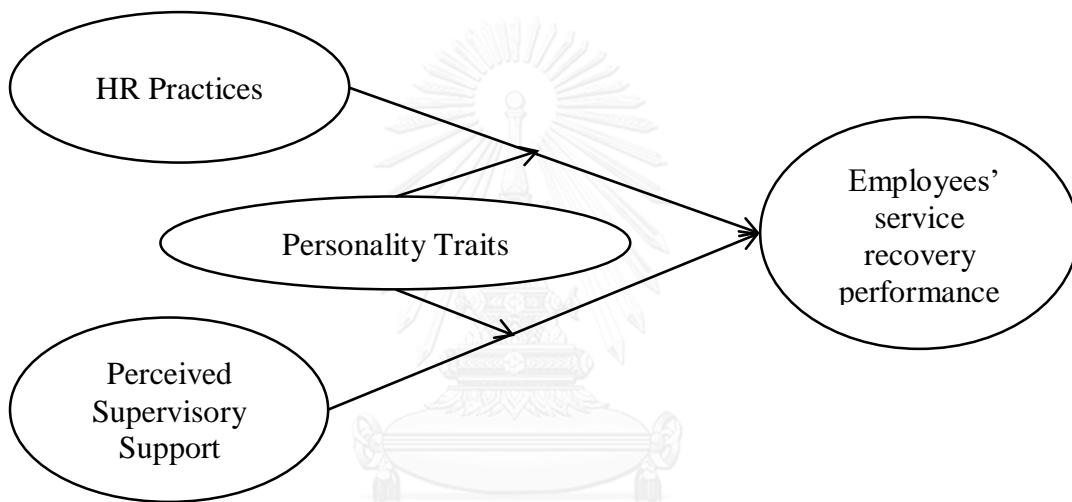
Several researchers argued that personality traits is an important antecedent of service recovery performance (N. Ashill et al., 2009; Karatepe, 2006; Yavas et al., 2010);

however, few researchers have empirically studied the influence of personality on service recovery performance (Cheraghalizadeh, 2014). Prior studies focused only on the separate influences of management support (C. Boshoff & Tait 1996; Masoud & Hmeidan, 2013; Rod et al., 2006) or personality traits (Karatepe, 2006; Yavas et al., 2010) on service recovery performance. Unfortunately, lack of evidence in service recovery performance literature has considered personality traits as an influencer that moderates the relationship between management support and employees' service recovery performance. Colbert et al. (2004) (2004)(2004) argued that in the context of social exchange theory and norm of reciprocity, individuals are expected to reciprocate their indebtedness, but this reciprocating act does not always exist unless those individuals have a certain personality trait. As such, researchers had called for more study examining the joint relationship between personality traits and perceptions of work situation toward work outcomes (Colbert et al., 2004; Kamdar & Dyne, 2007). Moreover, service profit chain researchers also called for attention to explore potential moderators such as personal disposition or personality traits that could affect employee's perceptions of internal service quality and their service behaviors (Dietz, Pugh, & Wiley, 2004; Hong et al., 2013; Mayer, Ehrhart, & Schneider, 2009; Schneider, Salvaggio, & Subirats, 2002). As the company must find ways to effectively manage their employees to help ensure that their attitude and behaviors are conducive to the delivery of quality service, understanding individual differences would benefit the organization as they can recruit employees with right attitude as well as those who are able to reciprocate good deeds to the company.

## **1.2 Research Objectives and Framework**

Based on the arguments of the previous section, a research framework has been developed so as to understand the extent to which the employees' service recovery performance is affected by internal service quality. This study adopted the employee perspective in gathering their thoughts towards HR practices and their supervisory support as well as their reaction to recovery service failure to the organization's

customers. Moreover, individual differences such as personality traits have been emphasized in the study in order to explore whether these individual differences could explain the variation in employees' service recovery performance. Specifically, the objectives of this study are (1) to investigate the moderating effect of Big Five personality traits toward the relationship between perceived HR practices and employees' service recovery performance; and (2) to investigate the moderating effect of Big Five personality traits toward the relationship between perceived supervisory support and employees' service recovery performance.



*Figure 1: The proposed model for employees' service recovery performance*

With regard to the above framework (Figure 1), service profit chain and social exchange theory are used as the theoretical foundation to explain the linkage between independent variables: (1) HR practices and (2) perceived supervisory support, and the dependent variable, employees' service recovery performance. Employees' perception in HR practices and supervisory support represent the proxy of internal service quality in service profit chain model, whereas employees' service recovery performance is the service capability that the employees will reciprocate as the exchange to the organization. Moreover, personality traits serve as the moderator that may strengthen or weaken the relationship between internal service quality (HR practices and perceived supervisory support) and employees' service recovery performance.

### **1.3 Research Questions**

In order to understand the moderating effect of personality toward employees' service recovery performance, the following questions need to be answered:

- 1) To what extent does HR practices influence employees' service recovery performance?
- 2) To what extent does perceived supervisory support influence employees' service recovery performance?
- 3) To what extent do Big Five personality traits moderate the influence between HR practices and employees' service recovery performance?
- 4) To what extent do Big Five personality traits moderate the influence between perceived supervisory support and employees' service recovery performance?

### **1.4 Scope of the Study**

This study was conducted in service organization located in Bangkok, Thailand. Samples were taken from call centers who work in service organizations namely, Telecommunication and Financial & Banking companies. These call centers are chosen as the prospects as they are the primary contact employees who spent their time dealing directly with customers and responding their inquiries, problems, and complaints. The nature of study used is a survey by which is randomly distributed by the companies' human resource officers to call center agents who agreed to answer the questionnaire during lunch and/or break time.

Call center is serving as the primary channel (or the only in some company) where customer can interface for after-sale and supplementary service, information, ticketing, reservations, and complaint resolution (Anton, 2000; Dean, 2007; Russell, 2008). The growth in the use of customer service or call center has been driven by customer demand to access range of services during out of office hours. It is the focal point of the firm to interact with customers 24 hours a day throughout the year. Many firms seek to differentiate themselves from their competitors by providing superior customer service. The work environment of customer service or call center has rigid controlling rules and

strict standards. Nature of the work in these call centers are repetitive and pressurized. Unlike face-to-face service encounter, tangible issues such as employees' dress and facial appearance do not count during the service. The quality of this voice-based service is purely judged according to the reliability, responsiveness, assurance, and empathy during the service encounter (Malhotra & Mukherjee, 2004). Particularly, call centers play an important role in companies nowadays as they are the important sources of after sales service where the organization's revenue and profit are generated from (Saccani, Songini, & Gaiardelli, 2006). As such, it is indispensable to understand call center attitudes and behaviors in order to heighten their endeavors to render quality service to the client.

### **1.5 Contributions of the study**

This research contributes to the theoretical in several ways. The first contribution of this study is to examine personality traits as a moderating mechanism that affects the relationship between internal service quality and employee's service behaviors in service profit chain model (Heskett et al., 1997). In doing so, expounding the influence of potential moderators can greatly contribute to the understanding of the true relationships between internal service quality and employee's capability in delivering service performance.

Second, drawing on theories of the service profit chain and social exchange theory, the study contributes to the empirical contribution that supports the notion of the theories. For instance, service profit chain depicts the relationship between services and profit as a chain of effects. The theory expresses that business success derives from the performance of the satisfied employees by which internal service quality contributes to employee performance. Accordingly, the current study supports this notion and found that HR practices as well as perceived supervisory support, the proxy of internal service quality, are significant factors in determining employee's performance.

In addition, social exchange theory helps explain the relationships between internal service quality and employees' service recovery performance in the current study. The theory describes that when an individual does a favor to another party, there is an expectation that the recipient will return this favor (Blau, 1964). Given that the significant findings in this study support the notions of the social exchange theory that employees who perceived support from the organization and supervisors will return the supportiveness by their service performance. Thus, the findings also add to the empirical contribution on the social exchange theory.

In terms of managerial implication, the study also provides some useful implications on the actions that organizations can take to manage call centers effectively. First, the significant moderating role of personality traits in the current study provides guidance for managers in recruiting the right people for call center jobs that can reciprocate good service to the organization. Moreover, the human resource department and managers can use the results from the study to identify by which practices that management could employ to enhance the performance of call centers in recovering service failures of the organization as well as the organization's profit and growth.

### **1.6 The Structure of the Study**

Chapter 2, the literature review, provides the theoretical perspective as well as the review of the literature on which this study is founded. Six important literatures are reviewed, which are service profit chain, service recovery performance, social exchange theory, HR practices, perceived supervisory support, and personality traits. The theoretical perspective of service profit chain is the foundation of the current study in framing the conceptual model; whereas social exchange theory helps explain the relationship between internal service quality (HR practices and perceived supervisory support) and employees' service recovery performance. The chapter also explains how personality traits should be considered as the moderator of the model. The review of call center literature is also included and the overview of the conceptual framework of the dissertation is presented on the last part.

Chapter 3 is the proposed model and research hypotheses. In the proposed model, twelve hypotheses were expected to be empirically tested. The chapter presents the development of the proposed model, proposed framework, and the twelve hypotheses. The hypotheses contain of two direct effects and ten moderating effects.

Chapter 4, the research methodology, deals with the methods of research used to test the proposed models and hypotheses in chapters 2 and 3. It includes research design, sample size, scale and measurement development, data collection, and statistical techniques for data analysis in testing hypotheses.

Chapter 5, data analysis, is the discussion of statistical results in testing the proposed model and hypotheses of this current study. The chapter starts with presenting respondents' profiles, and descriptive statistics results. This is followed by the assessment of construct validity and reliability, and the assessment of all regression's assumptions. The results of hypothesis testing and conclusion are summarized in the final section of this chapter.

Chapter 6, the research conclusions and findings are discussed in the last chapter. The theoretical contributions and managerial implications are presented. Lastly, research limitations and recommendations for future studies are provided in the final part of the chapter.

## CHAPTER 2

### REVIEW OF RELATED LITERATURES

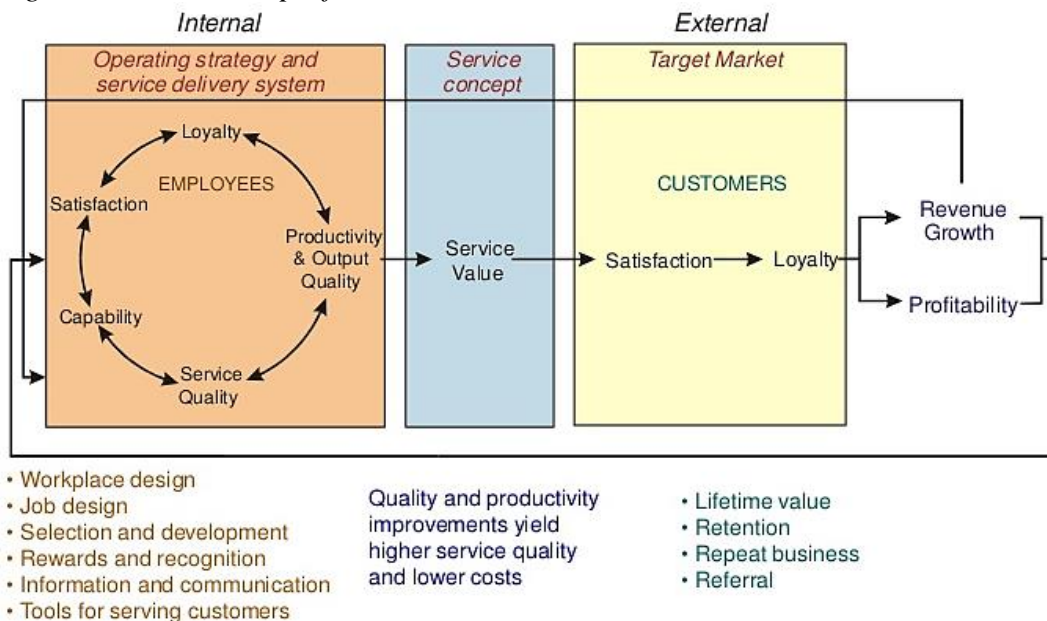
This chapter provides the theoretical perspective as well as the review of the literature on which this study was based. This chapter is divided into eight sections. The first two sections discuss about service profit chain, the theoretical ground of the current study, and service recovery performance, while the third section presents the theoretical perspective of the social exchange theory, the theory underpinning the relationships established for the study's conceptual framework. The two antecedent factors, which are the HR practices and perceived supervisor support, are described in the fourth and fifth sections. The sixth section explains how personality traits should be included in the model, followed by a brief review of the literature about call centers. Lastly, the overview of the conceptual framework of this dissertation is presented in the final section.

#### 2.1 Service Profit Chain

Heskett et al. (1997; 1994) proposed a service profit chain model that explains the organization's performance through the relationship between employees and customers. The model illustrates causal relations between eight important aspects that implicate managers to understand the drivers of business success that can be used to formulate service strategies and improve performance measurement systems. It describes several relationships between organization profits; growth; customer loyalty; employee capability; employee satisfaction; employee loyalty and employee productivity. Figure 2 shows the linkages of the service profit chain model that has been integrated into a large body of prior studies linking individual components together.



Figure 2: The service profit chain



Source: Heskett, Sasser, & Schlesinger, 1997, p. 19

Heskett et al. (1997) depicted the relationship between services and profit as a chain of effects as: profit and growth are stimulated primarily by customer loyalty. Loyalty is a direct result of customer satisfaction. Satisfaction is largely influenced by the value of services provided to customers. Value is created by satisfied, loyal and productive employees and employee satisfaction results primarily from high-quality support services and policies that enable employees to deliver results to customers (1997, p. 11). In particular, researchers have emphasized on the human factor in delivering service value that influences profitability and growth to the organization. They claimed that employee satisfaction is vital because it is the foundation of the cumulative perceptions of service quality and value among the customers. Heskett et al. (1997) inferred the direct relationship between employee satisfaction and customer satisfaction as the “satisfaction mirror”, which conveys that business success derives from employee satisfaction.

Since services are often characterized by an encounter between customer contact employees and customers, employee’s capability and their satisfaction are considered as critical for the company’s future. Employee capability is defined as the extent to

which employees evaluate their ability to satisfy customers (Sergeant & Frenkel, 2000). Heskett et al. (1997) proposed that employees who are happy and satisfied with their working environment are more likely to perform better; consequently increasing in customer satisfaction and loyalty, and in turn induce a better financial performance. A number of empirical studies supported that service quality provided by service employees is directly linked to the business performance (Chang & Chen, 1996; Chi & Gursoy, 2009; Hong et al., 2013; Roth & Jackson III, 1995; Zeithaml, Berry, & Parasuraman, 1996).

As the role of the service employees seems to be essential for business performance, companies are required to allocate a significant resources as well as supportive working environment that gain leverage in hiring and retaining these valuable human resources. Heskett et al. (1997) referred supportive working environment as “internal quality of a working environment” or “internal service quality” that contributes to employee satisfaction. It is characterized by the attitudes and the feelings that employees have toward their jobs, colleagues, companies, and the way people serve each other inside the organization. Lau (2000) defined internal service quality as the favorable conditions and environments of a workplace that support and promote employee satisfaction.

Sirgy et al. (2001) argued that employees strive to fulfill several needs at work and management should provide environments that satisfy those needs. The needs include health and safety needs (need for protection from possible injury or mental harm), job requirements (e.g. need for recognition and appraisals through job characteristics and need for a reasonable workload), supervisory behavior (e.g. need for interpersonal interaction among employees, employers, colleagues, and customers), and ancillary programs (e.g. need for training and flexible work schedules). To gain competitive advantage, several researchers agreed that organizations should focus on providing supportive environments that satisfy those needs and requirements of their employees for gaining more customer satisfaction (Hallowell et al., 1996; Lau, 2000; Nazeer, Zahid, & Azeem, 2014; Schneider & Bowen, 1993; Sirgy et al., 2001).

The outcomes of internal service quality have been supported by a number of previous research studies, including improved employee satisfaction (Hallowell et al., 1996; J.-S. Lee, Back, & Chan, 2015), reduced absenteeism (Isabelle, Dupuis, & Fleet, 2015), lower turnover (Havlovic, 1991), increase customer satisfaction (Hallowell et al., 1996), and induce company's growth and profitability (Lau, 2000). To promote supportive environment, Hallowell et al. (1996) listed the key components of internal service quality including all necessary practices provided to the employee by the organization to serve customer such as tools, policies and procedures, teamwork, management support, goal alignment, effective training, communication, and rewards and recognition.

Previous empirical studies on SPC have been varied. Number of SPC research studied the relationship between employee satisfaction, customer satisfaction, and organizational performance as the holistic model (Hallowell et al., 1996; Kamakura, Mittal, Rosa, & Mazzon, 2002; Silvestro & Cross, 2000); whereas in most empirical studies, they investigated on its specific links in isolation (Bouranta, Chitiris, & Paravantis, 2009; Chi & Gursoy, 2009; Gelade & Young, 2005; Salanova, Agut, & Peiró, 2005). For example, Salanova et al. (2005) applied the service profit chain model to the hotel and restaurant industry. They tested the links between organizational resources and work engagement with employee performance and customer loyalty. Gelade and Young (2005) examined the relationship between organization climate, employee commitment, customer satisfaction, and sales performance by applying the part of SPC model to the retail-banking sector. Chi and Gursy (2009) studied the satisfaction mirror of the service profit chain model in hospitality companies. Bouranta et al. (2009) provided experimental evidence supporting the relationship between internal and external service qualities in restaurant industry.

The implication of the service profit chain model has been acknowledged in many of management studies; however, these mixed empirical studies that attempt to explain the causal relationship between aspects provided different results. For instance, Silvestro and Cross (2000) applied service profit chain model and comprehensively

tested each linkage in the model to a single service organization, UK grocery retailers. The results showed correlations between internal service quality, employee output quality and productivity, service value, customer satisfaction, customer loyalty, and profitability; however, there was no support for the claim that employee satisfaction and loyalty driven the chain effect in the model.

Later, several primary studies have started to examine the moderators that affect the variance into the relationship between aspects in service profit chain (Hong et al., 2013; Kamakura et al., 2002; Mayer et al., 2009; Schneider et al., 2002). For instance, Kamakura et al.(2002) examined the nature of each link in service profit chain comprehensively from a national bank in Brazil. Their analysis concluded that for an organization to achieve superior profitability, superior satisfaction alone is not an unconditional guarantee of profitability. In fact, the study showed the moderating effect of operational efficiency, the efficiency in allocating the firm's resources to service customers, toward the relationship between customer satisfaction and firm's profitability. Recently, Hong et al. (2013) conducted meta-analysis testing the comprehensive model of service profit chain showing the significant relationships between internal service quality, employee satisfaction, employee commitment, service performance, customer satisfaction, and financial performance. Particularly, the study provided compelling evidence illustrated the moderating role of service types on the relationship between internal service quality and service outcomes. Moreover, researchers have encouraged more attention to examine the potential moderators such as personal disposition or personality traits that could affect the relationship between aspects in service profit chain model. It is suggested that by examining certain moderators, it could greatly contribute to the understanding of the mixed and inconsistent findings from prior studies(Hong et al., 2013; Kamakura et al., 2002).

Based on service profit chain model (Heskett et al., 1997), internal quality of working environment or internal service quality is claimed as the important antecedents of business performance(Hallowell et al., 1996; Lau, 2000; J.-S. Lee et al., 2015). As mentioned earlier, internal service quality refers to the favorable conditions and

environments of a workplace that support and promote employee satisfaction(Lau, 2000). The key elements of internal service quality were the perception of the employee toward their organization and these perceptions governed their attitudes and capability (Heskett et al., 1997). The internal service quality dimensions include management support, job security, better reward systems, higher pay, opportunity for growth, and participative groups, among others(Hallowell et al., 1996). Prior researchers argued that such internal service quality dimensions reflected some aspects of human resource management and supervisory behaviors (Hong et al., 2013; Lau, 2000; Schneider, White , & Paul, 1998; Sergeant & Frenkel, 2000).

Following early studies, HR practices and supervisory support are considered as the important proxies of internal service quality that influence employees' service behaviors. Management invests in people and technology that supports frontline employees to deliver quality service to satisfy the customers. The investment required to change customers from neutral to completely satisfied customer as they are the key to securing customer loyalty and generating superior long-term financial performance (Heskett et al., 1997). However, firms still lose customers primarily because of poor service (Elmadag et al., 2008). Service failure and recovery encounters are critical to the customer retention(A. K. Smith & Bolton, 2002). This is because during the service recovery period, customers are more emotionally involved than during routine service (Yavas et al., 2010).

Figure 3 illustrated the positive relationship between the level of customer satisfaction and their loyalty. The completely satisfied customers show the highest level of customer loyalty. Organization should ensure that neutral and satisfied customers do not fall into the dissatisfied realm. There is a possibility that highly dissatisfied customers typically involve customers who are highly satisfied until they experienced and suffered from the service failure. Consequently, if a company responsively attend to the service recovery process that help the customer get back on track if failure occur, customers' faith in the company is deepened and they become apostles that spreading good word to other potential customers(Jones & Sasser, 1995).



Figure 3: A Satisfied Customer Is Loyal by Heskett et al. (1994)

According to service profit chain model, Heskett et al. (1997) stated that when the company provide effective service recovery, the stream of company income over the lifetime of a customer relationship often can be several times greater than the cost of handling complaints and customer dissatisfaction. In particular, the total customer satisfaction can be achieved without the perfect design and delivery of services but it required the capability of the service employees to recover from poor service incidents. To prevent and solve service failure, it is important to learn what influences employees' attitudes and behaviors in delivering service recovery (Schultz, 2002). While most of the prior studies pay attention to the factors that influence customer satisfaction from neutral to satisfaction level (Gelade & Young, 2005; Hong et al., 2013; H. Liao & Chuang, 2004; Sutherland, De Bruin, & Crous, 2007); the current study focus on how the organization can track back the dissatisfied customers to the satisfy level by the effective service recovery performance delivered by service employees.

## 2.2 Service Recovery Performance

The concept of service recovery has received great attention from scholars. It was first conceptualized in marketing literature and then moved to other literatures such as in operation and management. The primary concern of service recovery in marketing view was about recovering service failures, and how this process affects customer satisfaction. The inclusion of service recovery performance in management and human resource perspective came after it has been found that employee characteristics affect the delivery of service recovery. Although the concept has been discussed for over 20 years, scholars argued that the service recovery concept still remains understudied, thus a call for more studies has been encouraged (Michel, Bowen, & Johnston, 2009; Van Vaerenbergh et al., 2014). This study is a response to that call by focusing its investigation to the potential factors that influence service recovery performance. The concept of service recovery is discussed in the following sections based on three discipline-grounded perspectives, which are the marketing, operations, and management.

In marketing literature, Grönroos (1988) was cited as the initiator who defined service recovery as “actions a service provider takes in response to service failure (p. 11).” Most of the focus on marketing research is to identify what determines customer satisfaction after they experience service failure (Michel et al., 2009). Two fundamental drivers for service recovery effectiveness are (1) fairness of treatment, and (2) repeated failure. Customer perception of being treated fairly is a significant factor for service recovery. This fairness of treatment includes perceived justice in distributive, procedural, and interactional processes provided by the firm (Orshingher et al., 2010). Distributive justice is an outcome justice that focuses on equity issues between costs and benefits in the mind of the customers (Bowen & Ostroff, 2004). Customers may expect an outcome such as an apology, a refund, or compensation as a return for recovery. Procedural justice refers to the process of fairness such as the speed of recovery or the information about the recovery process that customers would experience (Seiders & Berry, 1998). Lastly, interactional justice is often referred to as

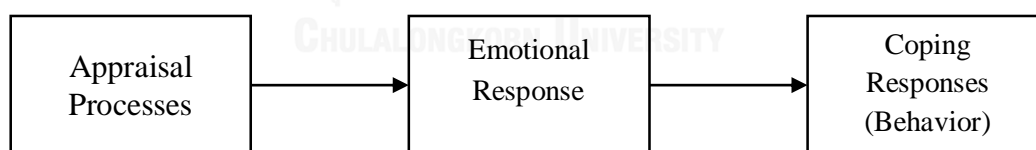
the quality of the interpersonal treatment customers receive when recovery procedures are implemented (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). But among all of these treatments, an effective service recovery only occurs at one failure and not after a second failure (Maxham III & Netemeyer, 2002). This means to say that it is important for companies to delight dissatisfied customer within the first initial failure as the second failure may lead to total dissatisfaction. A meta-analysis study stressed the importance of service recovery as a crucial success factor for organizations. For instance, moderate to high level service recovery efforts from contact employees significantly increased customer satisfaction (Augusto de Matos, Henrique, & Rossi, 2007), purchase intention (H. Liao, 2007; Maxham, 2001), positive word-of-mouth (Orshingher et al., 2010), and customer loyalty (Ruyter & Wetzels, 2000).

The service recovery processes and how to learn from failures were also extensively discussed in operations literature (Michel et al., 2009). Service recovery in operations perspective refers to as “the actions were undertaken by service providers to address service failures and the set of processes that firms employ in the attempt to provide a remedy for those failures (Battaglia, Borchardt, Sellitto, & Pereira, 2012, p. 951).” Johnston (2001) stressed that it is more important to learn from failure than simply recover individual customers. Collecting and analyzing failure data represents the most significant means to improve the service process. Existing literature proposed several methods to detect service failures, namely total quality management (TQM), mystery shoppers, and customer surveys. Moreover, improvement techniques, such as the Frequency-Relevancy Analysis of Complaints (FRAC), Sequence-Oriented Problem Identification, or Fishbone diagrams have been acknowledged as tools that help identify main causes of the problem. Hence, by identifying the main causes, management can focus on developing an action plan to improve the service recovery process (Michel et al., 2009).

Researchers agree that frontline employees play a crucial role in the service recovery process as their performance is the critical component in service recovery and to the organization’s reputation (Babakus et al., 2003; Christo Boshoff & Allen, 2000; Yavas, Karatepe, Avci, & Tekinkus, 2003). As service employees such as call centers agents



are the first port to receive complaints from customers, they are supposed to deliver the most effective service recovery response. As such, service recovery in management disciplines mostly focuses on employees, concerning on how to prepare them to perform well in the service recovery process (Van Vaerenbergh et al., 2014). Babakus et al. (2003) defined service recovery as employees' perceptions of their abilities and actions to resolve a service failure to the customer's satisfaction. Several scholars have followed Babakus et al.'s (2003) research model in exploring the antecedents and outcomes of service recovery performance. The model derived from Bagozzi's reformulation of attitude theory argues that individual's actions or behaviors result from their attitudes, subjective norms, and self-regulating process. Bagozzi (1992) proposed that self-regulation process is the key that govern behaviors. The process includes distinct sequences of monitoring and evaluating outcomes from past experiences, putting emotional reactions to the appraisal outcomes, identifying a coping response or choosing the behavior that attain the favorable outcomes. In other words, cognitive evaluations of outcomes precede affective reactions and these affective responses direct individual behavior. Figure 4 illustrates the Bagozzi's (1992) self-regulation process model employed by past scholars exploring the antecedents of service recovery performance.



*Figure 4: The self-regulation process model (Bagozzi, 1992)*

Recently, a meta-analysis conducted by Van Vaerenbergh et al. (2014) summarized the antecedents of service recovery performance which had been explored by previous scholars. The antecedents include burnout, organizational supports, and personality traits. First, job burnout (e.g. emotional exhaustion, depersonalization) has been indicated as the factor that hinders employees' service recovery performance. Job burnout is a form of psychological strain that most of the frontline employees often

suffer from (Singh, 2000). It usually results from chronic work stress (Bakker, Demerouti, & Verbeke, 2004) and is characterized by emotional exhaustion and depersonalization (also known as disengagement from work). Depersonalization is manifested when employees detach themselves from work and become uncaring towards the customers, treating them as objects rather than persons (Rod & Ashill, 2009). There are some empirical evidence showing that job burnout symptoms lead to undesirable outcomes such as reduction in job performance as well as reduced service recovery performance among the employees (N. Ashill et al., 2009; Rod & Ashill, 2009; Van Vaerenbergh et al., 2014).

Next, organizational supports was also indicated as the antecedents of service recovery performance (Van Vaerenbergh et al., 2014). Numbers of empirical study have established that HR practices and supervisory support, the proxy of internal service quality, influence employees' service recovery performance (N. J. Ashill et al., 2005; Christo Boshoff & Allen, 2000; Karatepe, 2006; Masoud & Hmeidan, 2013; Orshingher et al., 2010; Rod et al., 2006). For instance, Boshoff and Allen (2000) found that empowerment and rewards significantly relate to service recovery performance; whereas Orshingher et al. (2010) found that only empowerment influence employees' service recovery performance. More recently, Masoud and Hmeidan (2013) explored the influence of internal service quality such as training, empowerment, rewards, supervisor support, and service technology toward service recovery performance. The findings showed that all dimensions significantly predict employees' service recovery performance.

Personality traits were also criticized as the predictors of performance that explained the performance variances among employees (Salgado, 1997). Personality traits are considered as the characteristics of a person that result in consistent patterns of behavior across time and situations (Hogan et al., 2001). Typical traits that were examined in the service recovery literature and considered as influential factor towards recovery behavior are trait competitiveness (Karatepe, 2006), job resourcefulness (N. Ashill et al., 2009; Rod & Ashill, 2009), intrinsic motivation (Yavas et al., 2010), customer orientation (Kim, Peak, Choi, & Lee, 2012), and emotional intelligence (J.-H. Lee, Kim,

& Jeon, 2013). Recently, a meta-analysis has re-examined the influence of personality traits toward service recovery performance. The findings indicated that personality traits have a strong influence on service recovery performance than other factors such as job burnout or management supports (Van Vaerenbergh et al., 2014). The link between personality traits and performance has long received attention from scholars (Sawyer, Srinivas, & Wang, 2009); however few studies have explored the influence of personality traits toward service recovery performance (Rod & Ashill, 2009). As such, researchers had called for more studies that examine additional personality traits as antecedents of service recovery performance (N. Ashill et al., 2009; J. S. Smith et al., 2010; Van Vaerenbergh et al., 2014; Yavas et al., 2010).

Unfortunately, the findings of the prior study reported mixed results with regards to the antecedents of service recovery performance. For instance, Boshoff and Allen (2000) found a significant effect of empowerment and rewards on service recovery performance; whereas Rod et al. (2006) and Kim et al. (2012) failed to replicate the similar effect. These inconsistent findings create suspicion and require further study to sharpen the understanding of what factor influence employees' service recovery performance (Van Vaerenbergh et al., 2014). Prior studies had called for more research in service recovery performance in order to gain more knowledge about this research domain (N. J. Ashill, Carruthers, & Krisjanous, 2006; Masdek et al., 2011; Michel et al., 2009; Van Vaerenbergh et al., 2014). Therefore, the current study responded to the calls and reaffirmed on investigating the potential factors (i.e. internal service quality and personality traits) that influence employees' service recovery performance.

In order to understand the factors that influence employees' attitudes and behaviors in delivering service recovery, the current study built on previous research and applied profit service chain model as the theoretical backdrop to explain the influence of internal service quality toward employees' service recovery performance. Based on Heskett et al.'s concept (1997) and the empirical evidence, HR practices and supervisory support were applied as the proxy of internal service quality; while service

recovery performance was considered as employee capability in service profit chain model in which, it is expected that both dimensions will positively related to employees' service recovery performance. Additionally, in response to the call of prior research, personality traits were added into the model as the moderating variable of service recovery performance based on empirical studies that show personality traits influence employees' performance. It is aimed to examine the influential factors such as HR practices, supervisory support and personality traits that could impact employees' dedication to perform service recovery.

The next section describes social exchange theory that was employed as the theory underpinning the relationships between internal service quality and employees' service recovery performance in this current study. The explanation and validation of the influential factors (HR practices, perceived supervisory support, and personality traits) and its relationships are described respectively in the following section.

### **2.3 Social Exchange Theory**

The relationships between variables in the current study are explained based on "social exchange theory." The theory provides an explanatory framework to clarify how employee perceptions of HR practices and supervisory support, the proxy of internal service quality, influence their service recovery performance. Social exchange theory posits that when an individual does a favor to another party, there is an expectation of some future return (Blau, 1964). It is one of the major theoretical perspectives of the social psychological field that is based on earlier philosophical and psychological orientations that stem from utilitarianism and behaviorism (Cook & Rice, 2003). The roots of the theory can be traced back to at least the 1920s linking several disciplines such as anthropology, social psychology and sociology. Homans (1958) was cited as the first one who introduced the concept of exchange in which the exchange takes place between goods and values that are framed based on rewards and punishment. He

defined social exchange as “the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons (Homans, 1958, p. 13).”

Later, Blau (Blau, 1964) also framed exchange theory in terms of rewards and costs. Similar to Homans(1958), Blau was interested in analyzing the processes that guide face-to-face interaction. However, the differences between the two exchange theorists are obvious. While Homans emphasized on exchange base on behaviorist principles, Blau sought to analyze the social interaction between individual and organization. He emphasized more on economic and utilitarian view of behavior unlike Homans, who built the concept upon reinforcement principles. Cropanzano and Mitchell (2005) made a great contribution to the literature by providing an interdisciplinary review of social exchange theory. They outlined the problem of conceptual difficulties, and the theory has not been fully identified. Due to the ambiguity of some formulations of the theory, it leads to multiple interpretations and it was difficult to test. Moreover, they also stressed the problem of theoretical ambiguities and called for more empirical testing.

Based on Cropanzano and Mitchell (2005) study, three foundational ideas of social exchange theory’s explanatory power have been raised: (a) norms and rules of exchange, and (b) nature of the resources being exchanged, and (c) social exchange relationships. The current study reviews the literature following idea of Cropanzano and Mitchell, which is discussed in the following section.

### *Rules and Norms of Exchange*

The basic tenet of social exchange theory is the ‘reciprocity norm,’ which is the belief that when a person or entity makes any favor to others, these recipients will feel a sense of obligation to reciprocate the favor. Reciprocity is also known as ‘exchange rule’ that can be distinguished into three different types of reciprocity:

- (1) Reciprocity as a transactional pattern of interdependent exchanges – this exchange requires a bi-directional transaction that involves mutual and

complementary arrangement between parties whereby an action by one party leads to a response by another;

- (2) Reciprocity as a folk belief – it involves the cultural expectation that people get what they deserve (i.e. belief in universal justice or karma). In this transaction, participants accepted some combination of (a) exchange lines with a sense of fair equilibrium, (b) those who are unhelpful will be punished, and (c) those who are helpful will receive help in the future; and
- (3) Reciprocity as a norm and individual orientation – exchange norm occurs because of cultural mandate or norm are a standard that describes how one should/ought to behave, and those who follow these norms are obligated to behave reciprocally (Gouldner, 1960).

The use of social exchange theory in most of the research in management and organizational behavior studies are framed on the basis of rules and norms of exchange (Cropanzano & Mitchell, 2005). This exchange norm can be traced from the writings of Barnard (1938) and March and Simon (1958) that devoted their time to study employee-organization relationship. Barnard's equilibrium theory (1938) suggested that the participation of employees depends upon the adequate rewards provided from the organization. March and Simon's model (1958), inducements-contributions model, argued that employees are satisfied when the inducements offered by the organization is greater than the contributions they need to give in return. Later, Gouldner (Gouldner, 1960) contributed to the norms of exchange by identifying the nature of reciprocation and classified the norm into two forms: one is homeomorphic reciprocity, in which the repayment is identical in form or circumstance, and another is heteromorphic reciprocity, in which the repayment could be concretely different in form but equal value as perceived by both parties. Although reciprocity is considered as a human universal, not all individuals' value reciprocity to the same degree. The variance of felt obligation of repayment exists upon the recipient's evaluation of the benefits they received, such that the more valuable these are the stronger the perceived obligation to

reciprocate (Gouldner, 1960). There is strong evidence supporting the notion that individually the degree to support reciprocity differs considerably (Clark & Mills, 1979; Murstein & MacDonald, 1977; Shore & Coyle-Shapiro, 2003).

Organizational researchers investigated individual differences in reciprocity level via the concept of “exchange orientation” or “exchange ideology.” The concept stressed that individuals vary in the degree of their belief in reciprocity. Specifically, individuals with a strong exchange ideology are more likely to put their effort toward other individuals or the organization and would expect the other to return a good deed than those who are low in exchange ideology (Andrews, Witt, & Kacmar, 2003; Ladd & Henry, 2000). Based on the social exchange theory framework, Eisenberger et al. (1986) developed and applied exchange ideology construct to the relationship between individuals and their organization. The researchers argued that those with a strong exchange ideology would be expected to respond in a manner consistent with social exchange theory, but their attitudes and behaviors may alter according to how they are being treated by others. Up to this point, the question arises to what kind of treatment would create the norm for reciprocation or what resources that individuals would exchange.

#### *The nature of the resources being exchanged*

The resources on the nature of social exchange theory originated from anthropology study. Based on resource theory, Foa and Foa (1980) defined resources as “anything that can be transmitted from one person to another” (p. 78). They suggested six types of resources that would be exchanged when there is an interpersonal encounter, namely: love, status, information, money, goods, and services. “Love” is an expression of affectionate regard, warmth, or comfort. “Status” indicates an evaluative judgment that conveys prestige, regard, or esteem. “Information” includes advice, opinions, instruction, or enlightenment. “Money” is any coin, currency, or token that has some standard unit of exchange value. “Goods” are tangible products, objects, or materials. Lastly, “Service” involves activities that affect the body or belongings of a person and

that often constitute labor for another. These resources collapsed into two forms of exchange outcomes. One is the economic outcome (outcomes that are tangible and mostly address in financial needs); another is a socio-emotional/interpersonal outcome that often addresses as social and self-esteem needs (Cropanzano & Mitchell, 2005). Although resources can be classified into different types, however, individuals do not always reciprocate into exact resources they received from the target. As reciprocal exchanges engage voluntarily without specific assigned task on what should be transacted, the successful exchange may depend on the interpersonal relationship between parties (Mitchell, Cropanzano, & Quisenberry, 2012). On this basis, when organization provide resources either economic outcomes or socio-emotional outcomes to their employees, it is expected that employees will reciprocal their organization with service performance.

#### *The relationships of social exchange*

Blau (1964) viewed social exchange as processes of social association underlying the relationships between groups and individuals. Blau defined social exchange as “the voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others” (1964, p. 91). His framework was mostly used to describe social exchange relationships. Blau’s great contribution was the comparison between economic exchange and social exchange. The key differences between these exchanges entail in specified and unspecified obligations. He argued that only social exchange involves some favors that would create future obligations and these returns cannot be bargained. Economic exchange refers to a shorter term, quid pro quo, and involves weaker interpersonal attachments; in the opposite, social exchange relationships are longer term, more open-ended, and associated with stronger interpersonal attachments (Mitchell et al., 2012). Moreover, social exchange tends to generate feelings of personal obligations, gratitude, and trust that implies an enduring social pattern while purely economic exchange does not (Blau, 1964).



Regarding social exchange, the researcher outlined exchange relations as causally related. Blau (1964) argued that the character of the relationship between exchange partners might affect the process of social exchange. In other words, the relationship between partners influences the type of exchange. However, the direction of causal relation is still unclear. Imbalances of rewards and costs often pervade exchange relations. Moreover, Blau (1964) argued that the roles of power, inequality, and norms of legitimation also interest in the exchange relationship such as an exchange relationship in work settings. He believed that inequality and power distributions were emergent properties of ongoing relations of social exchange due to some actors control resources more highly than others do. Workers can form distinguishable social exchange relationships with their immediate supervisor, employing organizations, customers, and suppliers. These distinct relationships have implications for behavior. Specifically, employees/individuals may return the benefits with different level of goodwill and helpfulness toward different parties whom they have a social exchange relationship with (Cropanzano & Mitchell, 2005).

Within management research, most of the research attention has been placed on the notion of workplace relationships. Blau (1964) indicated that the social exchanges are 'voluntary actions' that initiated how organizations treat their employees. Accordingly, HR practices could serve as a way for organizations to show their concern, support, or commitment to their employees in order to foster performance and reciprocal attachment (Eisenberger et al., 1986). As such, based on norm of reciprocity (Gouldner, 1960) and social exchange theory (Blau, 1964), employee would return the organization deed with their behaviors. When employees perceived that the organization invests in human resources management, they will feel that the organization values and cares about their well-being and contributions which will influence their attitudes and behavior that benefit the organization (Gilbert et al., 2011). However, the sense of indebtedness or mutual obligations between the organization and employees will be reduced if the organization fails to deliver any promises or practices (Gould-Williams, 2003). Moreover, several researchers agreed that top management leadership and its vision is a prerequisite for service quality and any quality improvement activities

(Babakus et al., 2003; Christo & Allen 2000; Sureshchandar, Rajendran, & Anantharaman, 2002). Management practices critically affect the excellence of the delivered service and the lack of this bond may lead to service failure (C. Boshoff & Tait 1996; Hartline & Ferrell, 1996; Reeves & Hoy, 1993).

#### **2.4 Human Resources Management (HR practices)**

Drawing on the empirical evidence, the current study indicates HR practices as the proxy of internal service quality in service profit chain model that influence employees' service performance, in turn lead to organization's growth and profitability (Heskett et al., 1997). Human resource is considered as a crucial mechanism that develops and sustains competitive advantage for the firms (Prahalad & Hamel, 1990). In over the last 20 years, most of the research in human resources management (HRM) have been devoted in linking HR practices and organizational performance (Cooke, 2001 ; Wright & Kehoe, 2008) (i.e. stock performance, productivity, profits quality and organizational survival)(B. Becker & Gerhart, 1996), employees' commitment improvement, absenteeism and turnover reduction (Huselid, 1995), and enhancement in the skills level (Katou & Budhwar, 2006). Especially in a service industry such as call centers, HR practices are crucial toward customer perception in service quality(Little & Dean, 2006; Schneider & Bowen, 1993).

Human resources management (HRM) is a set of policies designed to maximize organizational integration, employee commitment, flexibility and quality of work(Guest, 1987). Boxall and Purcell (2000) defined human resources management in a broad view as "HRM includes anything and everything associated with the management of employment relations in the firm" (p. 184). Moreover, Armstrong (2009) referred human resource management as a strategic, integrated and coherent approach to the employment, development, and well-being of the people working in the organizations. The practice of HRM is concerned with all aspects of how people are employed and managed in organizations. It is a combination of multiple management

activities or practices influencing employee and organizational outcomes such as performance and organization commitment(Conway, 2004). HR practices are also known as high-performance work practices (HPWPs) (Huselid, 1995), high-commitment management(Wood, 1999), or best practices in strategic management discipline(B. Becker & Gerhart, 1996).

“Building profits by putting people first” is the most popular notion of high commitment HRM proposed by Pfeffer and Veiga (1999) who initially identified 16 practices which later refined into seven best practices in achieving competitive advantage through human resources. These seven practices include: (1) providing employment security, (2) selective hiring, (3) extensive training, (4) self-managed teams and decentralization, (5) high compensation based on company performance, (6) sharing information, and (7) reduction of status differences (Pfeffer & Veiga, 1999).

Since the early studies of human resource practices, some researchers attempted to uncover a single universal best practice that influence employees’ behaviors (Delery, 1998). More recently however, research results stressed that what is important in today’s human resource management is to carry out a synergistic approach in multiple human resource practices(Combs, Liu, Hall, & Ketchen, 2006; Whitener, 2001). These activities include recruitment and selection, training and development, performance management, teamwork, performance-related pay, employment security, participation and communication(Van De Voorde, Paauwe, & Veldhoven, 2012). Although there is no consensus towards what constitutes HRM(Cooke, 2001 ), HR practices are broadly based on three important components: organization provides employees opportunities to participate, development of required skills, and delivers performance-based incentives that encourage their motivation(Appelbaum, Bailey, Berg, & Kalleberg, 2001; Combs et al., 2006; Cooke, 2001 ).

Parallel to the recent in-depth review by Wright and Kehoe(2008), they identified three common dimensions in human resource systems from strategic HRM researchers. The first dimension is the degree of investment in HR practices that intended to improve the

knowledge, skills and abilities of the companies' employees. These practices include recruiting, selection, training, or any other practice functioning to enhance the competencies of the employees. The second dimension is the degree of investment in HR practices that motivate employee effective behavior. These include formal performance appraisals, compensation, and promotion. These practices are seeking to obtain task-related behavior, exhibit discretionary behavior (such as organization citizenship behavior), or to discourage counterproductive behavior (i.e. theft, sabotage, etc.) that may negatively impact the organization. The last dimension is the practice that functions to empowerment, which provides employees opportunities to participate in decision-making process in the organization(Wright & Kehoe, 2008).

All three dimensions above reflect some components in seven best practices proposed by Pfeffer and Veiga (1999). Several researchers emphasized the synergy among the practices that this collective effect will be greater than individual practice (Admad & Schroeder, 2003; Combs et al., 2006; Delery, 1998; Guerrero & Barraud-Didier, 2004; Huselid, 1995). For example, Wall and Wood (2005) clarified that selecting able people without training, or training them but not empowering them will have a little effect than implementing all three practices altogether. Likewise, some researchers asserted that these HR practices develop and sustain employees' knowledge, skills, and abilities (KSAs), empower employees to leverage their KSAs for the benefit of the organization, and increase their motivation to do so will influence effectiveness(B. E. Becker, Huselid, Pickus, & Spratt, 1997). Combs et al.'s (2006)meta-analysis supported this argument that the relationship between HR practices and performance is stronger when it measures the HR system rather than the individual practices (p. 513).

#### *2.4.1 The direct relation between HR practices and service recovery performance*

Social exchange theory depicts that when one person does a favor to others, there is an expectation for the recipients to return this favor to the sender (Blau, 1964). Eisenberger et al. (1990) argued that the process of social exchange is initiated by which the organization value their employees via the policies and practices that contribute to the

well-being of the employees. On this basis, where organizations provide their employees with positive treatment such as HR practices, this engenders an obligation on the part of employees to reciprocate these treatment with positive work attitudes and behaviors. Number of prior studies support this notion and using social exchange theory to predict the effects of HR practices on employee's performance (Gould-Williams, 2007; Gould-Williams & Davies, 2005; Nishii et al., 2008; Zhang & Jia, 2010). For instance, Gould-Williams and Davies (2007) empirically tested the effects of exchange relationships between managers and public sector employees working in local government departments. The findings were consistent with social exchange theory indicated that HR practices predict three positive outcomes, namely employee commitment, employee motivation, and employee desire to remain with the organization. Nishii et al. (2008) also used the foundation of social exchange theory to examining underlying mechanisms linking the relationship between HR practices and employee attitudes and behaviors.

A closer investigation of both service recovery performance and service quality literature outline a number of potential indicators for management support. This includes recruitment and selection, training, empowerment, rewards, and perceived organizational support etc.(N. J. Ashill et al., 2008; Babakus et al., 2003; Kim, Tavitiyaman, & Kim, 2009). These indicators reflect HR practices in HRM literature(Karatepe & Karadas, 2012). Literatures with regard to the relationship between HR practices and organizational performance are well documented. It has been demonstrated that HR practices are significantly related to a number of firm performance such as financial performance and operational performance (Admad & Schroeder, 2003; Combs et al., 2006; Huselid, 1995). A number of empirical studies have confirmed the linkage by investigating the relationship between HRM and performance (Akdere, 2009; Gerhart, Wright, & McMahan, 2000; Gould-Williams, 2003; Katou & Budhwar, 2006). For instance, Katou and Budhwar (2006) found a positive impact of HRM systems toward organizational performance. In the study of Akdere (2009), the findings also supported the relationship between the system of HR

practices and organizational performance outcomes such as employee satisfaction, customer satisfaction, and profit.

Particularly, the linkage between HR practices and employees' service recovery performance has also received an attention from scholars. For example, Boshoff and Allen (2000) investigated the linkage between perception of management support (i.e. rewards/ recognitions, training, empowerment, teamwork etc.) and service recovery performance, and found that rewards/recognition and training positively influenced employees' service recovery performance. However, Yavas et al.,(2003) and Ashill et al. (2005)failed to replicate the same findings. Yavas et al. (2003)found that only empowerment influence service recovery performance whereas Ashill et al. (2005) found that empowerment and teamwork positively influenced employees' performance in recovering service failure.

Karatepe and Karadas (2012) also reported the findings differently from prior studies. Their findings revealed that empowerment and rewards enhance employees' service performance. They argued that unsupported result between training and employees' performance may be due to the training programs that emphasized only on technical skills and overlooked listening and problem-solving skills, which are critical in providing quality service to the customer. Moreover, employees' perceptions of training, empowerment, and rewards may also vary according to the organizational and group level hence, researchers call for more future research assessing this similar study but in different contexts (Karatepe & Karadas, 2012, p. 631). In contrast, Masoud and Hmeidan (2013) recently investigated service recovery performance model and their findings indicated that all management support factors or internal service quality (i.e. training, empowerment, rewards/ recognition, supervisor support, and service technology support) enhance employees' service recovery performance.

As mentioned earlier, these management support factors reflect HR practices (Karatepe & Karadas, 2012) and prior studies emphasized the synergy among the practices rather than individual practice (Admad & Schroeder, 2003; Combs et al., 2006; Delery, 1998;

Guerrero & Barraud-Didier, 2004; Huselid, 1995). Few studies have investigated the collective effect among these management supports toward service recovery performance. Karatepe et al.(2014) argued that there is still a lack of empirical study considering joint effects of HR practices on employees' performance. To fulfill this research gap, this current study employed and investigated the collective effects of HR practices on employees' service recovery performance. It is expected that HR practices have a significant positive effect towards employees' service recovery performance.

## **2.5 Perceived Supervisory Support**

Drawing on service profit chain model (1997) and past research evidence, the current study also specifies supervisory support as another proxy of internal service quality that influence employee's performance. Perceived supervisor support (PSS) is a general view of the employees with regard to the degree into which their supervisors value their contributions, and care about their well-being (Kottke & Sharafinski, 1988). Similarly, Babin and Boles(1996) defined supervisory support as the degree of the employees' perception towards their supervisors when it comes to the support, encouragement and concern given to them. Recently, Choi et al. (2012)referred supervisor support as the extent into which customer service representatives or call centers perceive their supervisor's interest in their well-being and job performance. Based on the notion of service profit chain model, Heskett et al. (1997)disputed that internal service quality influence employee productivity. One important source of internal service quality comes from supervisors, who play a key role in communicating and ensuring quality in employee service delivery.

The support that emanates from supervisors towards customer orientation and employee orientation is considered to be the important characteristic that is commonly shared by best practices service firms such as Ritz Carlton Hotels and Resorts, FedEx, Walt Disney, Nordstrom, Southwest Airline and Singapore Airline (Solnet & Kandampully, 2008). Supervisor support is one of the main components of social support. Social support is a multidimensional concept containing variables such as

organizational support, supervisor support, support from co-workers, and support from customers. Most of the researchers focused on supervisor support due to the fact that supervisors play a particularly important role in the organization. For instance, the role of supervisors in call centers includes coaching, monitoring, and assessing the agents that would directly affect their working behaviors(Choi et al., 2012). Furthermore, these supportive management practices are expected to influence strong and positive feelings among the personnel's well-being as well as their work attitudes and behaviors(Ng & Sorensen, 2008).

As described in previous studies, supervisor is the most salient, tangible representative of management actions, policies, and procedures; as such the nature and quality of interactions between employees and supervisors may be a key filter in the interpretation for the employees perception of the internal service quality(Babin & Boles, 1996; Choi et al., 2012; Heskett et al., 1997; Sergeant & Frenkel, 2000). There are number of ways in which supervisors could facilitate to their employees by providing key resources (i.e. equipment and training), using results orientation (i.e. consideration and feedback), and providing emotional support in the form of sympathy, caring, comfort, and encouragement that facilitates employees' attachment to organizations (Babin & Boles, 1996; Ng & Sorensen, 2008). Furthermore, supervisors could show their personal consideration by asking their subordinates how they can help to do their job better or instill fair methods (Maertz, Griffeth, Campbell, & Allen 2007). As a result, when employees perceived such support, they are likely to elicit positive feelings and trust toward their supervisor.

### *2.5.1 The direct relationship between perceived supervisory support and service recovery performance*

Based on social exchange theory, Eisenberger et al. (1986)concluded that perceived organizational support is assumed to increase employee's expectation that performing greater efforts to meet organizational goals will accordingly be rewarded. A meta-analysis conducted by Rhoades and Eisenberger (2002) summarized three factors



affecting employees' perceived organizational support which are fairness of procedures, rewards and work conditions, and support from leaders. Supervisors are mostly perceived as the representative of the organization. They frequently take charge in evaluating employees and communicating organization's goals and values to employees. Due to the belief that supervisor act as agents of the organization, consequently, when employees perceived that supervisors value their contribution and care about their well-being, they led to believe that the organization works on their favor (Eisenberger et al., 2002; Rhoades & Eisenberger, 2002). This is to say that employees take the way of supervisor treating them as the reflection of support by the organization. This argument has been empirically tested and confirmed by several studies (Eisenberger et al., 1986; Eisenberger et al., 2002; Ng & Sorensen, 2008; Rhoades, Eisenberger, & Armeli, 2001).

The above arguments are located inside the umbrella of "organizational support theory" which holds that beneficial treatment received from supervisors should lead employees to feel obligated to help and care about the organization in order to achieve company goals (Eisenberger et al., 1986; Rhoades et al., 2001). Moreover, this feeling of indebtedness increases employees' motivation to perform better at their jobs since this categorically helps the organization. Bowen and Ostroff (2004) argued that HR practices are symbolic in a way that it sends signals to employees to make sense of and define the psychological meaning they have of their respective work situations. Symbols like organizational rewards and favorable work conditions such as pay, promotions, or any favorable treatment from a supervisor contribute to a favorable perception of organization support. Consequently, employees may reciprocate these benevolent treatments towards their supervisor with positive attitudes and behaviors that benefit the organization.

Empirical studies have confirmed the influence of supervisory support towards employees' work outcomes such as organizational commitment (Joiner & Bakalis, 2006; Pepe, 2010), job satisfaction (Babin & Boles, 1996; Judge, Heller, & Mount, 2002), and turnover intention (Rhoades & Eisenberger, 2002). The relationship between

supervisory support and service performance has also been confirmed by prior studies. For instance, Singh (2000) confirmed that reduction in call centers' burnout tendencies and enhancement of service performance can be influenced by the support from supervisors. Guchait et al.(2014) described the influence of perceived supervisory support toward error management on employees' engagement in service recovery performance. Based on social exchange theory and empirical evidence, it is expected that when employees perceived supportive treatment from their supervisors, the feeling of obligation to reciprocate arises and they will return the favor with the effort to perform service recovery. Thus, the relationship between perceived supervisory support and the effort to recover service failure by employees is expected.

While work environments such as HR practices and supervisor may contribute to employees' service recovery performance, personality may also contribute to employee's performance(Hayes, Roehm, & Castellano, 1994; H. Liao & Chuang, 2004). As the organization invest resources in implementing HR practices with the aim of developing a greater performance of employees and expecting them to reciprocate their effort to the highest benefit of the organization, unfortunately, some employees may not respond to the expected level. This may due to the difference in characteristics and personalities of employees bring about variation as to their experiences and behaviors in their line of work(Nadler & Tushman, 1980). As regards to the service recovery literatures, internal service quality (i.e. HR practices and supervisor support) and individual characteristics were contended as the important predictors of employees' service recovery performance(Rod & Ashill, 2009; J. S. Smith et al., 2010; Van Vaerenbergh et al., 2014; Yavas et al., 2010). Therefore, personality traits were included in the framework as the belief that particular personality traits could influence individual's attitude and behaviors than any other factors (Kristop-Brown, Zimmerman, & Johnson, 2005).

## **2.6 Personality traits as the moderator**

MacKinnon and Hunt(1944) defined personality as the factors inside people that explain their behavior. These factors include temperaments and interpersonal strategies

that drive people social behavior(Hogan et al., 2001). Personality is often referred to as one's emotions, thoughts, and behavioral patterns (Kassin, 2003). Over the past two decades, a consensus has emerged that five dimensions or factors from Five-Factor Model, often referred to as the Big Five, can be used to describe a substantial amount of human personality. Tupes and Christal (1961) were the first to discover the Big-Five Factor. These factors were derived since 1936 from the earlier trait research of Allport (1936) and Cattell (1957) and other research. It was then expanded and combined, and came up with Big Five. The Big Five includes (1) emotional stability (2) extraversion (3) openness to experience (4) agreeableness, and (5) conscientiousness (Lewis R Goldberg, 1999; McCrae & Costa, 1997; Perrewe & Spector, 2002). The table below summarized the description of each personality traits.

McCrae and Costa (1997) tested and demonstrated the consistency of this Big Five personality across various national groups. The results comparing six diverse samples from German, Portuguese, Hebrew, Chinese, Korean, and Japanese showed substantial similarity in Big Five structure comparing with a large American sample. Hayes et al. (1994) reviewed scientific research on the nature of these personality attributes and found that over the past 45 years, the five dimensions can be found in several studies. For example, a meta-analysis of 117 studies conducted by Barrick and Mount (1991) showed that extraversion is associated with the success of managers and salespeople. Moreover, the personality such as conscientiousness, agreeableness, and extraversion were found to be positively related to affective and normative commitment as well as organizational citizenship behavior (OCB)(Nelson, 2011).

*Table 1: Big-Five personality dimension by Barrick and Mount (1991)*

<b>Big Five Personalities</b>	<b>Description</b>
Extraversion	Extraverted people are sociable, gregarious, assertive, talkative, and active. The opposite of extrovert are people who are reserved, quiet, and timid.
Conscientiousness	Conscientious individuals are described as diligent, organized, dependable, hardworking, and achievement-oriented. A low score on this dimension depicts a lazy, disorganized, and unreliable person.
Agreeableness	People who are agreeable are described as good-natured, forgiving, courteous, helpful, generous, and cooperative. People who are high in this tend to be better team players and get along better with colleagues, customers, and other stakeholders.
Emotional Stability	Emotional stability person is good in handling stress by remaining calm, focused, and self-confident. The polar opposite of emotional stability is Neuroticism which described as being depressed, angry, anxious, temperamental, worried, and insecure.
Openness to experience	A person's range of interest in new things. Open people are creative, curious, and artistically sensitive, as opposed to being closed-minded.

As noted earlier in the review of social exchange theory, although reciprocity is a human universal, the degree of valuing in reciprocity varies individually. Eisenberger et al. (1986) were the first who investigated individual exchange behavior through the lens of social exchange theory that tested the linkage between perceived organizational support and absenteeism. Their findings concluded that this relationship was stronger for an individual who has a high level of exchange ideology. Later the study was conducted further and found that this exchange ideology or felt obligation strengthens the relationship of perceived organizational support via the obligation feeling of individual, citizenship behaviors (Ladd & Henry, 2000), affective organizational commitment, and job performance (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). They referred exchange ideology as employees' belief in the appropriateness and usefulness to base their concern and work effort to the welfare of

the organization that treated them well (2001, p. 43). Furthermore, Cropanzano and Mitchell (2005) made an argument in their qualitative reviews that those people with high exchange orientation will carefully track obligations while those who are low in exchange-orientation is less in obligation and careless if exchanges are not reciprocated.

Shore and Coyle-Shapiro (2003) called to pay greater attention on the role of context and individual differences in social exchange relationships. They argued that individual differences might influence the extent to which people respond to the organizational effort in establishing the social exchange relationships. For instance, employees' performance may not always be reciprocated by the enhancement efforts (i.e. HR practices) on behalf of the organization. Although, all HR practices are constantly delivered in both intended and unintended ways, it can also be understood individually with two employees interpreting the same practices in different ways and responding to them in different manner.

On the basis of social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), employees are likely to demonstrate positive attitudes and behaviors in response to positive perceptions of how favorable the organization and their supervisor treated them. In contrast, employees who perceived any unfavorable treatment from the organization may reciprocate by violating organizational norms and exhibiting deviant behavior. Due to some individuals that are more sensitive to reciprocate than others, the concept of exchange has been explored for its moderating effects on organizational support and various attitudes and behaviors (Andrews et al., 2003; Ladd & Henry, 2000; Scott & Colquitt, 2007). Exchange orientation or exchange ideology person was proved to have more obligations to reciprocate (Cropanzano & Mitchell, 2005; Eisenberger et al., 2001); however, the question arises on which type of individual or personality trait that results into a higher reciprocal exchange orientation.

“Right person right job” is one of the popular terms in management disciplines (Brkich, Jeffs, & Carless, 2002). This notion of “fit” is the cornerstone of

industrial/organizational psychology and human resources management (Kristop-Brown et al., 2005; Saks & Ashforth, 1997). Nadler and Tushman (1980) argued that performance of worker will enhance when the demands of the job tasks match the characteristics of the worker. By implementing HR practices, organizations invest an enormous amount of resources such as time and money to train, motivate, and develop the performance of its employees. Unfortunately, some employees are not performing at the expected level. Conway (2004) argued that implying universal application like high commitment practices might yield different employee outcomes as they experience these practices differently. This may result from people who have been placed in a job to feel that the job was not right for them.

Mornell (1998) stated that the cost of replacing unfitted job employee is two and one-half times the person's annual salary. Due to these costs, putting the right person into the right job is essential. Personality traits are more proximal to behavior that could influence individual's attitude and behaviors than any other factors (Kristop-Brown et al., 2005). Moreover, employee's work attitudes may depend on the degree to which the individual's personality matches his or her occupational environment; thus, organization should not only match the job requirements with person's skills, knowledge, and abilities but should also carefully match the person's personality and values with organization's culture (Chew, Girardi, & Entekin, 2005). Indeed, Gibson et al. (2012) emphasized that employee's attitude and behavior cannot be understood without considering the concept of personality.

There were few studies that focus on investigating personality towards quality performance. Such as the study of Hayes et al. (1994) who found that employees' personality, such as conscientiousness, is significantly correlated with the success of total quality manufacturing. Four personality attributes: extraversion, neuroticism, locus of control, and psychoticism were tested to explore whether they are in compliance with total quality management (TQM). The results showed that extraversion is associated with TQM compliance. Moreover, it is suggested by the research that individuals who score high in conscientiousness tend to have high levels

of motivation and perform well across several different types of occupation (Barrick & Mount, 2003). Extroverted people on the other hand, tend to perform well in sales and management job, do better in training programs, and have higher levels of overall job satisfaction (Judge & Ilies, 2002).

In service quality literature, Brown et al. (2002) argued that worker's degree of customer orientation (disposition to meet customers' needs) is determined by basic personality traits. The argument was tested by collecting data from supervisor rating and frontline employees' self-rating. They found that two perspectives were conflicting. Both frontline employees and supervisor agreed that conscientiousness trait is directly related to service performance; however, supervisors did not perceive that agreeableness would exert to customer orientation. Besides, in customer perspective, personality traits such as extraversion, conscientiousness, and agreeableness were perceived to have a strong effect on service interaction quality (Ekinici & Dawes, 2009). Hence, it is reasonable to propose that if employees have certain personality traits such as extroversion or conscientiousness, they will display appropriate behavior (i.e. friendliness, smiling, or helpful) to develop successful interaction between them and organization's customers.

In contrast to favorable outcomes, some researchers focus on employees' negative reciprocal tendencies that may violate organizational norms and well-being. Workplace deviance and employees' counterproductive behaviors are a common and expensive problem for organizations (Bennett & Robinson, 2000). Based on social exchange theory, employees who perceived any unfavorable treatment from the organization may also reciprocate by violating organizational norms and exhibiting deviant behavior. These deviant behaviors include withholding effort, stealing, and acting rudely to others in the organization. Past research had proved that negative perceptions of the work situation led to deviant behavior (K. Lee & Allen, 2002); however, some constraints may reduce this likelihood.

Colbert et al. (2004) argued that personality traits such as conscientiousness, emotional stability, and agreeableness could moderate this relationship. They explored the joint

relationship of perceptions of work situation and personality traits with workplace deviance in four different samples of employees. The findings were interpreted in the context of social exchange theory and norm of reciprocity in which employees, who have negative perceptions toward their work situation will reciprocate by withholding efforts or engaging in work deviance. However, this reciprocity is not always occurring unless those individuals have certain personality traits. For instance, highly conscientious and agreeableness people are not likely to withhold effort even if they perceived little support from the organization. On the other hand, employees who are low in emotional stability are more sensitive to situational perceptions and are likely to withhold their effort if they perceived less support from the organization (Colbert, Mount, Witt, Harter, & Barrick, 2004, p. 607).

In addition, several researchers had called for more research in examining the joint relationship between perceptions of the work situation and personality traits toward work outcomes (Colbert et al., 2004). As such, it is expected that personality traits may also serve to enhance or suppress the reciprocity norm. In this current study, this assumption was tested on its effect towards employees' positive work attitudes and behaviors. Specifically, personality traits are proposed to moderate the relationship between internal service quality (i.e. HR practices and perceived supervisory support) and employees' service recovery performance.

In the following two sections, the study focuses on reviewing the interesting context in conducting this research and the overview of conceptual framework in the current study. Call center is chosen as the target of interest due to the rapid growth and its important source for differentiation that create competitive advantage over the competitors. Unlike other types of service jobs, call centers move around high-pressure work environments such as extensive monitoring to control the workforce, routinization, and repetitive tasks. It is a business operation handling multiple types of customer-oriented function that perform more and more non-traditional tasks with the aim of satisfying the unlimited demand of organization's customers. Moreover, responses to the need, Shore and Coyle-Shapiro (2003) called for more studies on social



exchange theory in other contexts. They argued that various sectors of industry might have different norms that may influence how treatment and exchange of resources are viewed.

## **2.7 Overview of call centers**

Customer service or call centers are strategically important to many organizations nowadays. The growth in the use of call centers has been driven by customer demand to access range of services during out of office hours. It is the focal point of the firm to interact with customers 24 hours a day throughout the year. Due to the increasing number of information-hungry customers who have more sophisticated pre-purchase and service information needs, their intention to contact or access the company have also been escalating. Anton (2000) argued that “accessibility” is the new corporate battleground that company need to focus in order to satisfy their customers. All forms of customer access include telephone calls, email, fax-mail, kiosk, and the Internet. Thanks to the advancement of information technology and the cheaper costs of data transmission, companies found it to be more cost-effective in providing sales and service to customers via remote technology-mediated centers(Thompson, 2005). As a consequence, call centers currently have experienced extraordinary growth in most of the countries(Holman, Batt, & Holtgrewe, 2007).

Since the appearance of call centers in early 1990s, it has become the most important single source of customer contact in the developed information economies. A number of job employments were generated in America, European countries, Australia, India, and more recently the Philippines. In particular, call center is one of the most rapidly growing areas of work. Call centers could be found in almost all economic sectors. They have moved from occupying a relatively small niche to a significant part of global economy. These developments have spawned a growing body of academic multi-disciplinary research ranging from Mathematics and Statistics to Operations Research, Industrial Engineering, Information Technology, Human Resource Management, Marketing down to Psychology and Sociology. The issues of breadth and complexity

in the call center have drawn attention to developing analytical frameworks and methodologies.

Call centers are known by several terms such as: contact center (Budhwar, Varma, Singh, & Dhar, 2006; Mandelbaum, 2006), customer service representatives (CSR) (Kinnie, Hutchinson, & Purcell, 2000; Steve, Barbara, & Gale, 2004), customer-contact employees, or call center representatives (CCRs)(Malhotra & Mukherjee, 2004). Taylor and Bain (1999, p. 102) are the first to formally define call center as:

*“A dedicated operation in which computer-utilizing employees receive inbound –or make outbound –telephone calls, with those calls processed and controlled either by an Automatic Call Distribution (ACD) or predictive dialing system....the call center is thus characterized by the integration of telephone and VDU technologies.”*

Other scholars defined call center that distinguish its environment from other such as:

- A work environment in which the main business is mediated by computer and telephone-based technologies that enable the efficient distribution of incoming calls (or allocation of outgoing calls) to available staff, and permit customer-employee interaction to occurs simultaneously with the use of display screen equipment and the instant access to, and inputting of, information(Holman et al., 2007).
- Call center is a voice operations center that interfaces with the customer in a variety of ways from customer support, billing, provisioning, directory assistance, to technical support(Jack, 2006).

After analyzing from different scholars’ definitions, this study adopts the definition from Taylor and Bain (1999) because it is the most cited and comprehensive, which contains three important elements: (1) the call center is a dedicated operation that employees entirely focused on the customer service function, (2) telephones and computers simultaneously mediate the main business, and (3) the calls are processed and controlled by an automatic distribution system. Call centers combine the services

of a human agent with the resources of a database. They are a means of providing “one-stop” concept for inquiries about products, placing orders, and determining delivery schedules (Adria & Chowdhury, 2002). Recently, call center is a business operation handling multiple types of customer-oriented function such as marketing, selling and servicing, through multiple channels of customer interaction such as electronic mail, the World Wide Web, electronic messaging, voice message, fax message, chatting, and traditional mail but the primary means of contact is facilitated by telephone calls (Alava, 2006). Thus, the challenge of today’s multi-channel communication call center is to perform more and more non-traditional tasks while collecting and supporting indefinite customers’ expectation for high-quality service in call centers. They are now required for more strategic roles such as building the customer relationship and selling company products and services (Jack, 2006).

Mandelbaum (2006) contributed to the review of call center literature. He developed 6 versions of comprehensive bibliography. The most recent version comprises of 514 academic studies, 34 case studies, 66 books & reports, 11 call center journals & magazines, and 15 websites that are all related to call center. The majority of academic literature in call center falls in operations research or operations management discipline, which mainly focus on investigating its technological and engineering aspects, for instance, scheduling, queuing, and improving performance model for call centers. There is also an increasing interest in investigating call center practices in relation to other disciplines such as in Human Resource Management (HRM) and Management Models. The dominant themes in call center’s literature are monitoring and surveillance or management control (Russell, 2008). The existing call center research in the aspect of HRM mostly highlights two main problems, which are the conflict between two principles and high labor turnover.

Two contrasting principles result from two different images in call center. One image emphasizes the bureaucratic and constraining nature of the work settings. This image has been referred to as the ‘electronic sweatshop’, ‘panoptical wired cage’, ‘assembly lines in the head’ (Taylor & Bain, 1999), or ‘production-line approach’ (Gilmore, 2001).

In this view, employees' work is repetitive and de-skilled. They are controlled and monitored by management, who applied 'hard' or quantitative measures such as time to answer, call length, the abandoned call rate, accuracy and obedience to script and salutation greeting, and wrap-up time. These measurements are collected via the automatic call distribution (ACD) system. In the opposite, some scholars such as Kinnie et al. (2000) and Gilmore (2001) argued that call centers required semi-professional 'empowered' workers. These empowered workers will be able to customize their work to the needs and expectations of the customers. However, Frenkel et al. (1998) argued that the two images coexist. The management has to adopt a form of organization which reconciles the two conflicting principles between the standardization of processes, which lower unit costs through scale and customization that aimed to generate revenue by focusing on individual customer requirements. In the other words, it emphasizes on both cost-efficient (quantity) and satisfying customers (quality). This hybrid form is denoted as 'mass customized bureaucracy' (MCB) (Frenkel et al., 1998) or 'mass customization models' (Batt & Moynihan, 2002). Consequently, to balance between both principles, employees face a mixture of control and commitment strategies. For instance, the work environment is highly controlled and strictly measured against target meanwhile employees are encouraged to perform better in satisfying customers' need.

Wallace et al. (2000) proposed that to achieve both efficiency and high levels of service at the same time, the management should adopt "sacrificial HR strategy" by compromising some sorts between efficiency and services. The strategy excelled into four areas: having efficient recruitment processes to ensure the quick access in labor pool; must be skilled at selecting intrinsically motivated staff; able to design the tasks that require the minimum need for organizational knowledge, and must excel at monitoring staff performance (p. 183). Nonetheless, there is still a problem with the sacrificial HR strategy and mass customized bureaucracy approach in explaining the exceptionally high rates of employee attrition and turnover in call centers (Russell, 2008).

High turnover in call center is another important problem that management is facing. Holman (2003) argued that some employees enjoy call center work but for many it is demanding and stressful. The combining factors such as close surveillance and work controls, extremely fast pace between calls, and emotional customers who are upset, angry, or frustrated would create a stressful work environment. Taylor and Bain (1999) addressed that technology is emphasized to facilitate the physical concentration of staff, labor scheduling, and staff monitoring; however, it also results in negative consequences as employees' exhaustion, stress, and turnover. Turnover remains steadfastly high and poses a major challenge for call center management (Robinson & Morley, 2006). Emotional labor is required for call centers as they have to employ various strategies to regulate their emotions when interacting with complaining and irate customers. Call center engage in emotional labor to display positive emotions and suppress negative one that could result in higher employee strain (Rohrmann, Bechtoldt, Hopp, Hodapp, & Zapf, 2011). Empirical evidence confirmed that emotional labor does affect turnover intention in call centers (Goodwin, Groth, & Frenkel, 2011).

Apart from the stressful work environment, the monotonous work, adverse working conditions, and lack of career development opportunities are the key causes of increasing attrition rates in call center industry (Budhwar et al., 2006). Hillmer et al. (2004) argued that replacing employees involves more than just advertising for positions, interviewing candidates, or providing initial training; it includes the costs to provide the same level of customer service and to maintain the same level of efficiency and effectiveness from the leaving agents. It can be assumed that the cost of turnover for the call center is approximately a year's salary for each vacant position (p. 39). While academics and practitioners addressed the problem in high turnover and attrition, Wallace et al. (2000) argued that turnover rates no longer need to be a concern due to the large labor pool. They acknowledged that the labor market is currently large for the call centers and the development in technologies allow the minimization in the cost of recruitment and replacement.

### 2.7.1 Call Centers: Global and Thailand issues

As mentioned above, call center is one of the most rapidly growing areas of work. Currently, a number of call centers in Asia Pacific region outperforms other regions such as Eastern Europe, South American, and Africa. At 2010 Customer Contact Thailand Summit, the analyst from Frost & Sullivan announced that call centers in Asia Pacific are projected to grow at a compound annual growth rate of 10.5 percent. It is estimated to reach over 3 million seats by 2014 (see Figure 5). Thailand's call center market is also expected to grow within a year on the growth rate of 18.4 percent in 2016. Thailand's call center is projected to reach close to 63,000 call center seats within the same year (see Figure 6).

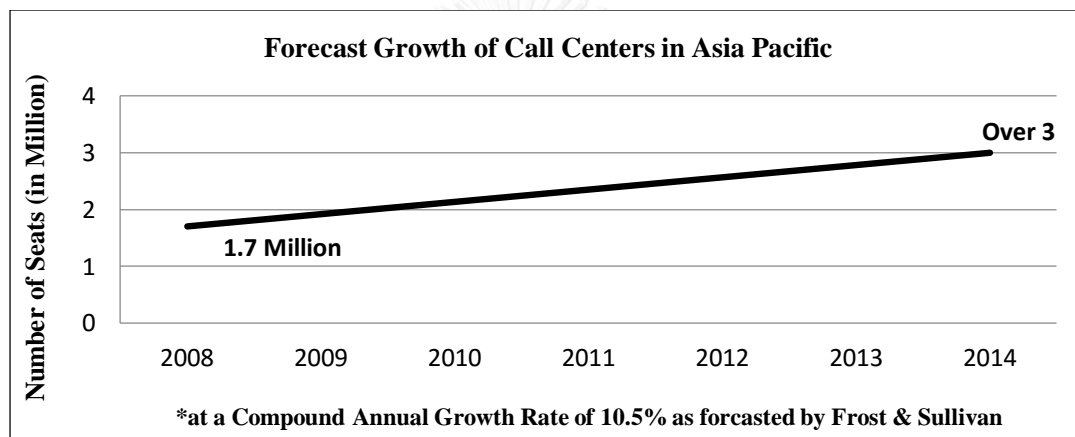


Figure 5: Forecast growth of call centers in Asia Pacific by Frost & Sullivan (2010)

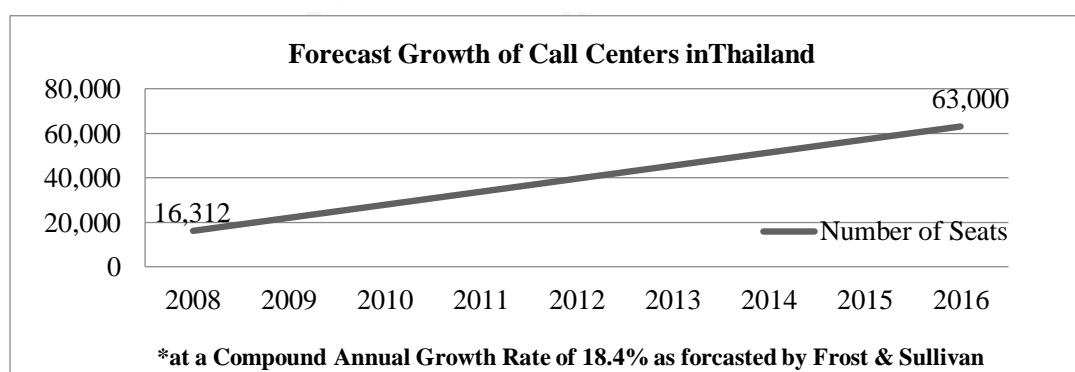
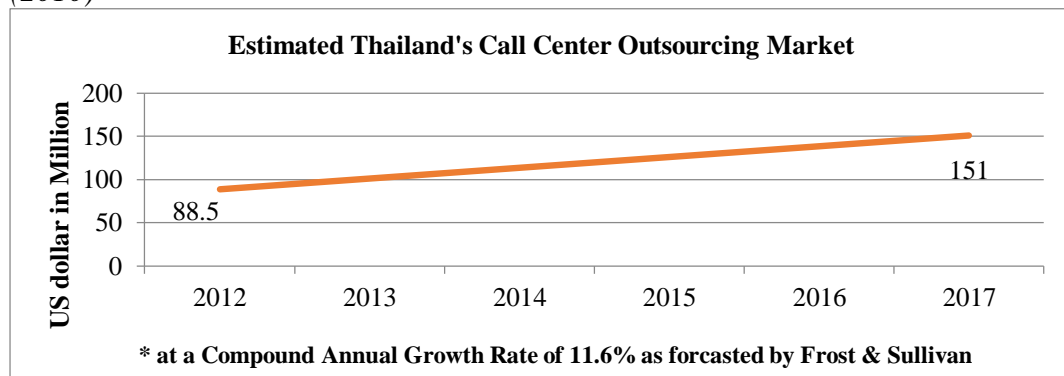


Figure 6: Forecast growth of call centers in Thailand by Frost & Sullivan (2010)

Today, businesses, call centers or contact centers are becoming a critical part of customer management, and their responsibility scope is widening. Telephone and email are still the primary tools for call centers, but the appearance of social media requires

the imminent integration of their role. Thailand's call center industry is also increasing, and it is competing alongside the traditional outsourcing countries like India and the Philippines. According to Krishna Baidya, industry manager for Asia-Pacific of Frost & Sullivan (2010), "the country's contact center outsourcing market is expected to grow at a compound annual growth rate of 11.6 percent to reach US\$ 151 million by 2017."

Figure 7: Estimated Thailand's call center outsourcing market by Frost & Sullivan (2010)



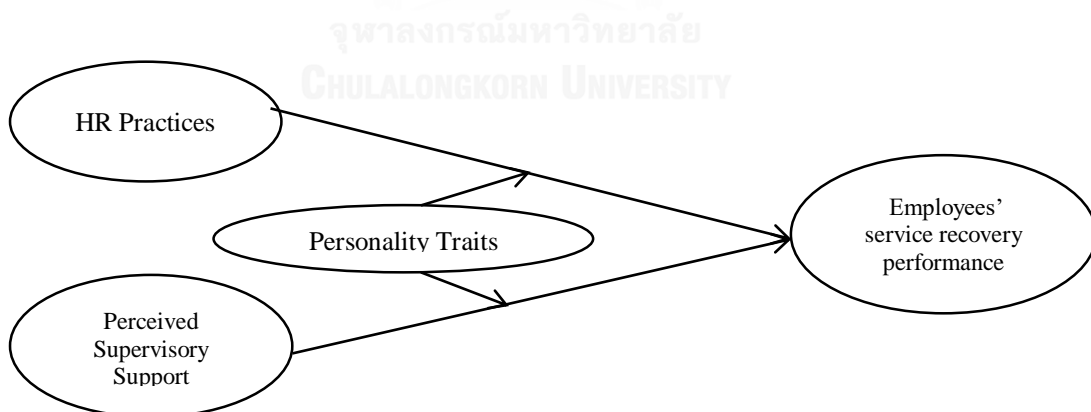
This growth is due to a large pool of computer literate professionals, good IT skills, and wide gap in personnel costs between Thailand and developed markets as well as the increasingly English-educated labor pool. These seem to attract propositions for outsourcing. In 2011, A.T. Kearney conducted a survey to measure the relative attractiveness of offshore locations with regard to financial structure, business environment, and people skills and availability. Thailand ranked seventh from fifty countries as the most attractive country for offshoring in 2011. However, the rank dropped from its fourth rank in 2007 due to the decline in business environment, people skills and availability (*Offshoring Opportunities Amid Economic Turbulence: The A.T. Kearney Global Services Location Index, 2011, 2011*).

Kasikorn Research Center (KResearch) stated that despite the economic downturn in Thailand, call center business remains promising and prove to be a blessing. Competition in the call center market has exaggerated, which is maybe due to the fact that most organizations are now having call centers as one of their sale channels. However, in 2009 the market turnover of call center business costs 3.5 to 4 billion baht,

a recorded increase by 15 to 20 percent from the previous year. High turnover will not only create gap in delivery quality but also increase in spending towards staff training. Therefore, it is then essential to understand employee (call center) attitudes and behaviors in order to develop and retain them within the organization as well as enhance their effort to deliver quality service to the customer.

## 2.8 Conceptual Framework: Employees' service recovery performance

The conceptual framework of employees' service recovery performance is developed based on the integration of HR practices, perceived supervisory support, and personality traits. The relationship between HR practices and employees' service recovery performance as well as the relationship between perceived supervisory support and employees' service recovery performance are framed base on social exchange theory. The objective of the study is to explore the moderating role of personality traits toward the relationship between perceived HR practices as well as perceived supervisory support and service recovery performance. Hence, the conceptual framework in this current study is presented in the following figure.



*Figure 8: Conceptual framework: Employees' service recovery performance*

Each construct is adopted from the literature review and details regarding its measurement method discussed are in Chapter 4. Definitions for all constructs in the research framework are explained as follows:



- 1) *Employees' service recovery performance* is defined as employees' perceptions of their abilities and actions to resolve a service failure to the customer's satisfaction (Babakus et al., 2003).
- 2) *HR practices* is referred to as the degree of employee perception toward employment practices that is concerned on how people are employed and managed in organization (e.g. employment security, selective hiring, training and development, empowerment, compensation on performance, sharing information, and reduction of status different)(Gould-Williams, 2003).
- 3) *Perceived supervisory support* is defined as the degree to which employee perceive that their supervisors offer support, encouragement, and concern toward the employees (Babin & Boles, 1996).
- 4) *Personality traits* are defined as the factors inside people that explain their behavior(MacKinnon & Hunt, 1944).

## **2.9 Literature: Conclusion**

Literatures reviewed for this dissertation are described in this chapter. The chapter begins with the review of the service profit chain, the theoretical ground of the current study, then the concept of service recovery performance, which is the main construct of this study. It is followed by the discussion of the social exchange theory and how it is used as the theory underpinning the relationships between internal service quality and employees' service recovery performance. HR practices and perceived supervisory support, the proxy of internal service quality, are explained as well as Big Five personality traits, the moderating mechanism that is expected to strengthen the relationships between internal service quality and employees' service recovery performance. The study also discusses the literature of the call center as well as the current issues. Lastly, the conceptual framework of the research is proposed and the definitions for all constructs in the framework are given.

## CHAPTER 3

### THE PROPOSED MODEL AND RESEARCH HYPOTHESES

This chapter explains the proposed model and hypotheses development that are derived from the theoretical and literature reviews in the second chapter. This chapter also presents the development of a model and hypotheses on employees' service recovery performance, HR practices, perceived supervisory support, and Big Five personality traits.

#### 3.1 An Overview of the Proposed Model

The proposed model of employees' service recovery performance was developed from the integration of HR practices and perceived supervisory support from the widely recognized theories. Service profit chain (Heskett et al., 1997) and social exchange theory (Blau, 1964) were used as a framework to explain the relationship of internal service quality (i.e. HR practices and supervisory support) and employees' service recovery performance.

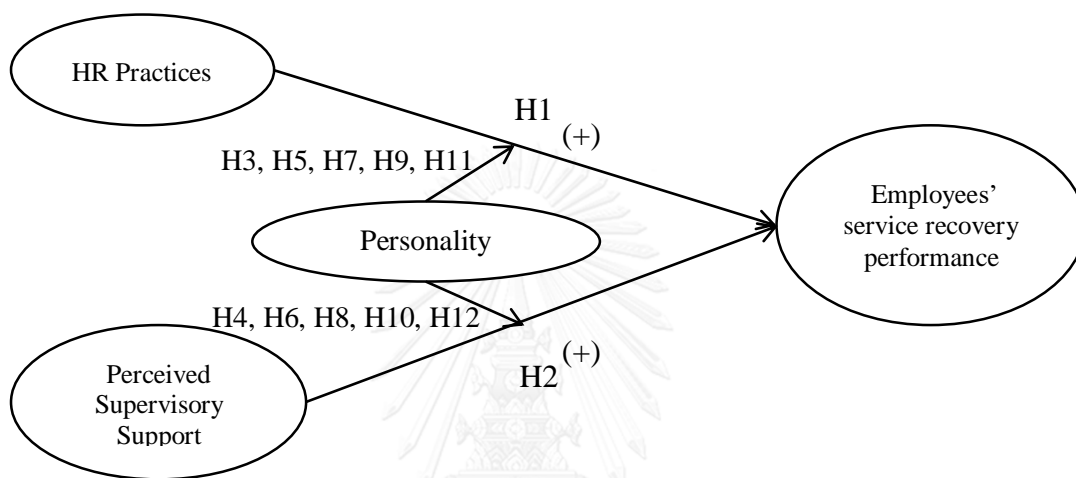
On the basis of social exchange theory (Blau, 1964) and norm of reciprocity (Gouldner, 1960), when employees perceive of being valued and supported by either organization or their supervisor, they will reciprocate these good deeds with positive work attitudes and behaviors (Gould-Williams & Davies, 2005). HR practices and supervisory support could serve as a way for organizations to show their concern, support, or commitment to their employees in order to promote their performance (Eisenberger et al., 1986).

Based on service profit chain (Heskett et al., 1997), the model proposed that employees' service recovery performance is directly influenced by internal service quality that is provided by the organization and their immediate supervisors. Moreover, the exchange

relationships can also be enhanced or hindered by individual disposition such as personality traits within the employees themselves.

### 3.2 Hypotheses Development

The proposed model of employees' service recovery performance with hypotheses are depicted in Figure 9 below.



*Figure 9: Conceptual framework and hypotheses*

To successfully achieve service recovery, service managers invested in a number of human resource practices in order to enhance employees' knowledge, skills, and ability to recover service failure (Karatepe et al., 2014). Employees who experience HR practices can generate ideas for solutions and improvement to deal with customer complaints. The practices of human resources management are concerned with all aspects of how people are employed and managed in the organization (Conway, 2004). These practices include providing employment security, selective hiring, extensive training, self-managed teams, high compensation based on performance, sharing information, and reduction of status differences (Pfeffer & Veiga, 1999).

According to the social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), it is believed that when a person or entity makes any favor to others, the recipients will feel a sense of obligation to return the favor to the sender.

Hence, it can be expected that when employees perceived that the organization invests in human resource management (HRM) such as providing training, rewards and recognition, they will feel that the organization values and cares about their well-being, which will then influence their attitudes and behavior that benefit the organization (Gilbert et al., 2011; Whitener, 2001). For instance, Little and Dean (2006) found that among all dimensions of service climate, human resources management emerged as the only significant predictor for employees' service quality capacity. It is suggested that specific activities with respect to HRM appear to have the most influence on the employees' service performance (Little & Dean, 2006, p. 468). This can be inferred that the more employee perceived support by employers via HR practices, such as participation in decision-making, fairness of rewards, or growth opportunities, the more they are likely to be willing to give back to their employers in the form of performance (Messersmith, Lepak, & Patel, 2011; Nishii et al., 2008). Thus, it is expected that:

H1: HR practices have a positive influence on employees' service recovery performance.

Supervisor is the most noticeable agent or representative of management actions, policies, and procedures. Employees take the way of how supervisors treat them as the reflection of the organization (Choi et al., 2012). In call center, supervisors play the most important role, as they need to coach, monitor, and assess the agents in handling customers' call (Ng & Sorensen, 2008). Apart from facilitating employees by providing resources, supervisors may also provide emotional support by showing personal consideration such as sympathy, care, comfort, and encouragement (Babin & Boles, 1996; Maertz et al., 2007; Ng & Sorensen, 2008). As a consequence, when employees perceived the support by their supervisors, they are likely to reciprocate positive feelings and trust toward their supervisor. Moreover, employees who feel being supported are committed, satisfied, and willing to stay in the organization (Babin & Boles, 1996). Evidently, the relationship between supervisory support and service performance has also been confirmed by prior studies (Guchait et al., 2014; Singh,

2000; Van De Voorde et al., 2012). For instance, Singh (2000) confirmed that reduction in call centers' burnout tendencies and enhancement of service performance can be influenced by the support from supervisors. Guchait et al.(2014) described the influence of perceived supervisory support toward error management on employee's engagement in service recovery performance. Based on social exchange theory (Blau, 1964) and empirical evidence, it is expected that when employees perceived supportive treatment from their organization and supervisors, the feeling of obligation to reciprocate their organization and supervisors will arise and they will return the favor with the effort to perform service recovery. Hence, the study proposed that:

H2: Perceived supervisory support has a positive influence on employees' service recovery performance.

*Hypothesis 3 to 12 tested the moderating role of personality traits on the relationships between internal service quality and employees' service recovery performance.*

As noted in the beginning of Chapter 2, the linkage between personality traits and performance are well documented(Sawyer et al., 2009). For instance, Barrick and Mount (1991) found a positive relationship between extraversion and job performance for salespeople and managers. Rothman and Coetzer (2003) found that emotional stability, extraversion, openness to experience, and conscientiousness were related to task performance and creativity. Moreover, extraversion and agreeableness were related to interpersonal performance; while all personality traits except agreeableness were found to predict task performance (Barrick, Parks, & Mount, 2005). However, few studies has explored the influence of personality traits toward service recovery performance(Rod & Ashill, 2009). Particularly, there is still a lack of empirical studies that investigate the impact of Big-Five personality traits on service recovery performance. Several researchers had called for more study examining additional personality traits as antecedents of service recovery performance (N. Ashill et al., 2009; Rod & Ashill, 2009; J. S. Smith et al., 2010; Van Vaerenbergh et al., 2014; Yavas et al., 2010).

Regarding the social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), employees are likely to demonstrate positive attitudes and behaviors in response to positive perceptions of how favorable the organization and their supervisor treated them. However, Bennett and Robinson (2000) argued that there could be some constraints toward this reciprocity norm. For instance, some particular personality traits could enhance or suppress this take and give norm. Ashton et al. (1998) identified Big Five personality characteristics associated with reciprocal orientation and found that people with high agreeableness and low emotional stability traits would likely reciprocate to others. Moreover, Bowling et al. (2005) also examined the roles of personality and reciprocity in both giving and receiving of social support from co-workers. The study found that both extraversion and agreeableness were positively related to giving and receiving non-job and positive work-related social support.

Although previous work had investigated the direct relationship between personality traits and performance, few studies had tried to investigate joint effects between the perceptions of the internal quality of work environment and personality traits toward its outcome (Colbert et al., 2004). Taking this into account, the role of personality traits in this context is hypothesized to be the moderator, and this moderator should be introduced in order to explain the phenomenon when there is an inconsistent relations between the predictor and outcome variable (Baron & Kenny, 1986). The development of moderating hypotheses for each personality traits is discussed in the following sections:

### **Extraversion**

An extroverted person is widely known as sociable, active, talkative, person-oriented, optimistic, fun loving and affectionate (Barrick & Mount, 1991). These traits generate an individual's potential and energy that may lead to the ability to deliver quality service. The link between extraversion and job performance is well documented. For

example, meta-analysis studies confirmed positive relationship between extraversion and task performance (Barrick & Mount, 1991; Chiaburu, Oh, Berry, & Gardner, 2011), job performance (Chu & Lee, 2012), creativity (Rothmann & Coetzer, 2003), job involvement (C.-S. Liao & Lee, 2009), organization commitment (Erdheim, Wang, & Zickar, 2006; Kumar & Bakhshi, 2010), and job satisfaction (Judge et al., 2002).

Petrou et al. (2011) found that extroverts are willing to perform better when they perceived an equality exchange relationship between them and their employer. Moreover, extraversion was found to be positively related to normative commitment (Erdheim et al., 2006), which is an employees' belief about the mutual obligations between them and the organization (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Hence, it is expected that employees who are high in extraversion are likely to return their organization and supervisors by performing better in terms of service recovery after they have received support from them. Therefore, the study proposes the third hypothesis as the following:

H3: The positive relationship between HR practices and employees' service recovery performance is stronger when extraversion is high.

H4: The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when extraversion is high.

### **Conscientiousness**

Conscientiousness represents the degree of orderliness, organization, and precision. In a sense, conscientiousness may reflect a task orientation such as willing to get the job done correctly, or by satisfying the customer (Brown et al., 2002). Individuals who are high in conscientiousness tend to be achievement-oriented, dutiful, and hardworking (Barrick & Mount, 1991). Past research studies have proved that conscientiousness has a positive relationship with job performance (Barrick & Mount, 1991; Nelson, 2011) and service performance (H. Liao & Chuang, 2004). For instance, a meta-analysis

conducted by Barrick and Mount (1991; 2003) revealed that conscientiousness has been found to be positively related to job performance in all occupational groups. Liao and Chuang (2004) also found a significant positive relationship between conscientiousness and employee service performance.

Funder (1994) suggested that work environment characteristics (i.e. organizational support and manager support) could influence conscientiousness and its associated behaviors. Demerouti (2006) also argued that job resources or supportive work environments will most probably be beneficial for employees who reported high in conscientiousness. Because people who are highly conscientiousness are hardworking, dependable, responsible, and well-organized (Barrick & Mount, 1991), support from the organization and supervisors could promote a fertile environment that facilitate conscientious employees to perform even better. Past studies have confirmed the interaction between conscientiousness and work environments toward performance. For instance, conscientiousness was found to moderate the relationship between flow at work and in-role and extra-role performance (Demerouti, 2006). Chu et al. (2012) also found that the personality traits of conscientiousness moderated the relationship between flow and job performance. Moreover, Jawarhar and Carr (2007) found that conscientiousness interacts with perceived organizational support and immediate supervisor support to influence contextual performance among the employees. Contextual performance is defined as activities that contribute to the social and psychological core of the organization such as volunteering for additional work, following organizational rules and procedures etc. (Borman & Motowidlo, 1997). Consistent with empirical evidence, it is expected that the support from the organization and supervisors would ease a conscientiousness person to perform their best in the recovering service failure. Hence, it can be estimated that conscientiousness will moderate the relationship between organizational support in form of HR practices/supervisor support and employees' service recovery performance:

H5: The positive relationship between HR practices and employees' service recovery performance is stronger when conscientiousness is high.



H6: The positive relationship between perceived supervisory supports and employees' service recovery performance is stronger when conscientiousness is high.

### **Agreeableness**

Agreeable people are described to be good-natured, altruistic, sympathetic, and eager to help others rather than to compete (Ekinici & Dawes, 2009). Consequences of higher agreeableness include better interpersonal interactions (Barrick & Mount, 1991), and stronger service orientations (Brown et al., 2002). Empirical studies showed that agreeableness predicts better performance evaluation from supervisors, interpersonal trust from co-workers, and coalition with others in the workplace (Hurtz & Donovan, 2000; Mount, Barrick, & Stewart, 1998). In terms of service performance, the consequences of higher agreeableness include better interpersonal interactions and stronger tendency to satisfy customer needs (Brown et al., 2002). Colbert et al. (2004) found that the relationship between perceived organizational support and interpersonal deviance was stronger for employees who are low in agreeableness. In other words, employees who reported high in agreeableness are less likely to withhold their effort to perform once they perceived that management values their contributions and cares about their well-being. Consistent with Colbert et al.'s finding, past research studies found that people who are high in agreeableness are likely to reciprocate the organization for providing them a supportive environment (Ashton et al., 1998; Erdheim et al., 2006). It is expected that employees who score high in agreeableness will likely exert more effort to handle customer complaints and recover any service failures that occur between firm and customers; therefore, the study proposed the following hypothesis:

H7: The positive relationship between HR practices and employees' service recovery performance is stronger when agreeableness is high.

H8: The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when agreeableness is high.

## **Emotional Stability**

Emotional stability refers to the evenness or steadiness of a person's emotion. Individuals with high levels of emotional stability are described to be self-reliant, calm, and stable (Brown et al., 2002). Empirical research suggested that individuals who are emotionally stable are more likely to exert more effort to perform their jobs (Colbert et al., 2004; Judge & Ilies, 2002; Rothmann & Coetzer, 2003), have greater job proficiency (Clarke & Robertson, 2005), have job satisfaction (Cleare & Oriakhi, 2013; Judge et al., 2002), and strive for accomplishment (Barrick & Mount, 1991).

Call center jobs have been characterized as a stressful work and have been called as "emotional labor" job (Hunt & Rasmussen, 2010; Taylor & Bain, 1999). Emotional labor refers to the job wherein employees need to manage their feelings and attitudes while possessing the quality and quantity of product knowledge delivered to customers (Taylor & Bain, 1999). Given the stressful work nature in call centers, individuals who are emotionally stable are prone to perform better services than those who are anxious, tense, and less tolerant of stress (Barrick & Mount, 1991; Mount et al., 1998; Ruppel, Sims, & Zeidler, 2013). Moreover, individuals who were reported high in emotional stability were found to perform better in service and customer oriented behavior (Lanjananda & Patterson, 2009). As emotionally stable individuals are not distracted by negative emotions or feeling anxious, they might be more involved in their jobs and perform better in recovering the service failure.

In addition, individuals who are high in emotional stability are more likely to return a favor than those who reported low in emotional stability (Colbert et al., 2004; Petrou et al., 2011). This means that once employees perceived support from their organization and supervisors, they are likely to return a favor to their organization and supervisors by working harder, performing better on jobs, and putting more effort to satisfy customer's needs and interest. Consistent with these views, Fullerton et al. (2014) found that perceived supervisory support could lead to greater levels of job performance in

individuals who are emotionally stable. Therefore, it is expected that individuals who are high in emotional stability would respond to their organization and supervisors by providing quality service to customers and preventing service failure after they have received support from their organization and supervisors. Thus, it is expected that:

H9: The positive relationship between HR practices and employees' service recovery performance is stronger when emotional stability is high.

H10: The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when emotional stability is high.

### **Openness to Experience**

Openness to experience is interpreted as intellect, which means a person is creative, open-minded, imaginative, and analytical. People who score high on this trait are more likely to have positive attitude towards learning experiences (Barrick & Mount, 1991). Erdheim et al. (2006) confirmed the relationship, and speculated that people who score high in this trait are more exploratory and more willing to pursue job alternatives than those who score low. It has been seen that individual who score high on openness to experience showed better performance in an unfamiliar environment (Bing & Lounsbury, 2000; Ones & Viswesvaran, 1999). For instance, Bing and Lounsbury (2000) found that openness to experience predicted unique variance in job performance among the US-based Japanese manufacturing employees; while, Ones and Viswesvaran (1999) found that openness to experience was an important factor for the expatriate in the completion of overseas assignments.

According to a meta-analysis conducted by Barrick and Mount (1991), openness to experience was identified as a trait that is most willing to engage in the learning experience. The finding showed that openness to experience predicts training proficiency. As a consequence, individuals who reported high in openness to experience are likely to benefit from training programs that are conducted by the organization (Salgado, 1997). Recently, Pagon et al. (2011) found that openness to

experience interacts with on-the-job training in relation to multicultural skills. They argued that as the levels of initial training, informal training, mentoring, coaching, and the availability of resources start to increase, high openness to experience employees outperform those who reported low in openness to experience. In this view, openness to experience people may likely practice their ability and extra effort after participating in the training and development programs provided by the organization. Therefore, based on the empirical evidence, it is expected that openness to experience people would benefit from the availability of resources supported by management. This support would facilitate openness to experience individuals to deal with the complexities and difficult situations more efficiently such as meeting customers' demand or recovering dissatisfied customers. Thus, it is proposed that:

H11: The positive relationship between HR practices and employees' service recovery performance is stronger when openness to experience is high.

H12: The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when openness to experience is high.

In conclusion, this chapter presents the development of the proposed model, proposed framework and twelve hypotheses that contain two direct effects and five moderating effects. Table 2 summarizes all the research hypotheses in this study.

### 3.3 Summary of the Hypotheses

The summary of all hypotheses in the current study is illustrated in the following table.

*Table 2: Summary of hypotheses*

Hypotheses	Statement
H1	HR practices have a positive influence on employees' service recovery performance.
H2	Perceived supervisory support has a positive influence on employees' service recovery performance.
H3	The positive relationship between HR practices and employees' service recovery performance is stronger when extraversion is high.
H4	The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when extraversion is high.
H5	The positive relationship between HR practices and employees' service recovery performance is stronger when conscientiousness is high.
H6	The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when conscientiousness is high.
H7	The positive relationship between HR practices and employees' service recovery performance is stronger when agreeableness is high.
H8	The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when agreeableness is high.
H9	The positive relationship between HR practices and employees' service recovery performance is stronger when emotional stability is high.
H10	The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when emotional stability is high.
H11	The positive relationship between HR practices and employees' service recovery performance is stronger when openness to experience is high.
H12	The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when openness to experience is high.

## CHAPTER 4

### RESEARCH METHODOLOGY

The objective of the study was to explore the moderating effects of personality traits on the relationship between the internal service quality (HR practices and perceived supervisory support) and the employees' service recovery performance. This chapter presents the research methodology and research design that were used to test the proposed model and hypotheses. Research design includes sample selection criteria, scale and measurement development, data collection technique, and data analysis methods for hypothesis testing.

#### **4.1 Research method**

##### *Quantitative research approach*

Quantitative research is derived from the scientific method used in physical sciences. This approach is an objective, formal, systematic process in which numerical data are utilized to quantify or measure phenomena and produce findings (Carr, 1994). The advantage of the quantitative approach is that the results are generally statistically reliable and objective. They are projectable to the entire population because it usually involves a larger group of subjects (Babbie, 2010).

As mentioned above, the purpose of the study was to understand the moderating effects of Big Five personality traits on the relationship between perceived HR practices and/or perceived supervisory support toward employees' service recovery performance. The study aims to explore the moderating effects of each Big Five personality traits on the existing relationships therefore statistical testing in quantitative approach is required for the analysis in order to address the hypotheses mentioned in Chapter 3. As such, to answer the research questions in this study, quantitative research approach was chosen.

## 4.2 Research Design

To ensure that the data gathered will appropriately answer the research questions, sample, data collection, and data analysis methods need to be well-planned. The following section describes the structure of the research and shows all of the major parts of the research project, which includes the participants, instruments, data collection, and data analysis methods.

### 4.2.1 Targeted population

The target participants for the study were the call centers who are responsible for inbound and outbound calls in service industries in Bangkok, Thailand. Unlike manufacturing, services are intangible and cannot be transported or inventoried (Karmarkar, 1996). Many service industries have shifted toward a model of mass customization, and call center employees are critical resources responsible for delivering these customized services to the satisfaction of the customers (Pine, 1993). These two service industries are telecommunication and financial & banking industries.

Telecommunication firms were the earliest to adopt the call center strategy to handle and respond to the large volumes of customer enquiries as well as provide a myriad of services to customers such as providing an assistant in establishing connections or resolution of billing problems (Holman et al., 2007); whereas call centers in financial & banking usually conduct more complex transactions than other industries such as providing advice in transaction, investment, or open accounts. These two industries were chosen as the interest of study due to their significant growth during the past few years (Koonnathamdee, 2013). This significant growth results from an increasing in the number of customers as well as the level of demand for accessibility (Russell, 2008). Accordingly, data were collected from call center agents from telecommunication and financial & banking industries who spent their time dealing directly with customers and responding their inquiries, problems, and complaints.

#### 4.2.2 Sample size

To determine the sample size, behavior researchers suggested subject-to-variables ratios of 30:1 (Pedhazur, 1997). In the other words, it requires 30 observations for each estimated parameter in the proposed model. The current study employs two independent variables and one moderator namely: HR practices, perceived supervisory support, and Big-Five personality traits. Four control variables (i.e. gender, age, tenure, and types of firm) were also investigated in the study. The following formula shows the number of parameters in the equations and sample size calculation.

Based on a linear regression equation,

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i \quad i = 1, \dots, n$$

where:

- $Y_i$  is the (random) response for the  $i^{\text{th}}$  case
- $\beta_0, \beta_1$  are parameters
- $X_i$  is a known constant, the value of the predictor variable for the  $i^{\text{th}}$  case
- $\varepsilon_i$  is a random error term, such that:  
 $E\{\varepsilon_i\} = 0 \quad \sigma^2\{\varepsilon_i\} = \sigma^2 \quad \sigma\{\varepsilon_i, \varepsilon_j\} = 0 \quad \forall i, j \ni i \neq j$

With regard to the conceptual model:

The moderating effect of personality traits on the relationship between internal service quality (HR practices and perceived supervisory support) and employees' service recovery performance, including control variables.

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_1 M + \beta_3 M + \beta_4 X_2 + \beta_5 X_2 M + \beta_6 X_3 + \beta_7 X_4 + \beta_8 X_5 + \beta_9 X_6 + \varepsilon$$

where:

- $Y_1$  is dependent variable (employees' service recovery performance)
- $X_1$  is the first independent variable (HR practices)
- $X_2$  is the second independent variable (perceived supervisory support)
- $M$  is moderator variable (personality traits)



- $X_3$  is the first control variable (Gender)
- $X_4$  is the second control variable (Age)
- $X_5$  is the third control variable (Tenure)
- $X_6$  is the fourth control variable (Types of firm)

As shown in the equation above, 11 parameters were created which contained 10  $\beta$  and 1  $\epsilon$ . Since there were 5 personality traits used in the study, five more parameters were added. It then led to a total of 16 parameters, which was used to calculate the sample size. Based on the rule of 30 subject-to-variables (Pedhazur, 1997), the minimum required sample size for multivariate analysis in the current study is, at least,  $16 \times 30 = 480$ .

#### 4.2.3 Sampling Techniques

The researcher contacted through personal networking some service organizations to participate in this study. After few negotiations, only one telecommunication company and one financial service organization granted permission to conduct the survey among their employees. As such, the data were derived from a sample of Thai call center agents from two organizations representing two industries, including telecommunication and financial & banking. Upon the voluntary, the participants were selected using convenience sampling method.

As mention earlier, the target participants for the study were the call centers from two industries, namely telecommunication and financial & banking industries. However, it is assuming that there is a large population of call centers and the researcher does not know the exact amount of the call centers in both industries. Thus, the number of survey that was distributed to the organizations are calculated based on the above parameters calculation.

Upon the recommendation of the companies, the questionnaire was revised by adjusting some questions to be suitable for particular company. Based on the calculation, 480 survey questionnaires were sent to both companies after the complete revision. A total of 960 survey questionnaires was sent to the Human Resources Department of the participating organizations. The questionnaires were randomly distributed by the two

companies' human resource officers to call center agents who agreed to answer the questionnaire during lunch and/or break time. The data collection was conducted between August 2014 and December 2014. To ensure the questionnaires are completed and returned, instructions were clearly stated on the cover page of the questionnaire. One of the instructions stated that a 10 baht donation for each questionnaire completed would be given to the 'Foundation for The Welfare of The Crippled'.

#### 4.2.4 Scale and measurement development

The measurements used in this present study were adopted from the studies in the areas of service, organizational behavior, and psychology. All constructs were tested for confirmatory factor analysis and coefficient alpha in order to assess their psychometric properties and internal consistency (Churchill, 1979). The details of operationalization for all constructs presented in the proposed model are explained in the following parts.

##### *Employees' service recovery performance*

Employees' service recovery performance was defined based from Babakus et al. (2003). Service recovery performance refers to employees' perceptions of their abilities and actions to resolve a service failure to the customer's satisfaction (Babakus et al., 2003). In line with the definition, this study decided to assess the construct by adopting the measurement scale of Boshoff and Allen (2000). Four items in the questionnaire were designed to tap respondents' perception on their own abilities and actions to resolve a service failure to the satisfaction of the customer. Babakus et al. (2003) assessed the four items via exploratory and confirmatory factor analysis to address the validity. The level of reliability was accepted, which exhibited Coefficient Alpha equal to 0.82. Recently, a good reliability of the measurement was also demonstrated in the study of Kim et al. (2012) that shows Cronbach's  $\alpha$  value of 0.846. To measure employees' service recovery performance, the respondents were asked to indicate the degree to which the items closely represent their attitudes and behaviors. The response is on a seven-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree". The survey items for employees' service recovery performance are

presented in Table 3.

*Table 3: Item-scale for employees' service recovery performance*

Scale items for Employees' service recovery performance (SRP)
1) Considering all the things I do, I handle dissatisfied customers quite well.
2) I do not mind dealing with complaining customers.
3) No customer I deal with leaves with problems unsolved.
4) Satisfying complaining customers is a greater thrill to me.

### *HR practices*

Human resource is considered as a crucial mechanism that develops and sustains competitive advantage for firms, especially the call centers in a service industry (Little & Dean, 2006; Prahalad & Hamel, 1990; Schneider & Bowen, 1993). Pfeffer and Veiga (1999) initiated a bundle of HR practices that expected to impact on performance. Many researchers stressed the importance of synergistic mechanism among multiple human resource practices or the collective interaction of HR practices that affect employee and organization's performance (Combs et al., 2006; Whitener, 2001). Therefore, as a basis for this analysis, the overall level of HR practices was used. Recently, Alfes et al. (2013) adopted item scale developed by Gould-William and Davies (2003; 2005) with the internal consistency of 0.77. The list of items scale measuring HR practices in this study was adopted from Gould-William (2003; 2005). The respondents were asked to indicate the extent to which they strongly disagree or agree with each statement and aggregated the perception score to give a total measure of HR practices. The items scale is presented in the table below.

Table 4: Item-scale for HR practices

Scale items for perceived on HR practices	
1)	I am provided with sufficient opportunities for training or development.
2)	This department keeps me informed about business issues and about how well it is doing.
3)	There is a clear status difference between management and staff in this department.
4)	This department attempts to make jobs as interesting and varied as possible.
5)	Team working is strongly encouraged in our department.
6)	A rigorous selection process is used to select new recruits.
7)	I feel my job is secure.
8)	When new management positions come up, the department normally tries to fill them with people from within the department or authority rather than recruiting from outside.
9)	This department tries to relate your pay with your performance in some way.
10)	I feel fairly rewarded for the amount of effort I put into my job.
11)	Management involves people when they make decisions that affect them.

*Perceived supervisory support*

Perceived supervisor support (PSS) is a general view of employees about the degree to which their supervisors value their contributions, and care about their well-being (Kottke & Sharafinski, 1988). Supervisors could show their personal consideration by asking their subordinates how they can help their job to be better or to instill fair methods (Maertz et al., 2007). Following Rhoades et al. (2002) and Coyle-Shapiro & Conway (2005), the current study used seven items with the highest factor loading (coefficient alphas .95) that was developed by Eisenberger et al. (1986) to measure perceived organizational support. The statements are re-worded by replacing organization with supervisor. Later, Eisenberger et al. (2002) conformed the procedure in assessing perceived supervisory support suggested by Rhoades et al. (2002). All the items loaded into a single-factor scale with the acceptable internal consistency

(Cronbach's alpha of 0.89). In the current study, the items were rated on a 7-point scale ranging from strongly disagree to strongly agree. The list of items scale is presented in Table 5.

*Table 5: Item-scale for perceived supervisory support*

Scale items for Perceived supervisor support (PSS)	
1)	My supervisor cares about my well-being.
2)	My supervisor values my contributions to the organizational well-being.
3)	My supervisor cares about my opinions.
4)	My supervisor considers my goals and values.
5)	My supervisor cares about my general satisfaction at work.
6)	My supervisor is willing to help me when I need a special favor.
7)	My supervisor shows very little concern for me. (Reverse code)

#### *Big Five personality traits*

Big Five personality traits acted as the moderating variable in this study. There are several sets of instruments that have been developed to measure the Big Five dimensions. The most comprehensive instrument is the NEO Personality Inventory-Revised (NEO-PI-R) scales (McCrae & Costa, 1997). The NEO PI-R is a self-report personality inventory consisting of 240 items answered on a 5-point Likert scale. Other well-established and widely used instruments are 60-item NEO Five-Factor Inventory (NEO-FFI), 100 Trait-Descriptive Adjectives (TDA) (Lewis R. Goldberg, 1992), and 44-item Big-Five Inventory (BFI).

International Personality Item Pool (IPIP), a public-domain personality resource developed by Goldberg (1992), is now becoming popular as a viable alternative to the commercial personality inventories. The IPIP comprises different versions of widely used inventories such as the availability of 50, 100, or full 240-item questionnaire. Currently, the items have been translated from English into more than 25 languages as well as the rate of publications using IPIP scales has been increasing rapidly (Zheng et

al., 2008). The items reached adequate levels of convergence with widely used Big-Five measures in self, observer, and peer reports; test-retest reliability; patterns of predicted external correlates; and convergence between self and observer ratings (Lewis R. Goldberg et al., 2006). Following Petrou and Kouvoen (2011) who study the role of personality based on social exchange theory, the current study adopted item scales from Goldberg (1999) to measure Big Five personality traits. The list is shown in the following table. The alpha reliabilities of each personality traits were tested by Petrou and Kouvoen (2011), which are also provided in the table. The summary of all construct's definition, operationalization, and the reliability results from pilot test are presented in Table 7.



Table 6: Item-scale for personality traits

<b>Extraversion</b>		<b>Cronbach's alphas .74</b>
Am the life of the party	Have little to say. (R)	
Don't talk a lot. (R)	Talk to a lot of different people at parties	
Feel comfortable around people	Don't like to draw attention to myself (R)	
Keep in the background (R)	Don't mind being the center of attention	
Start conversations	Am quiet around strangers (R)	
<b>Conscientiousness</b>		<b>Cronbach's alphas .74</b>
Am always prepared	Leave my belongings around (R)	
Like order	Shirk my duties (R)	
Pay attention to details	Make a mess of things. (R)	
Follow a schedule	Am exacting in my work	
Get chores done right away	Often forget to put things back in their proper place. (R)	
<b>Agreeableness</b>		<b>Cronbach's alphas .75</b>
Have a soft heart	Take time out for others	
Am interested in people	Insult people (R)	
Sympathize with others' feelings	Am not really interested in others (R)	
Make people feel at ease	Feel little concern for others (R)	
Feel others' emotions	Am not interested in other people's problems (R)	
<b>Emotional Stability</b>		<b>Cronbach's alphas .85</b>
Am relaxed most of the time	Get upset easily (R)	
Seldom feel blue	Change my mood a lot (R)	
Worry about things (R)	Have frequent mood swings (R)	
Get stressed out easily (R)	Get irritated easily (R)	
Am easily disturbed (R)	Often feel blue (R)	
<b>Openness to Experiences</b>		<b>Cronbach's alphas .74</b>
Have a rich vocabulary	Have a vivid imagination	
Am quick to understand things	Have excellent ideas	
Use difficult words	Do not have a good imagination (R)	
Spend time reflecting on things	Am not interested in abstract ideas (R)	
Am full of ideas	Have difficulty understanding abstract ideas (R)	

Note: (R) is denoted as reverse code.

Table 7: Summary of construct's definition and operationalization

<b>Construct</b>	<b>Definition</b>	<b>Operationalization</b>	<b>Reliability</b>
Employees' service recovery performance	The degree of employees' perceptions of their abilities and actions to resolve a service failure to the customer's satisfaction(Babakus et al., 2003).	A 4-item scale that measure employees' service recovery performance adopted from Boshoff and Allen(2000).	.846
HR practices	The degree of employee perception toward employment practices that concerned on how people are employed and managed in the organization (e.g. employment security, selective hiring, training, and development etc.)(Gould-Williams, 2003; 2005).	11-item scale that measure HR practices adopted from Gould-William(2003; 2005).	.77
Perceived Supervisory support	The degree to which employee perceive that their supervisors offer support, encouragement, and concern toward the employees(Babin & Boles, 1996).	7-item scale that measure perceived support from supervisory adopted(Eisenberger et al., 2002; Rhoades & Eisenberger, 2002) from perceived organizational support developed by Eisenberger, Huntington, Hutchison, and Sowa(1986).	.89
Big-Five personality traits	The factors inside people that explain their behavior(MacKinnon & Hunt, 1944).	50-item scale adopted from Goldberg(1999) measure each personality trait. <ul style="list-style-type: none"> <li>- Extraversion</li> <li>- Conscientiousness</li> <li>- Agreeableness</li> <li>- Emotional Stability</li> <li>- Openness to experience</li> </ul>	.74 .74 .75 .85 .74



#### 4.2.5 Data collection method

A self-administered survey was chosen as a tool for data gathering because it provides a quick, inexpensive, and efficient way in gathering information about individual's perspectives (Zikmund & Babin, 2007). Moreover, prior quality management researchers declared that questionnaire is a popular data collection method in quality management studies (Bavagnoli & Perona, 2000; Lakhali, Pasin, & Limam, 2006). All employees were invited to take part in the survey. A sample survey questionnaire could be found in Appendix A. Table 8 summarized the structure of the questionnaire.

Table 8: Summary for questionnaire structure

Section	Content	Question no.	Scale
1	Employees' service recovery performance and its antecedents:  (1) HR practices; and (2) Perceived supervisory support	1- 4  1 - 11 1 - 7	7-point Likert scale
2	Big Five personality traits	1-50	7-point Likert scale
3	Respondent's profile	1-8	Nominal/ Ordinal or fact

The first section contained questions regarding how employees perceived themselves in service recovery performance. Next section contained independent variables that may influence service recovery performance that were derived from literature review of perceived HR practices and perceived supervisory support. Part I and II questions were in seven-point Likert scale rating from "1 = strongly disagree" to "7 = strongly agree" and reverse recoding method was applied in perceived supervisory support and personality traits questions. The last section is the respondent profile questions. It includes demographic data such as age, gender, the number of the year working, position, and income etc. The questions in the last part cover nominal scale, ordinal scale by using closed-end questions.

Since most of the respondents are Thais, the questionnaire was prepared in both English and Thai versions. Back-to-Back translation or translation verification was used (Zikmund & Babin, 2007). The question items were originally developed in English and translated to Thai by a bilingual speaker; then, it was translated back to English to ensure that the content and meaning matched both versions (see Appendix B).

#### *4.2.6 Analytical strategy*

After data collection, several important statistical techniques were employed for data analysis, such as frequency testing, exploratory factor analysis, reliability test, and multiple regression analysis. Multivariate techniques were used to analyze employees' service recovery performance that can be influenced by HR practices and perceived supervisory support as well as the moderating effects from Big Five personality traits. Furthermore, Statistical Programme for Social Sciences (SPSS) was used for computing descriptive and inferential statistics.

##### *Descriptive analysis*

A descriptive approach was used to collect demographic data from the respondents to assess gender, age, education level, tenure, job position, and type of firm. The mean and standard deviation for each variable was determined. The objective of finding the mean was to measure central trend whereas the standard deviation showed how much variation exists in respondents' answers in comparison to the mean. Both data allows for the verification of normal distribution that is used for correlation and regression analysis.

##### *Multiple regression analysis*

Regression analysis is a statistical technique that can be used to analyze the relationship between a single dependent variable and single or a set of independent variables. The objective of regression analysis is to predict or explain a single dependent variable from the knowledge of one or more independent variables (Hair, Black, Babin, & Anderson,

2010). Multiple regression was employed to test the relationship in hypotheses 1 and 2 as well as the moderating effect in hypotheses 3 to 12.

Moderating effect occurs when the moderator variable, a second independent variable, changes the form of the relationship between another independent variable and dependent variable (Hair, Black, Babin, & Anderson, 2010, p. 180). In this study, Big Five personality traits were proposed as the moderator variables that would affect the relationship between perceived HR practices or perceived supervisory support and employees' service recovery performance.

In hypotheses (H3-H12), the moderating effect results from the multiplication of the independent and moderator variables. This moderating effect is highlighted when the regression coefficient of the interaction term is significant and confirmed when the coefficient of regression associated to the interaction term is significant ( $p < .05$ ) (Aiken & West, 1991).

#### *Preliminary analysis*

Preliminary data screening and assumptions need to be tested before testing the hypotheses. In reality, datasets might contain errors, inconsistencies in responses, outliers, and missing values. Preliminary data screening helps to identify and remedy potential problems. Multiple preliminary analyzes were conducted in the context of this study, including reliability analysis, descriptive statistics, and correlation analysis. Besides, assumptions for regression need to be addressed prior to running the analysis. The assumptions that were examined are linearity, homoscedasticity, independence of the residuals, and normality distribution (Hair et al., 2010).

#### **4.3 Pilot test**

A pilot study was conducted to serve as a guide for a larger study in refining measurement tools and reducing the risk of flaws in the actual study (Zikmund & Babin, 2007). To avoid respondents' misunderstanding a particular question, skipped a series

of questions, or misinterpreted the instructions for filling out the questionnaire, all set of questions was carefully observed by other research professionals and pretest with a group of respondents. According to Hertzog(2008), 35 to 40 participants would be preferable in estimating reliability or discriminating an item. A pilot test of Thai translation was also conducted. A total of 50 survey questionnaires were sent to frontline employees working in a hospital. The participants included all the customer-contact employees who agreed to participate in the pilot test. Cronbach's alpha was tested in quantitative data that accept only the alpha if it is close to or exceed the recommended critical point of 0.60 (Nunnally & Bernstein, 1994). Below shows the table that summarized the reliability alpha for all variables tested in this pilot test. The results of Cronbach's alpha were acceptable ( $> 0.60$ ) for all variables in the study.

*Table 9: Summary of the reliability analysis for pilot test*

<b>Variable</b>		<b>Number of Items</b>	<b>Cronbach's alpha</b>
Employees' service recovery performance	SRP	4	.684
HR practices	HR	11	.813
Perceived supervisory support	PSS	7	.934
Extraversion	EX	10	.724
Agreeableness	AGR	10	.856
Conscientiousness	CON	10	.757
Emotional stability	ES	10	.818
Openness to experience	OTE	10	.659

#### **4.4 Control variables**

In order to estimate the effect of how independent variables virtuously influence dependent variable, some potential confounders need to be controlled. A set of variables needs to be included in the test to eliminate any alternative explanation. Demographic variables were included in the examination for the purpose of providing a rigorous test of the proposed theoretical linkage. The study supports the argument made by Babakus et al.(2003). They argued that some demographic variables such as gender, age, and tenure might correlate with employees' service recovery performance. Moreover,

differences in firm types could also influence service recovery performance (Augusto de Matos et al., 2007). Therefore, four control variables were added into the regression to rule out alternative explanations from the findings.

#### **4.5 Methodology: Conclusion**

This chapter provided step by step details about the research methodology used in this study. This chapter included an explanation of research method and research design such as research setting and sampling size, scale and measurement development, questionnaire design, and data analysis. All measurement items in questionnaire survey were derived from previous literature review. The reliability results from the pilot test were achieved and presented. The outline of techniques for data analysis was also presented at the end of this chapter.

## CHAPTER 5

### DATA ANALYSIS

In this chapter, results from data analysis are presented. It starts with an explanation on data preparation and response rate. It is then followed by the respondents' profile information, and descriptive statistics. The assessment of construct reliability, regression's assumption check and proposed hypotheses are then presented. In addition, results from multiple regression are explained in order to investigate the moderating effect of personality traits. The results of hypothesis testing and conclusion are summarized in the final section.

#### 5.1 Data preparation

From the 960 survey questionnaires distributed, six hundred were returned. Of the 600 questionnaires returned, 67 were omitted since 45 of which were incomplete and 22 were left blank. This produced a total of 533 usable responses which accounted for a 55.52% response rate. This usable survey generally falls well above the calculation for sample size in Chapter 4 ( $n = 480$ ). Data was coded using relevant abbreviation to the variables (see Table 20) and was keyed into SPSS version 21.0.

#### 5.2 Respondent profiles

Descriptive statistics describe the main characteristics of respondents. The respondents were mostly female (79 percent), single (75 percent) and holding bachelor degrees (94.6 percent). Respondents were represented across all age groups with 26.4 percent were less than 25 years old, 37.5 percent between the ages of 26 and 30, and 36 percent were 31 years old and above. Thirty-six percent of respondents work as a call center agent for less than a year while 35 percent work for 1 to 3 years and 29 percent work for more than 3 years.

*Table 10: Demographic profile of respondents*

Demographic Characteristics	Values	n	Percentage
Gender	Male	113	21.2
	Female	420	78.8
Age (year)	Less than 25	140	26.4
	26 – 30	200	37.5
	31 – 35	97	18.2
	36 – 40	85	15.9
	More than 40	11	2
Tenure (year)	Less than 1	194	36.4
	1 – 3	186	34.9
	More than 3	153	28.7
Status	Single	402	75.4
	Married	105	19.7
	Divorce	26	4.9
Position	Part-time	5	1.0
	Full-time	528	99.0
Education	High School	21	3.9
	Bachelor degree	504	94.6
	Master degree	8	1.5
Industry	Telecommunication	212	39.8
	Financial & Banking	321	60.2

### 5.3 Validity

Validity needs to be assessed in order to confirm that the scale items in the study measure what they are supposed to measure. The validity assessment was established both non-statistically and statistically. Content validity is the non-statistic type of validity that aims to determine whether the items correspond to the conceptual definition of the construct. Since all the item scales were based on well-established measure in the literature being used in previous research, therefore, content validity was achieved (Haynes, Richard, & Kubany, 1995). But in order to measure statistic type validity (construct validity), all constructs were explored by factor analysis.

Convergent validity was assessed by factor analysis, extracted variance, and construct reliability. The exploratory factor analysis with varimax rotation was performed to confirm if the number of constructs can be verified empirically (Churchill, 1979). Factor analysis was used to determine if the data were consistent with the conceptualized measurement by putting all the items into factor analysis and inspect factor loading

pattern. Factor loading is the extent to which the measurement items are related to the underlying constructs.

Convergent validity is established when items in each factor are (1) highly loaded on their target factors; (2) highly correlated among themselves; and (3) relatively low correlations with other factors. The result of factor analysis was also used for examining unidimensionality of items in order to demonstrate that the items are identically measuring the same thing (Hair et al., 2010). Orthogonal varimax rotation is recommended as it helps simplify and give a clearer separation of the factors. Measurements with low loading ( $< 0.50$ ) and communalities ( $< 0.40$ ) are eliminated (Hair et al., 2010). Moreover, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of Sphericity need to be assessed before conducting factor analysis. The KMO determined whether the data is adequate to do the factor analysis. Hair et al. (1995) suggested the value of KMO less than 0.50 is unacceptable while the Bartlett's test of Sphericity should be statistically significant with a p-value less than 0.05 that indicate a significant correlation among the items. The results of measurement validity for 7 constructs were illustrated in Table 11 to 19.

### *Service recovery performance*

*Table 11: Factor analysis of employees' service recovery performance*

Constructs	Question items	Component	Communalities
		1	
Employees' service recover performance	SRP1	.854	.728
	SRP2	.838	.702
	SRP3	.819	.671
	SRP4	.652	.424

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1 component = 63.15%  
 KMO measure = .780; Bartlett's test: p-value = 0.000

The result of exploratory factor analysis on Table 11 shows that all items of service recovery performance construct are loaded into one factor. Cumulative percentage of



variance is 63.15 percent. Hair et al. (2010) suggested that a common consider the explained cumulative percentage of variance that accounts for 50 – 60 percent as satisfactory. The KMO measure indicates adequate sampling for factor analysis (0.780) while the Bartlett's test shows statistic significant at p-value < 0.01. The communalities column shows that all items achieved the minimum threshold (> 0.40). Thus, all four items well explained the service recovery performance construct.

### *HR practices*

*Table 12: Factor analysis of perceived HR practices*

Constructs	Question items	Component		Communalities
		1	2	
HR practices	HR1	.743		.559
	HR2	.774		.603
	HR3		.939	.882
	HR4	.731		.535
	HR5	.703		.495
	HR6	.701		.509
	HR7	.686		.537
	HR8	.644		.416
	HR9	.816		.689
	HR10	.763		.623
	HR11	.751		.656

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 2 components = 59.143%  
 KMO measure = .900; Barlett's test: p-value = 0.000

The results of exploratory factor analysis of HR practice show that 10 items of 11 loaded into one component whereas only one item (HR3) loaded into the second component. When the items are loaded into more than one component, it is needed to select one factor to act as a surrogate variable (Hair et al., 2010) (Hair et al., 2010). The surrogate variable is a selection of a set of a variable or a single variable with the highest factor loading to represent a factor in the data reduction stage. In this case, although HR3 shows the one highest loading, only one factor cannot represent the whole HR practices. As such, HR3 was excluded from the analysis. The exploratory factor analysis was performed again to check the validity of the construct after excluding one item (HR3) out (see Table 12).

Table 13: The second round of factor analysis for perceived HR practices

Constructs	Question items	Component	Communalities
		1	
HR practices	HR1	.723	.522
	HR 2	.755	.570
	HR 4	.728	.530
	HR 5	.694	.482
	HR 6	.713	.508
	HR 7	.716	.513
	HR 8	.634	.402
	HR 9	.831	.690
	HR10	.786	.617
	HR11	.786	.618

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1 component = 54.525%  
 KMO measure = .902; Barlett's test: p-value = 0.000

The communalities for all items loaded in the first component achieve the minimum threshold ( $> 0.40$ ). Furthermore, the KMO indicates a satisfactory measure (0.902) with the Barlett's p-value  $< 0.01$  and the communalities are achieved for all items. Hence, all items HR1, HR2, and HR4 to HR11 are computed to find the average score to create the variable.

#### *Perceived supervisory support*

Table 14: Factor analysis of perceived supervisory support

Constructs	Question items	Component	Communalities
		1	
Perceived supervisory support	PSS1	.894	.799
	PSS2	.914	.836
	PSS3	.909	.827
	PSS4	.925	.856
	PSS5	.906	.821
	PSS6	.872	.760
	PSS7	.658	.433

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1 component = 76.16%  
 KMO measure = .938; Barlett's test: p-value = 0.000

The exploratory factor analysis for perceived supervisory support construct in Table 14 resulted similar to dependent variable as all items are loaded into only one factor. The cumulative percentage of variance is satisfied which is greater than 50 percent threshold and these seven items can significantly explain the construct with acceptable KMO (.923) and the Barlett's test of p-value of less than 0.01. As such, all seven items will be computed to create perceived supervisory support construct in this study.

### ***Big-Five personality traits***

The exploratory factor analysis for each five personality traits construct extracted into more than one component (see Appendix C); thus, the items that were loaded into the first component and the items that the value of communalities achieved minimum threshold were chosen to compute for the variables. The following tables show the results of the second round of exploratory factor analysis for each personality traits after excluding unsatisfied items.

#### *Extraversion*

*Table 15: Factor analysis of extraversion*

Constructs	Question items	Component	Communalities
		1	
Extraversion	EX1	.808	.624
	EX2	.722	.536
	EX3	.752	.557
	EX4	.819	.631

Note:

Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1 components = 60.248%  
 KMO measure = .773; Barlett's test: p-value = 0.000

The KMO measure indicates satisfactory score of 0.773, as well as the Barlett's test, shows significant p-value of less than 0.01. The four items (EX1 – EX4) loaded into one component and the communalities for all four items achieved the minimum threshold. As a result, these four items, EX1, EX2, EX3, and EX4, are computed to create a variable representing extraversion construct in this study.

### *Conscientiousness*

*Table 16: Factor analysis of conscientiousness*

Constructs	Question items	Component	Communalities
		1	
Conscientiousness	CON1	.744	.544
	CON 2	.663	.440
	CON 3	.746	.557
	CON 4	.660	.436
	CON 5	.716	.513
	CON 6	.695	.483

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1 components = 50.0%  
 KMO measure = .853; Barlett's test: p-value = 0.000

The exploratory factor analysis for conscientiousness extracted into one component with 50 percent of total variance explained. The KMO measure indicates satisfactory score of 0.853, as well as the Barlett's test shows significant p-value of less than 0.01. All of the items achieved satisfactory factor loading ( $> 0.60$ ) and communalities level ( $> 0.40$ ). Thus, CON1 – CON6 items were computed to create the conscientiousness construct in this study.

### *Agreeableness*

*Table 17: Factor analysis of agreeableness*

Constructs	Question items	Component	Communalities
		1	
Agreeableness	AGR1	.610	.477
	AGR 2	.797	.634
	AGR 3	.746	.556
	AGR 4	.686	.470
	AGR 5	.787	.619
	AGR 6	.736	.542

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1 components = 53.216%  
 KMO measure = .860; Barlett's test: p-value = 0.000

For Agreeableness construct, the KMO measure got acceptable criteria (.860) while the Barlett's test also obtained statistically significant p-value of less than 0.01. The 6 items loaded into the first component namely: AGR1, AGR2, AGR3, AGR4, AGR5, and

AGR6. These six items achieved both minimum thresholds of factor loading ( $> 0.60$ ) and communalities ( $>0.40$ ). Hence, these 6 items are computed to create a variable represent agreeableness construct in this study.

### *Emotional stability*

*Table 18: Factor analysis of emotional stability*

Constructs	Question items	Component	Communalities
		1	
Emotional stability	ES 7	.852	.718
	ES 8	.854	.713
	ES 9	.804	.633
	ES 10	.708	.439

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1components = 65.090%  
 KMO measure = .785; Barlett's test: p-value = 0.000

All of the 4 items (i.e. ES7, ES8, ES9, and ES10) achieved a minimum threshold of factor loading ( $> 0.60$ ) and was found a significant loading in one component. The total of 4 items (ES7 – ES10) was computed to create the variable. Moreover, the cumulative percentage of variance for emotional stability is satisfied which is greater than 50 percent threshold and the Barlett's test of p-value of less than 0.01.

### *Openness to experience*

*Table 19: Factor analysis of openness to experience*

Constructs	Question items	Component	Communalities
		1	
Openness to experience	OTE 2	.748	.560
	OTE 6	.777	.604
	OTE 7	.805	.648

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 1components = 60.40%  
 KMO measure = .657; Barlett's test: p-value = 0.000

Lastly, for openness to experience construct, the exploratory factor analysis of the 3 items (i.e. OTE 2, OTE6, and OTE7) extracted into one component. KMO measure got acceptable criteria (.657) while the Barlett's test also obtained statistically significant p-value of less than 0.01. All of the 3 items achieved a minimum threshold of factor

loading ( $> 0.60$ ). Hence, OTE 2, OTE 6, and OTE7 are computed to create a variable represent agreeableness construct in this study.

In summary, the results of the exploratory factor analysis for service recovery performance, HR practices, perceived supervisory support, extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience were implemented. All 8 variables were created based on the output from factor analysis. All of the constructs achieved a cumulative percentage of variance that accounts for 50 percent and the KMO measure indicated adequate sampling for factor analysis with the statistic significant of Bartlett's test at  $p\text{-value} < 0.01$ . Table 21 and 22 below summarized all the measurement items that represented each variable in this study as well as the Cronbach's alpha were presented. Cronbach's alpha coefficient was used to assess the internal consistency. Nunnally and Bernstein (1994) suggested an acceptable alpha should be higher than 0.60. Table 20 - 22 summarized the value of internal consistency for all variables. All of the scales were found to be sufficiently achieving an acceptable level of reliability ( $> 0.60$ ).

*Table 20: Summary of measurement items and reliability*

Variable		Number of Items	Items	Cronbach's alpha
Employees' service recovery performance	SRP	4	SRP 1 – 4	.789
HR practices	HR	10	HR 1,2,4 – 11	.906
Perceived supervisory support	PSS	7	PSS 1 – 7	.944
Extraversion	EX	4	EX 1- 4	.779
Conscientiousness	CON	6	CON 1 – 6	.792
Agreeableness	AGR	6	AGR 1- 6	.818
Emotional stability	ES	4	ES 7 – 10	.820
Openness to experience	OTE	3	OTE 2, 6, 7	.669

Table 21: Summary of factor loading for all items

Variables	Factor loading
<b>Employees' service recovery performance</b>	
Mean = 5.311 SD = 0.897 $\alpha$ = 0.789	
Considering all the things I do, I handle dissatisfied customers quite well.	0.854
I do not mind dealing with complaining customers.	0.838
No customer I deal with leaves with problems unsolved.	0.819
Satisfying complaining customers is a greater thrill to me.	0.652
<b>HR practices</b>	
Mean = 4.753 SD = 1.036 $\alpha$ = 0.906	
I am provided with sufficient opportunities for training or development.	0.723
This department keeps me informed about business issues and about how well it's doing.	0.755
This department attempts to make jobs as interesting and varied as possible.	0.728
Team working is strongly encouraged in our department.	0.694
A rigorous selection process is used to select new recruits.	0.713
I feel my job is secure.	0.716
When new management positions come up, the department normally tries to fill them with people from within the department or authority rather than recruiting from outside.	0.634
This department tries to relate your pay with your performance in some way.	0.831
I feel fairly rewarded for the amount of effort I put into my job.	0.786
Management involves people when they make decisions that affect them.	0.786
<b>Perceived supervisory support</b>	
Mean = 5.247 SD = 1.202 $\alpha$ = 0.944	
My supervisor cares about my well-being.	0.894
My supervisor values my contributions to its well-being.	0.914
My supervisor cares about my opinions.	0.909
My supervisor considers my goals and values.	0.925
My supervisor cares about my general satisfaction at work.	0.926
My supervisor is willing to help me when I need a special favor.	0.872
My supervisor shows very little concern for me. (Reverse code)	0.658
<b>Extraversion</b>	
Mean = 4.973 SD = 0.985 $\alpha$ = 0.779	
I am the life of the party.	0.808
I feel comfortable around people.	0.722
I start conversations.	0.752
I talk to a lot of different people at parties.	0.819

Table 22: Summary of factor loading for all items (Cont.)

Variables	Factor loading
<b>Conscientiousness</b>	
Mean = 5.451 SD = 0.762 $\alpha = 0.792$	
I am always prepared.	0.744
I pay attention to details.	0.663
I get chores done right away.	0.746
I like order.	0.660
I follow a schedule.	0.716
I am exacting in my work.	0.695
<b>Agreeableness</b>	
Mean = 5.456 SD = 0.776 $\alpha = 0.818$	
I am interested in people.	0.610
I sympathize with others' feelings.	0.797
I have a soft heart.	0.746
I take time out for others.	0.686
I feel others' emotions.	0.787
I make people feel at ease.	0.736
<b>Emotional stability</b>	
Mean = 5.287 SD = 1.258 $\alpha = 0.820$	
I change my mood a lot. (Reverse code)	0.852
I have frequent mood swings. (Reverse code)	0.854
Get irritated easily. (Reverse code)	0.804
I often feel blue. (Reverse code)	0.708
<b>Openness to experience</b>	
Mean = 4.623 SD = 1.027 $\alpha = 0.669$	
I have a vivid imagination.	0.748
I spend time reflecting on things.	0.777
I am full of ideas.	0.805
Note: $\alpha$ is Cronbach's alpha	

In conclusion, prior to preliminary analysis, the validity and reliability for all the measurement items were examined. The reliability was confirmed via the Cronbach's alpha coefficient which all constructs reached acceptable alpha value ( $> 0.60$ ) (Nunnally & Bernstein, 1994). Construct validity was found through factor analysis as illustrated above (Fornell & Larcker 1981).



#### 5.4 Preliminary Analyses

Before testing the hypotheses, descriptive analysis, normal distribution, and correlation were examined. Means, standard deviations for all variables in the study were assessed and presented in Table 23. Bivariate correlations among the variables in the study were also calculated (see Table 24) in order to investigate the relationship among the variables.

##### *Descriptive statistic of the variables*

Descriptive characteristics of all the variables are summarized in Table 23. The table reports mean, standard deviation, maximum, minimum, and a number of items for each variable in the current study.

*Table 23: Descriptive statistics*

Variable		Number of Items	Mean	SD	Max	Min
Employees' service recovery performance	SRP	4	5.287	1.258	7	3
HR practices	HR	10	4.753	1.036	7	1
Perceived supervisory support	PSS	7	5.247	1.201	7	1
Extraversion	EX	4	4.972	0.985	7	1
Agreeableness	AGR	6	5.456	0.776	7	3
Conscientiousness	CON	6	5.451	0.762	7	3.33
Emotional stability	ES	4	5.287	1.226	7	1
Openness to experience	OTE	3	4.634	1.027	7	1.67

The correlation coefficient displayed in Table 23 reported bivariate correlations among the constructs. The bivariate correlations showed the relative magnitude and direction of a linear relationship among the constructs (Hair et al., 2010). It could be seen from the table that the significant coefficients among constructs had low to moderate

correlations which were range from 0.105 to 0.510. Significant correlations in Table 23 suggest that HR practices, perceived supervisory support, and Big-Five personality traits relate to employees' service recovery performance. The results revealed how independent variables (i.e. HR practices and perceived supervisory support) and moderators (i.e. extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience) predict the dependent variable, which is the service recovery performance. However, the causal relationships from predictors to the outcome will be answered by using multiple regression analysis which will be explained in the next section.



Table 24: Correlation statistics for all constructs

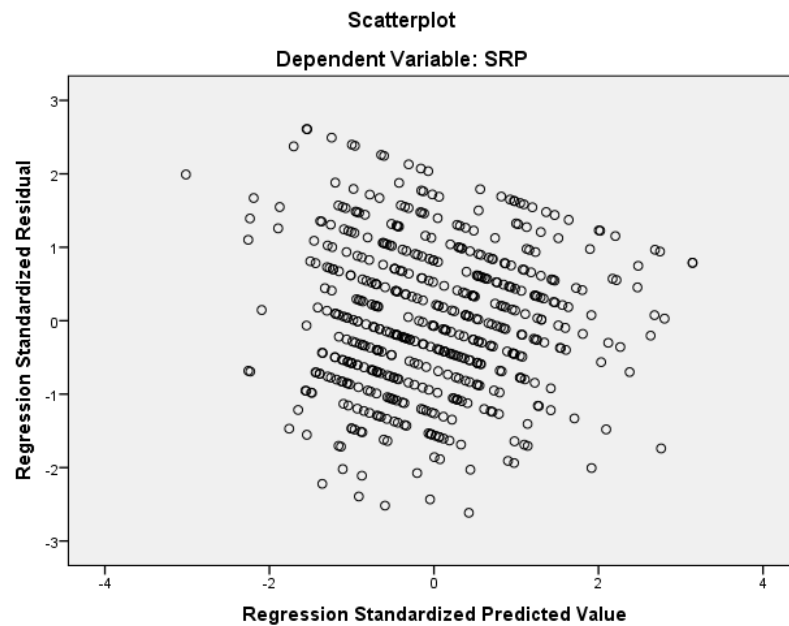
	<b>N = 533</b>	<b>Mean</b>	<b>SD</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>	<b>(9)</b>	<b>(10)</b>	<b>(11)</b>
(1) SRP		5.311	0.897	(.790)										
(2) HR practices		4.753	1.036	.273**	(.737)									
(3) PSS		5.247	1.201	.189**	.457**	(.868)								
(4) Extraversion		4.972	0.985	.342**	.190**	.181**	(.775)							
(5) Agreeableness		5.456	0.776	.510**	.171**	.230**	.625**	(.727)						
(6) Conscientiousness		5.451	0.762	.491**	.240**	.179**	.492**	.721**	(.707)					
(7) Emotional Stability		5.129	1.222	.188**	.214**	.193**	.071	.105*	.121*	(.804)				
(8) OTE		4.623	1.027	.248**	.064	.049	.330**	.485**	.446**	-.362**	(.776)			
(9) Gender		0.212	0.409	.138**	.040	.001	.019	.007	.021	.020	.013			
(10) Age		3.298	1.089	.079	.033	-.074	-.052	.045	.066	.056	.033	-.054		
(11) Tenure		2.384	1.617	.160**	.105*	-.145**	-.058	-.041	-.043	.154**	-.073	.078	.527**	
(12) Firm types		0.398	0.489	.125**	.218**	-.181**	-.082	-.097	-.047	.155**	-.104*	.207**	.281**	.742**

Note: SRP = Service recovery performance, PSS = Perceived supervisory support, OTE = Openness to experience, The numbers in the cells of diagonal line are the square root of AVEs. The numbers in the cells are correlation coefficients of one factor with another factor. \* denotes significance level of 0.05, \*\* denotes significance level of 0.01.

### **Regression analysis**

Multiple regression analysis was employed to examine hypotheses which will be described in the following section. The analysis involved two independent variables, five moderators, and one dependent variable. The independent variables include (1) HR practices and (2) Perceived supervisory support. The moderators contain five personality traits: (1) Extraversion; (2) Agreeableness; (3) Conscientiousness, (4) Emotional stability, and (5) Openness to experience. Lastly, the dependent variable is the employees' service recovery performance. Before the regression analysis, the regression assumption diagnostics are required. The assumptions to be examined are in four areas: (1) Linearity of the phenomenon measured; (2) Constant variance of the error terms (heteroscedasticity); (3) Independence of the errors terms; and (4) Normality of the error term distribution(Hair et al., 2010).

Hair et al. (2010) suggested plotting the residuals versus the dependent variable to identify the assumption violations for the overall relationship. Violations of each assumption can be identified by specific patterns of the residuals. The null plot is the only interest plot that indicates when all assumptions are met. Thus, the scatterplot of standardized residuals against the standardized dependent variable was created to examine for the evidence of substantial nonlinearity, heteroscedasticity, and dependence of error term. Figure 10 shows null plot exist from the current data set. The null plot illustrates the residuals falling randomly, with relatively equal dispersion about zero and no strong tendency to be either less or greater than zero. Moreover, the correlation matrix of the study variables in Table 24 revealed that predictor was significantly correlated with dependent variables and moderators. This significant correlation means that there was no severe violation of the linearity assumption.



*Figure 10: Graphical analysis of residuals*

For normality test, the diagnosis is to examine histogram of residuals, normal probability plots, and Kolmogorov-Smirnov test. The histogram of residuals also showed an approximately normal distribution; as well as the plotted residuals (P-P plot of residuals) displayed almost a straight diagonal line that represents a normal distribution. Unstandardized residual in Kolmogorov-Smirnov test indicated normality as p-value is insignificant which was greater than 0.5 ( $df = 533$ ). Runs test was performed to test for independent of errors; whereas Breush-Pagan and Koenker test illustrated that there is no heteroscedasticity existed in the study (see Appendix D). According to all diagnostic inspections, it is concluded that there was no violation of the assumptions of linearity, independence of errors, residual homoscedasticity, and normality.

### **5.5 Analysis of Hypotheses and Results**

All the hypotheses in this study were tested using multiple regression analysis. Regression was analyzed using SPSS version 2.1

**Hypothesis 1:** HR practices have a positive influence on employees' service recovery performance.

**Hypothesis 2:** Perceived supervisory support has a positive influence on employees' service recovery performance.

Hypotheses (H1 and H2) proposed that the more employees perceived the support by their employers via HR practices and supervisory support, the more they are likely to return to their employers in the form of service recovery performance. Thus, a multiple regression were conducted to test the positive influence of HR practices and perceived supervisory support toward service recovery performance of the employees.

Hypothesis 1:

$$\text{Service recovery performance} = \text{Intercept} + \beta_1 \text{ HR practices} + \beta_2 \text{ Gender} + \beta_3 \text{ Age} + \beta_4 \text{ Tenure} + \beta_5 \text{ Firm types} + \varepsilon$$

Hypothesis 2:

$$\text{Service recovery performance} = \text{Intercept} + \beta'_1 \text{ perceived supervisory support} + \beta'_2 \text{ Gender} + \beta'_3 \text{ Age} + \beta'_4 \text{ Tenure} + \beta'_5 \text{ Firm types} + \varepsilon$$

To test the hypotheses H1 and H2, all the control variables were entered into the first step and independent variable was entered into the next step. Results of multiple regression for both H1 and H2 are presented in Table 26 and 27.

Table 25: Regression analysis for hypothesis 1

Variables	Unstandardized Coefficient		Collinearity Statistic	
	B	Sig.	Tolerance	VIF
Intercept	5.045			
Control Variables				
Gender	.294	.002	.940	1.064
Age	.002	.960	.692	1.446
Tenure	.112	.004	.336	2.977
Firm types	-.205	.086	.397	2.519
Main effect				
HR practices	.234	.000	.945	1.058
R <sup>2</sup>	.111	Adjusted R2	.102	
F-test	(5, 527) = 13.139 p-value = 0.00			

Note: Dependent variable is Service recovery performance (SRP)

The test of regression for hypothesis 1 suggested that the employees' service recovery performance accounts for a significant amount of variation in HR practices. The R-square for the model is .111 indicating the model accounts for 11.1% of the observed variation in the service recovery performance. The ANOVA test of significance of the overall model produced an F-statistic test of 13.139 (5 and 527 degrees of freedom), with the p-value less than 0.01. H1 hypothesized that HR practices are positively and significantly influence service recovery performance. A positive coefficient for the HR practices (.234) in the regression model with a significant level of .01 supported this hypothesis. It is indicated that HR practices positively influences the level of service recovery performance among the employees. As such, hypothesis H1 is supported.

Table 26: Regression analysis for hypothesis 2

Variables	Unstandardized Coefficient		Collinearity Statistic	
	B	Sig.	Tolerance	VIF
Intercept	4.988			
Control Variables				
Gender	.268	.005	.938	1.066
Age	.009	.823	.691	1.446
Tenure	.092	.021	.338	2.957
Firm types	.025	.835	.409	2.445
Main effect				
Perceived supervisory support	.196	.000	.965	1.036
R <sup>2</sup>	.086	Adjusted R2	.078	
F-test	(5, 527) = 9.970 p-value = 0.00			

Note: Dependent variable is Service recovery performance (SRP)

For hypothesis 2, the test of regression indicated that service recovery performance also accounts for a significant amount of variation in perceived supervisory support. The R-square for the model is .086, which accounts for 8.6% of the observed variation in the service recovery performance. The ANOVA test for the significance of the overall model produced an F-statistic test of 9.970 (5 and 527 degrees of freedom), the p-value is 0.00.

Hypothesis 2 proposed that there is a positive influence between perceived supervisory support and service recovery performance. A positive coefficient for the perceived supervisory support (.196) in the regression model with a significant level of .01 supported this hypothesis. It is indicated that perceived supervisory support positively influence the level of employees' service recovery performance. This can be assumed that when employees' perceived high support from their supervisors, their service recovery performance also increases. Therefore, the results of the study supported Hypothesis 2.

### **The moderating role of personality traits on the relationship between HR practices and employees' service recovery performance**

**Hypothesis 3:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when extraversion is high.

**Hypothesis 5:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when conscientiousness is high.

**Hypothesis 7:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when agreeableness is high.

**Hypothesis 9:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when emotional stability is high.



**Hypothesis 11:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when openness to experience is high.

Hypotheses (H3, H5, H7, H9, and H11) proposed that personality traits (i.e. extraversion, conscientiousness, agreeableness, emotional stability and openness to experience) will moderate the relationship between HR practices and employees' service recovery performance. Thus, multiple regression analysis was conducted to test these moderating effects of personality traits on the relationship between HR practices and service recovery performance.

Hypothesis 3:

$$\text{Service recovery performance} = \text{Intercept} + \beta_1 \text{ HR practices} + \beta_2 \text{ Extraversion} + \beta_3 \text{ HR practices} \times \text{Extraversion} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon$$

Hypothesis 5:

$$\text{Service recovery performance} = \text{Intercept} + \beta_1 \text{ HR practices} + \beta_2 \text{ Conscientiousness} + \beta_3 \text{ HR practices} \times \text{Conscientiousness} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon$$

Hypothesis 7:

$$\text{Service recovery performance} = \text{Intercept} + \beta_1 \text{ HR practices} + \beta_2 \text{ Agreeableness} + \beta_3 \text{ HR practices} \times \text{Agreeableness} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon$$

Hypothesis 9:

$$\text{Service recovery performance} = \text{Intercept} + \beta_1 \text{ HR practices} + \beta_2 \text{ Emotional stability} + \beta_3 \text{ HR practices} \times \text{Emotional stability} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon$$

Hypothesis 11:

$$\text{Service recovery performance} = \text{Intercept} + \beta_1 \text{ HR practices} + \beta_2 \text{ Openness to experience} + \beta_3 \text{ HR practices} \times \text{Openness to experience} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon$$

The current study follows the instructions of Aiken and West (1991) to test the moderating role of personality traits. The independent variables were standardized prior to the interaction between variables to avoid problems of multicollinearity (Dawson, 2014). Multiple regression was performed to investigate whether personality traits (extraversion, conscientiousness, agreeableness, emotional stability, and openness to experience) moderate the relationship between HR practices and employees' service recovery performance. Multiple regression analyzes were generated which consist of the predictor (HR practices), moderators (Big-Five personality traits), and the interaction terms between HR practices and moderators.

In each of the analyzes, the control variables (e.g. gender, age, tenure, and firm types) were entered in Step 1 and the main effect (HR practices) was entered in Step 2, followed by moderators (extraversion, conscientiousness, agreeableness, emotional stability, and openness to experience) in Step 3. Lastly, the interaction term, calculated using standardized scores (e.g. HR practices x extraversion etc.) were entered in Step 4 (see Appendix E for each regression analysis). The results for the multiple regression models were further analyzed by examining the degree of the moderation effect of personality traits to the relationship between HR practices and employees' service recovery performance. The p-value and the unstandardized beta coefficients of the interaction of HR practices and personality traits were investigated to determine whether the moderation effect significantly influence employees' service recovery performance.

Table 27 summarized the results of moderated multiple regression analyzes for Hypothesis 3, 5, 7, 9, and 11. The table showed that the interaction term between HR practices and emotional stability was significant while the interaction between HR practices and others traits (extraversion, conscientiousness, agreeableness, and openness to experience) were not statistically significant. It indicates that only emotional stability moderates the relationship between HR practices and service recovery performance. The unstandardized coefficient of the interaction effect between HR practices and emotional stability was statistically significant from zero. The statistic significant coefficient of the interaction term (HR practices and emotional stability):  $\beta_3 = .072$  with p-value < 0.05. Thus, H9 was supported.

Unexpectedly, results of moderated multiple regression for H3, H5, H7, and H11 show that extraversion, conscientiousness, agreeableness, and openness to experience did not moderate the relationship between HR practices and service recovery performance. As demonstrated in Table 27 the unstandardized coefficient of the interaction term between HR practices and these four personality traits are not statistically significant from zero ( $p\text{-value} > 0.05$ ); indicating that there was no significant effect of the interaction between HR practices and personality traits (extraversion, conscientiousness, agreeableness, and openness to experience) on service recovery performance. As such, it can be concluded that hypotheses H3, H5, H7, and H11 were not supported.



Table 27: Moderated multiple regression analyses for hypotheses 3, 5, 7, 9, and 11

<b>Variables</b>	<b>H3</b>	<b>H5</b>	<b>H7</b>	<b>H9</b>	<b>H11</b>
<b>Intercept</b>	5.021	5.169	5.147	5.061	5.088
<b>Hypothesis 3</b>					
HR practices	.183**				
Extraversion	.276**				
HR practices x Extraversion	-.012 <sup>ns</sup>				
<b>Hypothesis 5</b>					
HR practices		.139**			
Conscientiousness		.417**			
HR practices x Conscientiousness		-.035 <sup>ns</sup>			
<b>Hypothesis 7</b>					
HR practices			.160**		
Agreeableness			.430**		
HR practices x Agreeableness			-.034 <sup>ns</sup>		
<b>Hypothesis 9</b>					
HR practices				.224**	
Emotional stability				.118**	
HR practices x Emotional stability				.072*	
<b>Hypothesis 11</b>					
HR practices					.223**
Openness to experience					.204**
HR practices x Openness to experience					-.004 <sup>ns</sup>
<b>Control Variables</b>					
Gender	.268**	.252**	.250**	.287**	.271**
Age	.014	-.046	-.030	.004	-.015
Tenure	.100**	.131**	.102**	.099**	.117**
Firm types	-.106	-.133	-.028	-.215	-.148
R <sup>2</sup>	.201	.310	.337	.133	.166
Adjusted R <sup>2</sup>	.190	.301	.328	.121	.155
Δ R <sup>2</sup>	-	.002	.001	.008	-
F	18.84**	33.72**	38.15**	11.46**	14.91**
Tolerance range	.335 -	.334 -	.334 -	.333 -	.336 -
VIF range	.980	.968	.951	.972	.976
	1.02 -	1.03 -	1.05 -	1.02 -	1.02 -
	2.98	2.99	2.99	3.00	2.97

Note: Dependent variable is Service recovery performance (SRP). \* denotes significance level of 0.05; \*\* denotes significance level of 0.01. ns denotes not significant.

**The moderating role of personality traits on the relationship between perceived supervisory support and employees' service recovery performance**

**Hypothesis 4:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when extraversion is high.

**Hypothesis 6:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when conscientiousness is high.

**Hypothesis 8:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when agreeableness is high.

**Hypothesis 10:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when emotional stability is high.

**Hypothesis 12:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when openness to experience is high.

Hypotheses (H4, H6, H8, H10, and H12) proposed that personality traits (i.e. extraversion, conscientiousness, agreeableness, emotional stability and openness to experience) will moderate the relationship between perceived supervisory support and employees' service recovery performance. Thus, multiple regression analysis was conducted to test the moderating effects of personality traits on the relationship between perceived supervisory support and service recovery performance.

Hypothesis 4:

$$\text{Service recovery performance} = \text{Intercept} + \beta_1 \text{ perceived supervisory support} + \beta_2 \text{ Extraversion} + \beta_3 \text{ perceived supervisory support} \times \text{Extraversion} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon$$

Hypothesis 6:

$$\begin{aligned} \text{Service recovery performance} = & \text{Intercept} + \beta_1 \text{ perceived supervisory support} + \beta_2 \\ & \text{Conscientiousness} + \beta_3 \text{ perceived supervisory} \\ & \text{support} \times \text{Conscientiousness} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} \\ & + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon \end{aligned}$$

Hypothesis 8:

$$\begin{aligned} \text{Service recovery performance} = & \text{Intercept} + \beta_1 \text{ perceived supervisory support} + \beta_2 \\ & \text{Agreeableness} + \beta_3 \text{ perceived supervisory support} \times \\ & \text{Agreeableness} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} + \beta_6 \text{ Tenure} + \\ & \beta_7 \text{ Firm types} + \varepsilon \end{aligned}$$

Hypothesis 10:

$$\begin{aligned} \text{Service recovery performance} = & \text{Intercept} + \beta_1 \text{ perceived supervisory support} + \beta_2 \\ & \text{Emotional stability} + \beta_3 \text{ perceived supervisory} \\ & \text{support} \times \text{Emotional stability} + \beta_4 \text{ Gender} + \beta_5 \text{ Age} \\ & + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon \end{aligned}$$

Hypothesis 12:

$$\begin{aligned} \text{Service recovery performance} = & \text{Intercept} + \beta_1 \text{ perceived supervisory support} + \beta_2 \\ & \text{Openness to experience} + \beta_3 \text{ perceived supervisory} \\ & \text{support} \times \text{Openness to experience} + \beta_4 \text{ Gender} + \beta_5 \\ & \text{Age} + \beta_6 \text{ Tenure} + \beta_7 \text{ Firm types} + \varepsilon \end{aligned}$$

Table 28 summarized the results of moderated multiple regression analyzes for Hypothesis 4, 6, 8, 10, and 12. The table presented that the interaction term between perceived supervisory support and emotional stability was significant while the interaction between perceived supervisory support and others traits (extraversion, conscientiousness, agreeableness, and openness to experience) were not statistically significant, indicating that only emotional stability moderates the relationship between perceived supervisory support and service recovery performance. The unstandardized coefficient of the interaction the effect of perceived supervisory support interact with emotional stability was statistically significant:  $\beta_3 = .088$  with p-value  $< 0.01$  while the interaction between perceived supervisory support and the rest of personality traits

(extraversion, conscientiousness, agreeableness, and openness to experience) were not significant from zero. Therefore, H4, H6, H8, and H12 were not supported.

Table 28: Moderated multiple regression analyses for hypotheses 4, 6, 8, 10, and 12

Variables	H4	H6	H8	H10	H12
<b>Intercept</b>	4.974	5.125	5.108	5.007	5.036
<b>Hypothesis 4</b>					
Perceived supervisory support	.149 <sup>**</sup>				
Extraversion	.291 <sup>**</sup>				
PSS x Extraversion	-.039 <sup>ns</sup>				
<b>Hypothesis 6</b>					
Perceived supervisory support		.130 <sup>**</sup>			
Conscientiousness		.429 <sup>**</sup>			
PSS x Conscientiousness		-.055 <sup>ns</sup>			
<b>Hypothesis 8</b>					
Perceived supervisory support			.096 <sup>**</sup>		
Agreeableness			.441 <sup>**</sup>		
PSS x Agreeableness			-.002 <sup>ns</sup>		
<b>Hypothesis 10</b>					
Perceived supervisory support				.196 <sup>**</sup>	
Emotional stability				.120 <sup>**</sup>	
PSS x Emotional stability				.088 <sup>**</sup>	
<b>Hypothesis 12</b>					
Perceived supervisory support					.194 <sup>**</sup>
Openness to experience					.217 <sup>**</sup>
PSS x Openness to experience					-.038 <sup>ns</sup>
<b>Control Variables</b>					
Gender	.247 <sup>**</sup>	.234 <sup>**</sup>	.235 <sup>**</sup>	.265 <sup>**</sup>	.244 <sup>**</sup>
Age	.021	-.039	-.024	.006	-.010
Tenure	.085 <sup>*</sup>	.118 <sup>*</sup>	.086 <sup>*</sup>	.082 <sup>*</sup>	.098 <sup>*</sup>
Firm types	.072	.012	.118	.018	.077
R <sup>2</sup>	.190	.309	.320	.115	.152
Adjusted R <sup>2</sup>	.179	.300	.320	.103	.140
Δ R <sup>2</sup>	.002	.004	-	.014	.003
F	17.54 <sup>**</sup>	33.51 <sup>**</sup>	35.23 <sup>**</sup>	9.721 <sup>**</sup>	13.39 <sup>**</sup>
Tolerance range	.338 – .989	.337 – .963	.338 – .996	.337 – .937	.338 – .983
VIF range	1.01 – 2.95	1.03 – 2.96	1.00 – 2.95	1.06 – 2.96	1.017 – 2.959

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

Regards to control variables, as mentioned previously, this study supported the argument made by prior researchers that some demographic variables might correlate with service recovery performance among the employees (Augusto de Matos et al., 2007; Babakus et al., 2003). As such, four control variables were included in the multiple regression analyses to eliminate the alternative explanations, namely: gender, age, tenure, and firm types. All the control variables were entered into the regression prior to the predictors. The significant and insignificant of control variables among twelve hypotheses show similar pattern in which gender and tenure were found statistically significant with employees' service recovery performance, except for age and firm types (see Table 25 – Table 28).

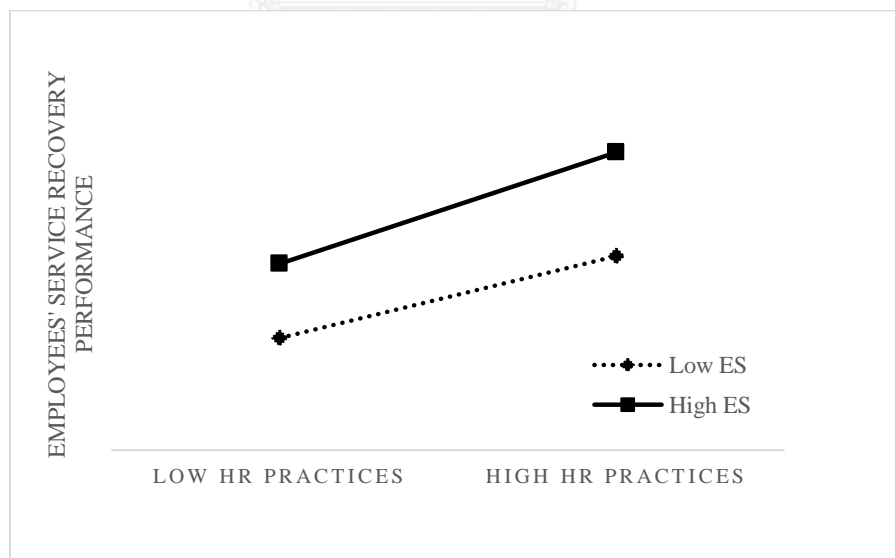
Consistent with the argument from prior researchers, the significant found in gender and tenure indicates that there is a positive relationship between the two control variables toward service recovery performance (Augusto de Matos et al., 2007; Babakus et al., 2003). It implies that there is a statistically significant difference in mean of employee's service recovery performance for males and females. Moreover, the positive significant found in tenure also implies that when the number of working years increases, the level of service recovery performance also increases.

In the opposite, the insignificant found in age and firm types indicated that there was no statistically significant difference in the mean of employees' service recovery performance between age groups and type of firms. The insignificant difference between type of firms imply that the homogeneity of variance was not violated in this samples from two service organizations. However, the insignificant found in age may due to the correlation that exist between the variables. The statistics correlation in Table 24 shows that age and tenure are moderately correlated to each other ( $r = .527$ ;  $p\text{-value} < .01$ ). It is a possibility that tenure can be a potential function of age; therefore, no prediction was found between age and employees' service recovery performance. Although age and type of firms are not statistically significant, both variables are still remain in the regression because failing to include these control variables in the regression models may give biased beta coefficient in the analysis (Hair et al., 2010).



### Plotting the interaction

To understand the form of interaction between internal service quality (HR practices and perceived supervisory support) and emotional stability, it was necessary to explore further. Aiken and West (1991) suggested follow-up analysis method to investigate the nature of the interaction. The follow-up analysis involved generating a graph to compare the relationship between HR practices/ perceived supervisory support and service recovery performance among one standard deviation less or above the mean of emotional stability (e.g.  $\bar{X} \pm 1$  SD). To generate the figure, it involves computing a series of algebraic equations to find points in order to create a line. Appendix F shows the summary table of statistic outputs that is needed to generate a graph of the main effects (HR practices and emotional stability) and the interaction on service recovery performance and the computations to create a graph of the significant interaction term. The following figure demonstrates the relationship between HR practices and employees' service recovery performance under the condition of high emotional stability and low emotional stability.

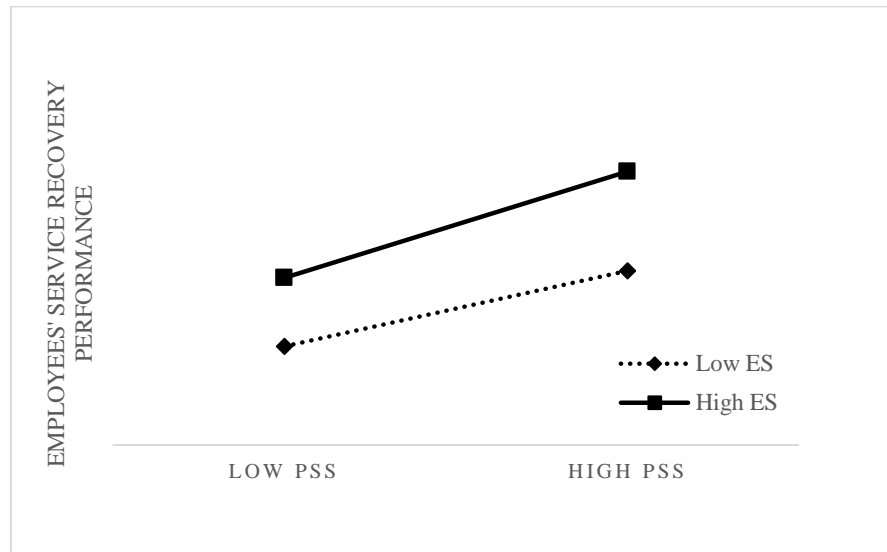


*Figure 11: The moderating effect of emotional stability on the relationship between HR practices and employees' service recovery performance*

A graph of interaction was consistent with the prediction. Figure 11 showed an enhancing effect of service recovery performance that resulted from the interaction between HR practices and emotional stability. The positive relationship between HR practices and employees' service recovery performance is stronger when emotional stability is high. In the other words, employees who perceived high support in HR practices with high emotional stability had the highest level of service recovery performance. Moreover, the simple slope was conducted to test the significant association between HR practices and service recovery performance at a particular value of emotional stability (Dawson, 2014).

Appendix F shows hand computation for simple slopes of moderation lines. The results indicated that the positive relationship for high emotional stability was significantly different from zero,  $t\text{-value} = 3.105$  ( $\beta = 0.695$ ,  $p < 0.01$ ). Besides, the positive relationship for low emotional stability was also significantly different from zero,  $t\text{-value} = 3.539$  ( $\beta = 0.514$ ,  $p < 0.01$ ). Examination of the interaction plot (Figure 11) showed the slope for high emotional stability is steeper than low emotional stability ( $\beta_{\text{High ES}} = 0.695 > \beta_{\text{Low ES}} = 0.514$ ). This pattern means that the relationship between HR practices and service recovery performance is stronger for employees' who report high in emotional stability. Hence, hypothesis H9 was supported.

For hypothesis H10, the follow-up analysis suggested by Aiken and West (1991) was implemented after regression analysis. The analysis involved creating interaction graph to compare the relationship between perceived supervisory support and service recovery performance at the different level of emotional stability. In such cases, Aiken and West (1991) advised as a guideline that researchers use the values corresponding to one standard deviation above and below the mean. A series of algebraic equations were then computed to generate a graph of the main effects and the interaction on service recovery performance (see Appendix G). The following figure demonstrates the relationship between perceived supervisory support and employees' service recovery performance under the particular values of high emotional stability and low emotional stability.



*Figure 12: The moderating effect of emotional stability on the relationship between perceived supervisory support and employees' service recovery performance*

The hand computation for simple slopes of moderating lines in Figure 12 is shown in Appendix G. The results indicated that the positive relationship for high emotional stability was significantly different from zero,  $t\text{-value} = 3.50$  ( $\beta = 0.774$ ,  $p < 0.01$ ). Likewise, the positive relationship for low emotional stability was also significantly different from zero,  $t\text{-value} = 3.85$  ( $\beta = 0.552$ ,  $p < 0.01$ ). Figure 12 illustrated that the slope for high emotional stability is steeper than low emotional stability which consists of the findings from simple slopes computation ( $\beta_{\text{High ES}} = 0.774 > \beta_{\text{Low ES}} = 0.552$ ). It can be summarized that the relationship between HR practices and service recovery performance is stronger for employees' who report high in emotional stability. Therefore, hypothesis H10 was found supported.

In summary, with regard to the moderating effect of personality traits, the hypotheses H3 and H4 (extraversion), H5 and H6 (conscientiousness), H7 and H8 (agreeableness), as well as H11 and H12 (openness to experience) were rejected, showing that these personality traits did not moderate the relationship between internal service quality (i.e. HR practices and perceived supervisory support) and employees' service recovery performance. Yet, the hypotheses H9 and H10 (emotional stability) were not rejected as it is confirmed that emotional stability moderated the relationship between internal

service quality (HR practices and perceived supervisory support) and employees' service recovery performance.

## 5.6 Chapter summary

This chapter provided details of the data analysis and results of the study. The total of 533 survey questionnaires was used for the analysis. Prior to the hypotheses testing, reliability, and construct validity were examined. Preliminary analysis was performed including descriptive analyses (i.e. means and standard deviations) and bivariate correlation analyses for all constructs. P-P plot and scatterplot indicated that no violation of the assumptions of linearity, residual homoscedasticity, and normality. Moreover, there is no violation in Collinearity when testing the multiple regression analyses. All the predictors achieved the accepted levels of multicollinearity. Table 25 to Table 28 indicate that all the value of tolerance is greater than 0.2 and all the value of VIF is less than 5 or 10 (O'brien, 2007).

Based on the service profit chain (Heskett et al., 1997) and social exchange theory (Blau, 1964), the study investigated whether the employees reciprocate after they perceived different support from their organization by putting their effort toward service recovery performance. The relationships between internal service quality (HR practices and perceived supervisory support) and employees' service recovery performance were tested. Moreover, this study also examined the moderating effects of 5 personality traits variables including extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience toward the relationship between independent variables (HR practices and perceived supervisory support) and dependent variable, which is the service recovery performance.

The proposed hypotheses H1 and H2 were supported that when employees perceived support from the organization, either by HR practices or supervisors, they reciprocated to their organization by service recovery performance. Additionally, the current study proposed further that these relationships can be moderated by personality traits. H3 –

H12 anticipated that Big-five personality traits will moderate the relationship between internal service quality and service recovery performance. However, only H9 and H10 were supported. The findings indicated that only emotional stability would moderate the relationships of service recovery performance. As a result, it can be concluded that emotional stability should be emphasized by the management since it is the only trait that reflects the reciprocity norm posited by social exchange theory. For further discussion, the results discussed above are used as a basis for the conclusion, implications, and recommendation in the next chapter.



## CHAPTER 6

### DISCUSSIONS AND FUTURE RECOMMENDATIONS

This chapter presents the conclusion of the current study. It begins with research conclusion, explaining how the research findings accomplished the objectives and research questions. It is then followed by the discussion of the study's theoretical contributions and managerial implications. The limitations and future recommendations are summarized in the final part of the chapter.

#### 6.1 Conclusions

This study explores the moderating roles of Big-Five personality traits on the perception of internal service quality (i.e. HR practices and supervisory support) and employees' service recovery performance. The proposed model of employees' service recovery performance is developed from the widely recognized theoretical basis, which is the service profit chain (Heskett et al., 1997). The study applied social exchange theory (Blau, 1964) to explain the exchange relationship between the support made by the organization such as HR practices and supervisory support, the proxy of internal service quality and call center agents' response in returning the favor to the organization by providing service recovery performance. In doing so, the study contributed to the service profit chain theory by incorporating personality traits in to the model as a moderating mechanism that strengthen the relationship between internal service quality and employee's service behaviors.

Service profit chain (SPC) proposed that internal service quality, which is measured by the feelings that employees have toward their job, supervisors, and working environment would ignite a chain effect leading to the enhancement of employee service performance, customer satisfaction, organization's growth and profitability (Heskett et al., 1997). Social exchange theory (Blau, 1964) and norm of reciprocity (Gouldner, 1960) stressed that when employees perceive of being valued and supported

by either organization or their supervisors, they will reciprocate these supportiveness with positive work attitudes and behaviors (Gould-Williams, 2003; 2005). HR practices and supervisory support could serve as a way for organizations to show their concern, support, or commitment to their employees in order to promote their performance (Eisenberger et al., 1986). HR practices and perceived supervisory support, the proxy of internal service quality supported by organization, acted as the antecedents of the study while employees' service recovery performance served as service behavior in which the employees reciprocate the favor to the organization. Big-Five personality traits of extraversion, conscientiousness, agreeableness, emotional stability, and openness to experience played the moderating role in explaining the variance into the relationship between internal service quality and employees' service recovery performance.

The research participants were the customer contact employees or call center agents from the two fast-growing industries in Thailand namely Finance & Banking and Telecommunication. The measurement scale in the survey was adopted based from previous empirical studies. Back translation was employed for the accuracy of the translated statements. The pilot study revealed acceptable results in terms of the reliability of each of the constructs. A total of 960 survey questionnaires enclosed in envelopes were sent to participating organizations and 600 surveys were returned. Of the questionnaires returned, 67 were discarded forty-five of which were incomplete and twenty-two were left blank. In the end, a total of 533 usable responses, which accounted for 55.52% of the response rate, were brought in for analysis. Statistical Programme for Social Sciences (SPSS) was used in data analysis, which was performed through preliminary analysis, reliability testing, factor analysis and multiple regression.

The proposed model demonstrated the extent into which Big-Five personality traits moderate the influence of internal service quality (i.e. HR practices and perceived supervisory support) toward employees' service recovery performance. The study investigated the employees' perception of HR practices and supervisory support and

how these factors affect their performance in recovering service failures. The employees' personality traits were included in to the model in order to determine their moderating effects toward the relationship between internal service quality and employees' service recovery performance.

Results indicate that only emotional stability appears to significantly moderate the relationships between internal service quality (HR practices and perceived supervisory support) and service recovery performance. Employees who have high emotional stability reported greater dedication in performing service recovery when they perceived support from the organization and supervisors. Therefore, the results clearly suggest that emotional stability is an important influencing factor for employees' service recovery performance. Employers should then be aware that aside from the support provided by HR offices and supervisors, they should also take into consideration the employees' personality factor when it comes to service performance. It has been found that employees' emotional stability strengthen the influence of internal service quality toward service performance, thus it is important that companies should take note of the employees' emotional stability as this can prevent service failure to happen between employees and customers.

In contrast, the moderating role of extraversion, conscientiousness, agreeableness, and openness to experience into the relationship between internal service quality and service recovery performance were not supported using these data. Previous research on service performance also failed to find a significant interaction effect between personality traits and internal service quality toward service performance (H. Liao & Chuang, 2004; Sutherland et al., 2007). For example, Liao and Chuang (2004) explored the interaction effect between personality traits (conscientiousness, emotional stability, extraversion, and agreeableness) and service climate toward employees' service performance. None of the interaction between personality traits and service climate was found significant related to service performance. The non-significant interaction may due to other factors such as nature of the service product (H. Liao & Chuang, 2004) or structured/nonstructural environment (Sutherland et al., 2007) that affect the



relationship. For instance, Sutherland et al. (2007) argued that in an environment with close and strict supervision, employees may have little choice with regard to their service behaviors; thus, little difference can be observed between personality traits on their service performance. Therefore, researchers suggested for further investigation on curvilinear relation or three-way interaction among personality, situation, and other factors that may affect the service behaviors.

The following sections show the research findings, the contributions of the study and future recommendations.

## **6.2 Discussions of the key findings**

This study investigates the moderating roles of personality traits on the relationship between employees' perceived internal service quality (i.e. HR practices and supervisory support) and their service recovery performance. The study adopted social exchange theory (Blau, 1964) as the theoretical backdrop to explain the exchange relationship between these supports made by the organization and supervisors, and the call center agents' response in returning the favor to the organization by providing efficient service recovery performance.

The first and the second hypotheses proposed that internal service quality (i.e. HR practices and supervisory support) have positive influence on employees' service recovery performance. The coefficient of the relationship between HR practices and service recovery performance revealed a positive significant relationship. This means that management should invest in HR practices in order to enhance employees' service recovery performance. Similarly, the coefficient of the relationship between perceived supervisory support and service recovery performance also showed positive significant result. This implies that creating good working environment by supervisory support can lead to better service recovery performance. The findings replicated previous empirical studies in which management supports (both HR practices and supervisory support) positively influence employees' service recovery performance. For instance, the

significant relationship between perceived supervisory support and service recovery performance was consistent with the findings of Yavas et al.(2010), Van Vaerenbergh et al.(2014), and Guchait et al.(2014). Likewise, the positive significant relationship between HR practices and service recovery performance was also consistent with prior studies indicating that these management support practices predict employees' service recovery performance(N. J. Ashill et al., 2005; Christo Boshoff & Allen, 2000; Karatepe & Karadas, 2012; Van Vaerenbergh et al., 2014). The findings suggested that employees reciprocate their employers by efficiently performing service recovery when they experience support from the management through HR practices and supervisory aids.

Hypotheses 3 to 12 proposed that personality traits played a moderating role in the service recovery performance model. It is argued that employee with different personality traits will respond differently to this exchange relationship suggesting that not all the personalities share the common roles in the exchange relationship in the service context.

Hypotheses 3 and 4 proposed that extraversion would strengthen the influence of internal service quality (i.e. HR practices and perceived supervisory support) toward the service recovery performance. As shown in the regression analysis, the results reveal that extraversion predicts service recovery performance. However, the moderating role of extraversion on the hypothesized relationship is not significantly different from zero even though the extraversion trait alone does influence employees' dedication to recover service failure. The direct influence of extraversion toward employees' service performance is consistent with the prior meta-analysis study that confirmed the relationship between extraversion and job performance (Barrick & Mount, 1991; Judge et al., 2002). As extroverts tend to be more satisfied with their jobs (Judge & Ilies, 2002) and have higher motivation for status striving (Barrick, Stewart, & Piotrowski, 2002), they may tend to put more effort into their performance regardless of the support level from their organization and supervisors. In this case, no significance

was found to determine the moderating role of extraversion towards the relationship between internal service quality (i.e. HR practices and supervisory support) and service recovery performance.

Hypotheses 5 and 6 proposed that the relationship between internal service quality (i.e. HR practices and perceived supervisory support) and service recovery performance is stronger when conscientiousness is high. Aligning with empirical studies, the statistical results reveal a positive significant relationship between conscientiousness and performance (Barrick & Mount, 1991; H. Liao & Chuang, 2004). However, the moderating effects between internal service quality (i.e. HR practices and perceived supervisory support) and conscientiousness are not significantly different from zero. Due to the interaction effects between conscientiousness and internal service quality toward service recovery performance does not exist in the current study, it can be inferred that supportiveness from the organization or supervisors does not create an impact to conscientiousness employees to perform their best in recovering service failures. This is because people who are high in conscientiousness are motivated to work hard and also manifest a high need for achievement (Barrick & Mount, 1991). Therefore, as conscientiousness individuals are self-motivated, they may not need other incentives or support from management to induce them to high productivity (Kamdar & Dyne, 2007). This could explain why no significant relationship was found on the moderating role of conscientiousness toward the relationship between internal service quality and service recovery performance.

Hypotheses (H7 and H8) proposed that employees who report high levels of agreeableness and high levels of internal service quality (i.e. HR practices and perceived supervisory support) would perform better in service recovery. Contrary to the expectation, agreeableness did not interact with either HR practices or perceived supervisory support in predicting employees' service recovery performance. The findings reveal that employees who reported high in agreeableness show more willingness in solving customer complaints and recover dissatisfied customers even in the absence of management supports. Nevertheless, the moderating role of

agreeableness on the hypothesized relationship is not significantly different from zero whereas the agreeableness trait alone does influence employees' performance in recovering service failure. People who are agreeable are described as altruistic, sympathetic, and eager to help others (Barrick et al., 2002); therefore, the willingness and ability to ease unsatisfied customers and recover customer complaints could be their own preference regardless of management supports. As such, this could explain why no significance was found in the moderating role of agreeableness toward the relationship between HR practices and service recovery performance as well as the relationship between perceived supervisory support and service recovery performance.

The next hypotheses (H9 and H10) proposed that the relationship between internal service quality (i.e. HR practices and perceived supervisory support) and service recovery performance is stronger when emotional stability is high. As expected, emotional stability moderate the relationships between internal service quality and employees' service recovery performance. Consistent with prior studies, the moderating role of emotional stability have also been reported in the previous study on perceived developmental support and workplace deviance (Colbert et al., 2004) as well as perceived supervisory support and job performance (Fullarton et al., 2014). Applying social exchange theory in this context, employees who reported high in emotional stability have stronger sense of responsibility to exert their efforts in return for the support they received from their organization and supervisors. The significant found in the moderating role of emotional stability means that emotional stability call centers who perceived support from their organization and supervisors, are likely to return a favor to their organization and supervisors by working harder and putting more effort to recover the service failure of the organization.

Colbert et al. (2004) argued that when personality traits are highly relevant to the environment being investigated, those personality traits can moderate the relationship between perceptions of the work situation and the outcomes. This is particularly true for emotional stability call centers. Due to call center jobs have been characterized as a stressful work environment (Hunt & Rasmussen, 2010; Taylor & Bain, 1999); therefore, employees who are emotionally stable are prone to perform better service recovery than

those who are anxious, tense, and less tolerant of stress (Barrick & Mount, 1991; Mount et al., 1998; Ruppel et al., 2013). This could explain why the significant was found in moderating role of emotional stability on service recovery performance. In this case, the results serve to illuminate the boundary condition that HR practices, as well as perceived supervisory support, are more likely to increase service recovery performance for employees with high level of emotional stability.

Hypotheses 11 and 12 proposed that openness to experience would strengthen the influence of internal service quality toward service recovery performance. As regards the statistical results, the findings reveal that openness to experience influences employees' service recovery. It is consistent with prior studies confirming that openness to experience predicts the unique variance of job performance among the employees (Bing & Loundsbury, 2000; Ones & Viswesvaran, 1999). However, contradictory to the expectation, the coefficient of moderating effect was not statistically significant. It can be inferred that perceiving high support from organization and supervisors among openness to experience employees does not influence their service recovery performance. The non-significant findings might be due to the characteristics of openness to experience person's divergent thinking. According to McCrae (1996), the characteristic of openness to experience, especially the divergent thinking, would lead openness person to value things differently (McCrae, 1996). For example, openness to experience employees may value the supportive resources invested by organization contrarily among others (Erdheim et al., 2006). Therefore, openness to experience person may not value the support made by organization and supervisors; as a result, this could explain why no significant relationship was found on the moderating role of openness to experience toward the service recovery performance.

In summary, all Big-Five personality traits share the common role in their direct influence on employee service recovery performance. Whilst emotional stability can explain the boundary condition in the exchange relationship of internal service quality in terms of HR practices and supervisory support toward their service recovery performance, other personality traits influence on the outcome regardless of the support

made by the organization and managers. The personality of the recipient, who benefitted from HR practices and supervisory support, in particular, emotional stability, can play a significant role in strengthening the influence of management supports with their service recovery performance. In contrast, this is not the case for extraversion, agreeableness, conscientiousness, and openness to experience. More specifically, the results suggest that call center agents with higher levels of emotional stability reported higher willingness to perform service recovery when they perceived high support from either HR practices or their immediate supervisors. Thus, the greatest level of service recovery performance can be expected among those agents who reported a high level of emotional stability and high in perceived support by their supervisors as well as the organization.

## **6.3 Contributions**

### *6.3.1 Theoretical contributions*

This research offers a number of important theoretical contributions. Firstly, the current study empirically supports the notion of service profit chain model that internal service quality influence employees' capability. Since service profit chain model heightens the importance of internal service quality in service organizations as it determines how management can motivate and encourage prospective employees to perform their tasks that potentially lead to customer satisfaction and loyalty (Heskett et al., 1997), the current study supports the notion, which explains that internal service quality influence employees' productivity and capability. Most of empirical evidence in service profit chain and social exchange theory focused on delighting the customers who are neutral to the satisfaction level (Gelade & Young, 2005; Hong et al., 2013; H. Liao & Chuang, 2004; Sutherland et al., 2007). Current study emphasis on exploring the factors that recovering dissatisfied customers to the satisfaction level. It is found that HR practices as well as perceived supervisory support, the proxy of internal service quality, are significant factors in determining employees' service recovery performance. These findings resonate with prior research linking HR practices (N. J. Ashill et al., 2005; Christo Boshoff & Allen, 2000; Karatepe & Karadas, 2012; Yavas et al., 2003) and

perceived supervisory support (Guchait et al., 2014) to employees' service recovery performance. Therefore, it could be concluded that internal service quality is a significant factor in determining employees' service recovery performance.

Prior researchers stressed the importance of personality traits that may influence service performance (N. Ashill et al., 2009; Petrou et al., 2011). They have called for additional empirical studies in examining if personality traits could be the potential factors that affect the relationship between internal service quality and service performance of the employees (N. Ashill et al., 2009; Dietz et al., 2004; Hong et al., 2013; Mayer et al., 2009; Petrou et al., 2011; Schneider et al., 2002). In response to the suggestion from past studies, personality traits were added to the model in order to understand how personality traits could explain variance in the relationship between internal service quality and employees' service performance in service profit chain model (Hong et al., 2013; Kamdar & Dyne, 2007; Petrou et al., 2011). The study tested the moderating role of each personality traits (extraversion, conscientiousness, agreeableness, emotional stability, and openness to experience) into the relationship between internal service quality and employees' service recovery performance. Salgado (1997) criticized that personality traits is an important predictor that explained the performance variances among the employees. This is particular true as the findings in the current study showed that the positive relationships between internal service quality and employees' service recovery performance are moderated by personality traits, particularly emotional stability. The results indicated that the positive influence of internal service quality (HR practices and supervisory support) toward employees' capability in recovering service failure are stronger for those who reported high in emotional stability. Thus, emotional stability appears to represent a potential additional construct in service profit chain in which strengthen the relationships between internal service quality and employee's capability.

Extending from previous studies, the current study not only clarifies the direct relationship between internal service quality and service performance of the SPC model but also explicates the moderating mechanism by which personality traits affect the relationship between internal service quality and employee's service behaviors.

Therefore, this study add to the notion of service profit chain by incorporating another potential influencer, emotional stability, and examined the posited relationships between internal service quality, employee's performance, and personality traits in customer contact employees.

Secondly, the positive significant relationship between internal service quality (HR practices and perceived supervisory support) and employees' service recovery performance in this study also verifies the postulations for the social exchange theory. In the current study, social exchange theory (Blau, 1964) helped explain the exchange relationship between the support made by the organization and call center agents in returning the favor to the organization by providing service recovery performance. It is implied that when employees perceived that organization value their contribution and care about their well-being, it usually cultivates the belief that the organization works on their favor. As such, they may return these supportiveness with the effort to perform service recovery well. Consequently, the significant relationships between internal service quality and employees' service recovery performance found in this study provide an empirical contribution that helps verify the postulation of social exchange theory. However, it is argued that employee with different personality traits will respond differently to this exchange relationship suggesting that not all the personalities share the common roles in the exchange relationship in the service context(Shore & Coyle-Shapiro, 2003). It is proposed that the personality of the recipient who benefitted from the internal service quality, particularly emotional stability, can play a significant role in strengthening or weakening the influence of management support towards their service recovery performance. Hence, the study filled-in the research gap, which called for more attention to the role of individual differences on social exchange relationship (Colbert et al., 2004; Kamdar & Dyne, 2007; Karatepe et al., 2014; Shore & Coyle-Shapiro, 2003). Specifically, Big-Five personality traits were included to examine whether people with these traits feel obliged and reciprocate favors to others as postulated by the social exchange theory. The findings concurred with Shore & Coyle-Shapiro's (2003) argument in which not all personality traits share a common role in social exchange relationship. Among all the Big-five personality traits, only emotional stability significantly moderated the relationship between internal service quality and



service recovery performance. This imply that employees who reported high in emotional stability feel obliged and are more likely to return the favors to the organization. Furthermore, the study also contributed to the call of several researchers to investigate the role of social exchange relationships in employee behaviors that emanate from different cultural settings as most of the empirical studies were based on North American samples(Shore, Coyle-Shapiro, Chen, & Tetrick, 2009; Song , Tsui, & Law, 2009; Wikhamn & Hall, 2012). This study was conducted in Thailand, which employed Thai nationals, thus it could contribute to the literature of social exchange relationship in Thai context.

Next, although the concept, service recovery performance, has been discussed for over 20 years, scholars argued that the service recovery concept still remains understudied and they call for more studies in this research domain(Michel et al., 2009; Van Vaerenbergh et al., 2014). Accordingly, the study contributes to the concept of service recovery performance by exploring other possible factors that affect service recover performance such as HR practices, perceived supervisory support, and personality traits. It was found that HR practices, supervisory support, and personality traits influence employees' service recovery performance. Particularly for HR practices, most of prior studies investigated the influence of each HR practices toward service recovery performance in term of individual practices such as training, rewards and recognition, or empowerment. However, many researchers emphasized the synergy among the HR practices rather than individual practices that influence employee's performance (Admad & Schroeder, 2003; Combs et al., 2006; Delery, 1998; Guerrero & Barraud-Didier, 2004; Huselid, 1995); and yet, there is still lack of empirical study testing the joint effect of HR practices toward service recovery performance (Karatepe et al., 2014). Therefore, the current study filled in the gap by investigating the joint effect of HR practices on employees' service recovery performance. Moreover, prior researchers had called for more research on how personality traits might affect employees' service recovery performance (Chan & Lam, 2011; J. S. Smith et al., 2010; Van Vaerenbergh et al., 2014). As such, the current study respond to the recent calls testing the moderating role of Big-five personality traits on service recovery performance.

Lastly, the study also add to the body of call center literature. While most of the call center literature focuses on developed countries such as USA and UK or even developing countries like India and the Philippines, the current study can help extend the literature and provide empirical evidence on the new environment of the call center. Conducting research in Thailand's call center can contribute to the new insights for the literature. As call centers play a crucial role not only in service delivery during service encounters but also during the service recovery process. Call center agents who provide exceptional service recovery can potentially increase customer's positive emotional response and satisfaction towards the company(Augusto de Matos et al., 2007; Bennett & Robinson, 2000) and initiate a strong customer loyalty (Ruyter & Wetzels, 2000), higher purchase intentions (Andreassen, 2001) and increase in company's revenue (Heskett et al., 1997). Hence, the current study contributes to the understanding that internal service quality (HR practices and perceived supervisory support) and personality traits, particularly emotional stability, are the key influencers on the service recovery performance among Thai's call center agents.

### *6.3.2 Managerial implications*

This study suggests several guidelines for managerial actions. Firstly, as the objective of the study is to understand the moderating effects of personality traits on employees' service recovery performance, this research helps the management understanding the extent to which personality traits could moderate employees' service performance for the benefit of the organization. As the results showed, firms can now determine the specific personality trait, emotional stability which is most influential in performing service recovery. The HR department can make use of the result as basis for recruitment as they can identify the right people for the right job. This is most especially true to those who look for workers who can reciprocate good service to the organization. As the companies invest in developing and retaining their employees through HR practices and supervisor supports, the increase in service recovery performance and quality service are expected to be delivered by emotional stability employees to the customers.

The insights gained from the study could be used to develop and improve recruitment and selection strategies that would benefit the service organization. Hiring the right person for the call centers job via selective hiring enables the managers to retain a pool of productive employees who enjoy serving customers and able to response effectively to the dissatisfied customers(N. Ashill et al., 2009; Lau, 2000). Many call centers, such as in Canada, take personality traits into account in the hiring process (Echchakoui, 2013). As when selective hiring methods are implemented, the training efforts are more effective and less employee turnover (Reichheld & Sasser, 1990). The organization could give its priority to the candidates with high emotional stability because this group of candidates will exert higher effort to deliver service excellence to satisfy the customers when supported. Accordingly, the influential impact of organization and supervisory supports on service outcome can be enhanced.

Secondly, as service organization that involve customer service such as call centers need to deliver quality service to ensure customer satisfaction and future profitability, the current framework provides some useful guidance on the actions that management can take to effectively manage employee's productivity in service profit chain model. The linkages between internal service quality and employees' service recovery performance suggest that management supports in the form of procedures and policies as well as emotional support from supervisors are critical for promoting desirable service recovery behavior on the part of employees. HR practices and perceived supervisory support, the proxy of internal service quality, are significant predictors of employees' service recovery performance. Given this finding, the support from organization and supervisors is crucial in delivering good service in call centers. Management can illustrate their encouragement toward their employees by providing support system and structure through HR practices, while supervisors can show their support by providing resources and emotional support in the form of sympathy, caring, comfort, and encouragement toward the agents.

Lastly, as suggested by Heskett et al. (1997)that providing effectively service recovery could brought in company's revenue a several times greater than cost of handling

customer complaints. Given that employees' capability to recover customer dissatisfaction is the key to company's profitability, organization may need to regularly assess employees' perception about the aspects of internal service quality to understand how is organization effectively implementing these management supports that influence customer service behaviors. The management should ensure a necessary level of resources being made available for not only for customer service employees but also for supervisors. For example, organization can provide supervisors a training to improve their managerial skills. This is useful as supervisors need to display appropriate emotional support to employees, especially in call centers as this is characterized as an emotionally laborious occupation. Moreover, as only emotional stability was found to strengthen the influence of internal service quality toward service recovery performance. This is suggested in turn that it is likely to be well worth in identifying call centers who are high in emotional stability and then working with them to identifying the significant level of emotional support or HR practices that help enhance the service recovery performance. Though the consistent approach of internal service quality over time, this could slightly reinforce the service recovery behavior among the call centers and organizational culture.

#### **6.4 Limitations and Future recommendations**

The current findings highlight the potential importance of emotional stability in explaining the relationship between management supports (i.e. HR practices and perceived supervisory support) and service recovery performance; however, there are a number of limitations that should be considered. The limitations of the current study and suggestions for further study are discussed hereunder.

The first limitation is the common method bias. Using the same source of information, i.e. respondents, to measure the constructs in the study is prone to creating common method variance that may result in a biased estimate of model parameters. However, steps were taken in the design of the study procedures to reduce the likelihood of method bias such as separating the measurement of the variables in the survey, assuring respondents' confidentiality and anonymity, and using statistical tools to assess the degree of biased estimate of the study measures (Podsakoff, MacKenzie, Lee, &

Podsakoff, 2003). Results from construct validity analyses suggest that this is unlikely to be the case for this study. Nevertheless, a future study could employ multiple sources to avoid common method variance; for instance, service recovery performance could be assessed by coworkers or customers.

The second limitation is the generalizability of the study. Since this study focuses on the call center context only on two industries located in Thailand: Telecommunication and Finance & Banking, observing only call center context also limits the generalizability of the findings. Additionally, although the findings of this study validate the applicability of the theory developed in the West, further study could be done to examine the hypothesized relationships using call centers in other countries to enhance the generalizability of the results. Future replications are particularly necessary. It is recommended that longitudinal studies be carried out to establish the relationship extracted from this study in order to study developmental trends or changes.

Although two-way interactions (between HR practice and emotional stability as well as between perceived supervisory support and emotional stability) were found to be significant, the variables together explained a relatively small variance in service recovery performance (12 percent and 10.3 percent) and the estimated coefficient were not pleasantly high (0.072 and 0.088). Considering the low variance and weakness coefficient of the interaction effect, these might be due to the fact that the current study has ignored some specific contexts that could influence recovery performance. Penney, David, and Witt (2011) argued that the kinds of interactions employees have with customers may affect validity estimates. For instance, they suggested that the validity of emotional stability with service performance may be higher in jobs where emotional labor demand is higher than call center or in the service context that require longer duration relationship between employees and customers. It is suggested that defining the nature of the task is critical to accurately define the validity of the personality traits. In addition, to increase the explained variance in service recovery performance, it is suggested to include observed behavior outcomes among the service employees that determine customer satisfaction after experience service failure (Michel et al., 2009).

The observable behaviors may include apologizing to the customer, refund any charged incurred, acknowledge mistake, or provide compensation (Johnston & Fern, 1999; Orshingher et al., 2010). Thus, future research would be valuable to explore if this criterion allows a full understanding of the influences of management supports and personality traits on service recovery performance.

The last limitation is the omission of some important factors. Drawing on existing research, the current study identified a set of key individual and contextual factors jointly influence employees' service recovery performance. However, there are likely to be other factors that may have some impact on service recovery performance as well. As convinced by prior researchers that individual differences (such as personality, values, and competencies) may vary the perception and interpretation of a person from what is anticipated by the organization (Nadler & Tushman, 1980; Nishii et al., 2008; Petrou et al., 2011), other personality traits such as customer orientation and emotional intelligence should also be examined. It is worthy to test if other personality traits could also influence and moderate the relationship of service recovery performance.

In conclusion, this study explores the moderating roles of Big-Five personality traits on the relationship between internal service quality (i.e. HR practices and perceived supervisory support) and employees' service recovery performance. Results indicate that only emotional stability appears to modify the relationship between HR practices as well as perceived supervisory support toward service recovery performance. High emotional stability employees reported greater dedication to performing on service recovery when they perceived support from their organization and supervisors. By contrast, no evidence shows that the influence of internal service quality (HR practices and perceived supervisory support) toward employees' service recovery performance can be moderated by extraversion, conscientiousness, agreeableness, and openness to experience. Therefore, these findings suggest that the exchange relationship between employer and employees can be significantly different among personality traits. It is suggested that employees or candidates with higher emotional stability should be well taken care of for they could enhance service recovery performance to support company's profitability and growth.

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## APPENDIX A



### Questionnaire Survey Service recovery performance

I am a Doctoral degree student studying at Doctor of Business Administration in Major Management, Chulalongkorn University. This questionnaire has been developed under the purpose of education only and the information will be treated with high confidentiality.

This questionnaire survey aims to explore the perception of employees how they perceived themselves toward service recovery performance, which contains 3 parts listed as follow:

- Part I: Service recovery performance, HR practices, and Perceived supervisory support
- Part II: Personality traits
- Part III: Demographic Data



A 10 baht donation for each questionnaire completed would be given to the Foundation for the Welfare of the Crippled.

**Part I: Service recover performance, HR practices, Perceived supervisory support**

**Instruction:** Please select one answer of each following statements by circle the number that best describe you.  
 7 = Strongly Agree 6 = Moderately Agree 5 = Agree 4 = Neutral 3 = Disagree 2 = Moderately Disagree 1 = Strongly Disagree

<b>Service Recovery performance</b>		Strongly Disagree ← → Strongly Agree						
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
1	Considering all the things I do, I handle dissatisfied customers quite well.	1	2	3	4	5	6	7
2	I do not mind dealing with complaining customers.	1	2	3	4	5	6	7
3	No customer I deal with leaves with problems unresolved.	1	2	3	4	5	6	7
4	Satisfying complaining customers is a greater thrill to me.	1	2	3	4	5	6	7
<b>HR practices</b>		Strongly Disagree ← → Strongly Agree						
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
1	I am provided with sufficient opportunities for training or development.	1	2	3	4	5	6	7
2	This department keeps me informed about business issues and about how well it is doing.	1	2	3	4	5	6	7
3	There is a clear status difference between management and staff in this department.	1	2	3	4	5	6	7
4	This department attempts to make jobs as interesting and varied as possible.	1	2	3	4	5	6	7
5	Team working is strongly encouraged in our department.	1	2	3	4	5	6	7
6	A rigorous selection process is used to select new recruits.	1	2	3	4	5	6	7
7	I feel my job is secure.	1	2	3	4	5	6	7
8	When new management positions come up, the department normally tries to fill them with people from within the department or authority rather than recruiting from outside.	1	2	3	4	5	6	7
9	This department tries to relate your pay with your performance in some way.	1	2	3	4	5	6	7
10	I feel fairly rewarded for the amount of effort I put into my job.	1	2	3	4	5	6	7
11	Management involves people when they make decisions that affect them.	1	2	3	4	5	6	7
<b>Perceived supervisory support</b>		Strongly Disagree ← → Strongly Agree						
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
1	My supervisor cares about my well-being.	1	2	3	4	5	6	7
2	My supervisor values my contributions to its well-being.	1	2	3	4	5	6	7
3	My supervisor cares about my opinions.	1	2	3	4	5	6	7
4	My supervisor considers my goals and values.	1	2	3	4	5	6	7
5	My supervisor cares about my general satisfaction at work.	1	2	3	4	5	6	7
6	My supervisor is willing to help me when I need a special favor.	1	2	3	4	5	6	7
7	My supervisor shows very little concern for me.	1	2	3	4	5	6	7



## Part II: Personality Traits (How accurate can you describe yourself?)

**Instruction:** Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Please answer the following questions by circle the number that best describes you.

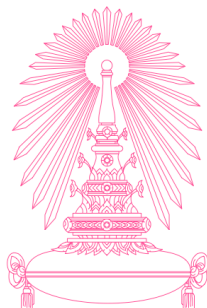
Extremely <u>Inaccurate</u> to Extremely <u>Accurate</u>															
1		2		3		4		5		6		7			
I see myself as I...															
1. Am the life of the party.	1	2	3	4	5	6	7	26. Don't talk a lot.	1	2	3	4	5	6	7
2. Am interested in people.	1	2	3	4	5	6	7	27. Make people feel at ease.	1	2	3	4	5	6	7
3. Am always prepared.	1	2	3	4	5	6	7	28. Am exacting in my work.	1	2	3	4	5	6	7
4. Am relaxed most of the time.	1	2	3	4	5	6	7	29. Get upset easily.	1	2	3	4	5	6	7
5. Have a rich vocabulary.	1	2	3	4	5	6	7	30. Spend time reflecting on things.	1	2	3	4	5	6	7
6. Feel comfortable around people.	1	2	3	4	5	6	7	31. Keep in the background.	1	2	3	4	5	6	7
7. Sympathize with others' feelings.	1	2	3	4	5	6	7	32. Am not really interested in others.	1	2	3	4	5	6	7
8. Pay attention to details.	1	2	3	4	5	6	7	33. Leave my belongings around.	1	2	3	4	5	6	7
9. Seldom feel blue.	1	2	3	4	5	6	7	34. Change my mood a lot.	1	2	3	4	5	6	7
10. Have a vivid imagination.	1	2	3	4	5	6	7	35. Am full of ideas.	1	2	3	4	5	6	7
11. Start conversations.	1	2	3	4	5	6	7	36. Have little to say.	1	2	3	4	5	6	7
12. Have a soft heart.	1	2	3	4	5	6	7	37. Insult people.	1	2	3	4	5	6	7
13. Get shores done right away.	1	2	3	4	5	6	7	38. Make a mess of things.	1	2	3	4	5	6	7
14. Get stressed out easily.	1	2	3	4	5	6	7	39. Have frequent mood swings.	1	2	3	4	5	6	7
15. Have excellent ideas.	1	2	3	4	5	6	7	40. Have difficulty understanding abstract ideas.	1	2	3	4	5	6	7
16. Talk to a lot of different people at parties.	1	2	3	4	5	6	7	41. Don't like to draw attention to myself.	1	2	3	4	5	6	7
17. Take time out for others.	1	2	3	4	5	6	7	42. Am not interested in other people's problem.	1	2	3	4	5	6	7
18. Like order.	1	2	3	4	5	6	7	43. Often forget to put things back in their place.	1	2	3	4	5	6	7
19. Worry about things.	1	2	3	4	5	6	7	44. Get irritated easily	1	2	3	4	5	6	7
20. Am quick to understand things.	1	2	3	4	5	6	7	45. Am not interested in abstract ideas.	1	2	3	4	5	6	7
21. Don't mind being the center of attention.	1	2	3	4	5	6	7	46. Am quiet around strangers.	1	2	3	4	5	6	7
22. Feel others' emotions.	1	2	3	4	5	6	7	47. Feel little concern for others.	1	2	3	4	5	6	7
23. Follow a schedule.	1	2	3	4	5	6	7	48. Shirk my duties.	1	2	3	4	5	6	7
24. Am easily disturbed.	1	2	3	4	5	6	7	49. Often feel blue.	1	2	3	4	5	6	7
25. Use difficult words.	1	2	3	4	5	6	7	50. Do not have good imagination.	1	2	3	4	5	6	7

**Part III: Demographic Data**

- 1) Gender  Male  Female
- 2) Age  Lower than 20  21-25  26-30  
 31-35  36-40  Over 40
- 3) I have been working as a call center in this organization for  
 Less than 1 year  6 – 7 years  15 years and above  
 1 – 3 years  8 – 9 years  
 4 – 5 years  10 – 14 years
- 4) Status  Single  Married  Divorce
- 5) Your position in this organization  
 Part-time Call Center  Full-time Call Center
- 6) Education level  
 Less than Bachelor degree  
 Bachelor degree  
 Master degree
- 7) Type of your organization industry  
 Telecommunication  Financial and Banking

THANK YOU FOR YOUR COOPERATION

## APPENDIX B



### แบบสอบถาม

### ผลงานการพลิกฟื้นการให้บริการ

ดิฉันกำลังศึกษาในระดับคุณวุฒิบัณฑิต(ปริญญาเอก) ที่คณะพาณิชยศาสตร์และการบัญชี เอกบริหารการจัดการ จุฬาลงกรณ์มหาวิทยาลัย แบบสอบถามฉบับนี้ได้จัดทำขึ้นเพื่อใช้ในการศึกษาวิจัยเท่านั้นและขอรับรองว่าข้อมูลนี้จะถูกเก็บเป็นความลับ

แบบสอบถามฉบับนี้จัดทำขึ้นเพื่อศึกษาผลงานการพลิกฟื้นการให้บริการของพนักงานและปัจจัยที่ทำให้เกิดผลงานนี้ ผ่านมุมมองของตัวพนักงานเอง ซึ่งแบบสอบถามฉบับนี้จะประกอบไปด้วย 3 ส่วน ได้แก่

- ส่วนที่ 1: ผลการพลิกฟื้นการให้บริการ การบริหารทรัพยากรบุคคล การรับรู้ถึงการสนับสนุนของหัวหน้างาน
- ส่วนที่ 2: บุคลิกภาพ
- ส่วนที่ 3: ข้อมูลส่วนตัวของผู้ตอบแบบสอบถาม



ความตั้งใจและการเสียสละเวลาของท่าน ในการตอบแบบสอบถามฉบับนี้ จะร่วมบริจาคให้กับมูลนิธิอนุเคราะห์คนพิการฉบับละ 10 บาทมาร่วมเป็นส่วนหนึ่งในการทำบุญครั้งนี้กันนะคะ

ส่วนที่ 1: ผลงานการพลิกฟื้นการให้บริการ การบริหารทรัพยากรบุคคล และการรับรู้ถึงการสนับสนุนของหัวหน้างาน

วิธีการตอบแบบสอบถาม: โปรดอ่านข้อความต่อไปนี้ และเลือกคำตอบ โดยการวงกลม O ตัวเลขที่เหมาะสมกับตัวคุณมากที่สุด								
1 = ไม่เห็นด้วยอย่างยิ่ง 2 = ไม่เห็นด้วยปานกลาง 3 = ไม่เห็นด้วย 4 = เฉยๆ 5 = เห็นด้วย 6 = เห็นด้วยปานกลาง 7 = เห็นด้วยอย่างยิ่ง								
	ผลงานการพลิกฟื้นการให้บริการ	ไม่เห็นด้วยอย่างยิ่ง ← → เห็น ด้วยอย่างยิ่ง						
		1	2	3	4	5	6	7
1	เมื่อเทียบเคียงกับงานหลายๆอย่างที่ฉันทำ ฉันสามารถรับมือกับลูกค้าที่ไม่พึงพอใจได้ค่อนข้าง	1	2	3	4	5	6	7
2	ฉันไม่ขัดข้องที่จะจัดการกับลูกค้าที่ไม่พึงพอใจ	1	2	3	4	5	6	7
3	ฉันสามารถจัดการกับปัญหาให้กับลูกค้าทุกคนที่โทรเข้ามาได้	1	2	3	4	5	6	7
4	ฉันสุขใจที่ทำให้ลูกค้าที่ไม่พอใจเกิดความพอใจ	1	2	3	4	5	6	7
	การบริหารทรัพยากรบุคคล	ไม่เห็นด้วยอย่างยิ่ง ← → เห็น ด้วยอย่างยิ่ง						
		1	2	3	4	5	6	7
1	ฉันมีโอกาสได้รับการฝึกอบรมและพัฒนาทักษะอย่างเพียงพอ	1	2	3	4	5	6	7
2	ฉันได้รับข่าวสารเกี่ยวกับธุรกิจและผลการดำเนินการของบริษัทจากหน่วยงานของฉัน	1	2	3	4	5	6	7
3	ที่หน่วยงานของฉันมีการแบ่งแยกชนชั้นกันชัดเจนระหว่างผู้บริหารและพนักงานปฏิบัติการ	1	2	3	4	5	6	7
4	หน่วยงานมีความพยายามที่จะทำให้งานมีความน่าสนใจและหลากหลายเท่าที่เป็นไปได้	1	2	3	4	5	6	7
5	หน่วยงานของฉันสนับสนุนให้มีการทำงานเป็นทีมเป็นอย่างมาก	1	2	3	4	5	6	7
6	กระบวนการในการคัดเลือกพนักงานใหม่มีความเข้มงวดมาก	1	2	3	4	5	6	7
7	ฉันรู้สึกว่างานของฉันมีความมั่นคง	1	2	3	4	5	6	7
8	เมื่อมีตำแหน่งผู้บริหารว่าง หน่วยงานของฉัน จะพิจารณาเลือกบุคลากรจากภายใน แทนที่จะเป็นบุคคลจากภายนอก	1	2	3	4	5	6	7
9	หน่วยงานพยายามจ่ายค่าตอบแทนตามประสิทธิภาพในการทำงานของฉัน	1	2	3	4	5	6	7
10	ฉันได้รับผลตอบแทนอย่างเป็นธรรม สำหรับความพยายามในการทำงานของฉัน	1	2	3	4	5	6	7
11	ผู้บริหารให้พนักงานได้มีส่วนร่วมในการตัดสินใจในเรื่องที่มีผลกระทบต่อพวกเขา	1	2	3	4	5	6	7
	การรับรู้ถึงการสนับสนุนของหัวหน้างาน	ไม่เห็นด้วยอย่างยิ่ง ← → เห็น ด้วยอย่างยิ่ง						
		1	2	3	4	5	6	7
1	หัวหน้างานของฉัน ใส่ใจในเรื่องความเป็นอยู่ของฉัน	1	2	3	4	5	6	7
2	หัวหน้างานของฉัน ให้ความสำคัญต่อการมีส่วนร่วมในงานของฉัน	1	2	3	4	5	6	7
3	หัวหน้างานของฉัน ใส่ใจในความคิดเห็นของฉัน	1	2	3	4	5	6	7
4	หัวหน้างานของฉัน รับรู้ถึงเป้าหมายและคุณค่าของฉัน	1	2	3	4	5	6	7
5	หัวหน้างานของฉัน ใส่ใจเกี่ยวกับความพึงพอใจ ในที่ทำงานของฉัน	1	2	3	4	5	6	7
6	หัวหน้างานของฉัน อินดีที่จะให้ความช่วยเหลือฉันเมื่อฉันร้องขอ	1	2	3	4	5	6	7
7	หัวหน้างานของฉัน แสดงความเห็นอกเห็นใจต่อฉันน้อยมาก	1	2	3	4	5	6	7

ส่วนที่ 2: บุคลิกภาพ (คุณสามารถบ่งบอกความเป็นตัวคุณได้แม่นยำขนาดไหน?)

วิธีการตอบแบบสอบถาม: โปรดพิจารณาลักษณะนิสัยที่ให้มาด้านล่างนี้ เพื่อบ่งบอกความเป็นตัวคุณในปัจจุบัน ไม่ใช่สิ่งที่คุณคิดว่าจะเป็นในอนาคต กรุณาให้คะแนนโดยการวงกลม O ตัวเลขที่ตรงตามระดับกับตัวคุณมากที่สุด

← ตรงกับฉันน้อยที่สุด ไปยัง ตรงกับฉันมากที่สุด →						
1	2	3	4	5	6	7
<b>ฉันมองเห็นตัวเองว่าฉันเป็นคนี่.....</b>						
1. สร้างสีสัน ทำให้งานเลี้ยงมี	1	2	3	4	5	6 7
2. สนใจคนอื่น	1	2	3	4	5	6 7
3. เตรียมพร้อมเสมอ	1	2	3	4	5	6 7
4. ผ่อนคลาย สบายๆ เกือบทุก	1	2	3	4	5	6 7
5. รู้คำศัพท์เยอะ ใช้คำศัพท์ได้	1	2	3	4	5	6 7
6. รู้สึกสบายใจเวลาที่มีผู้คนอยู่	1	2	3	4	5	6 7
7. เห็นอกเห็นใจความรู้สึกของ	1	2	3	4	5	6 7
8. สนใจในทุกรายละเอียด	1	2	3	4	5	6 7
9. นานๆครั้งที่จะรู้สึกหดหู่	1	2	3	4	5	6 7
10. มีความฝัน ชอบจินตนาการ	1	2	3	4	5	6 7
11. มักเป็นฝ่ายเริ่มพูดคุยก่อน	1	2	3	4	5	6 7
12. มีจิตใจอ่อนโยน	1	2	3	4	5	6 7
13. รับผิดชอบที่ควรทำให้เสร็จ	1	2	3	4	5	6 7
14. เครียดง่าย	1	2	3	4	5	6 7
15. มีความคิดเห็นดีเยี่ยม	1	2	3	4	5	6 7
16. พูดคุยกับคนต่าง ๆ มากมาย	1	2	3	4	5	6 7
17. ยอมเสียเวลาให้กับคนอื่น	1	2	3	4	5	6 7
18. ชอบความเป็นระเบียบ	1	2	3	4	5	6 7
19. วิดกั้วลงไปทุกอย่าง	1	2	3	4	5	6 7
20. เข้าใจสิ่งต่างๆ ได้อย่าง	1	2	3	4	5	6 7
21. รู้สึกเฉยๆกับการเป็นจุด	1	2	3	4	5	6 7
22. รับรู้ถึงอารมณ์ของผู้อื่น	1	2	3	4	5	6 7
23. ทำงานตามตารางเวลา	1	2	3	4	5	6 7
24. ถูกรบกวนสมาธิได้ง่าย	1	2	3	4	5	6 7
25. ชอบใช้คำศัพท์ยากๆ	1	2	3	4	5	6 7
26. ไม่พูดมาก	1	2	3	4	5	6 7
27. ชอบทำให้ผู้อื่นรู้สึกสบายใจ	1	2	3	4	5	6 7
28. ไม่บอกพร่องต่อหน้าที่	1	2	3	4	5	6 7
29. อารมณ์เสื่อง่าย	1	2	3	4	5	6 7
30. ใช้เวลาระลึกลึถึงสิ่งต่างๆ	1	2	3	4	5	6 7
31. ชอบทำงานอยู่เบื้องหลัง	1	2	3	4	5	6 7
32. ไม่ค่อยสนใจคนอื่น ๆ	1	2	3	4	5	6 7
33. ทิ้งข้าวของไว้กระจัด	1	2	3	4	5	6 7
34. อารมณ์เปลี่ยนไปเปลี่ยนมา	1	2	3	4	5	6 7
35. เต็มไปด้วยความคิด/ เข้าแห่ง	1	2	3	4	5	6 7
36. พูดน้อย	1	2	3	4	5	6 7
37. ชอบสบประมาทผู้อื่น	1	2	3	4	5	6 7
38. ทำทุกอย่างให้ยุ่งเหยิง	1	2	3	4	5	6 7
39. อารมณ์แปรปรวน	1	2	3	4	5	6 7
40. ไม่ค่อยเข้าใจเรื่องที่เป็น	1	2	3	4	5	6 7
41. ไม่ชอบให้ตัวเองเป็นจุด	1	2	3	4	5	6 7
42. ไม่สนใจในปัญหาของคน	1	2	3	4	5	6 7
43. ลืมเก็บของให้เข้าที่เสมอ	1	2	3	4	5	6 7
44. ขี้ราคาญ	1	2	3	4	5	6 7
45. ไม่สนใจเรื่องที่เป็น	1	2	3	4	5	6 7
46. เจ็บๆเวลาอยู่กับคนแปลก	1	2	3	4	5	6 7
47. ไม่ค่อยเป็นห่วงผู้อื่น	1	2	3	4	5	6 7
48. บ่ายเบี่ยงหน้าที่ของตนเอง	1	2	3	4	5	6 7
49. มักจะอยู่ในอารมณ์เศร้า	1	2	3	4	5	6 7
50. ขาดจินตนาการที่	1	2	3	4	5	6 7

\*หมายเหตุ: นามธรรม คือ สิ่งที่ต้องไม่ได้เช่น ความคิด ความชั่ว ความซื่อสัตย์ ความรัก ความเหงา ฯลฯ

### ส่วนที่ 3: ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

1) เพศ  ชาย  หญิง

2) อายุ  น้อยกว่า 20 ปี  26 - 30  36 - 40  
 21 - 25  31 - 35  มากกว่า 40 ปี

3) สันทำงานเป็นคอลเซนเตอร์ในองค์กรแห่งนี้มาเป็นเวลา

น้อยกว่า 1 ปี  6-7 ปี  15 ปีขึ้นไป  
 1-3 ปี  8-9 ปี  
 4-5 ปี  10-14 ปี

4) สถานะ  โสด  สมรส  หย่าร้าง

5) ตำแหน่งของท่านในองค์กรนี้คือ

พนักงานคอลเซนเตอร์แบบชั่วคราว  พนักงานคอลเซนเตอร์แบบประจำ

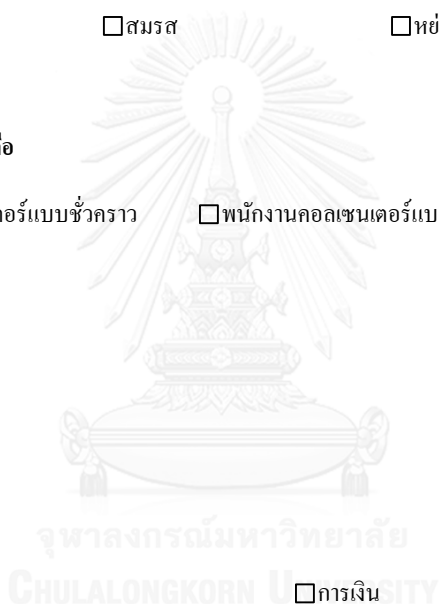
6) ระดับการศึกษา

ต่ำกว่าปริญญาตรี  
 ระดับปริญญาตรี  
 ระดับปริญญาโท

7) ประเภทของอุตสาหกรรม

โทรคมนาคม  การเงิน

ขอขอบคุณที่ให้ความร่วมมือในการตอบแบบสอบถามค่ะ



## APPENDIX C

### Exploratory Factor Analysis

#### *Extraversion*

*Table 29: Factor analysis of extraversion (first round)*

Constructs	Question items	Component			Communalities
		1	2	3	
Extraversion	EX1	.763			.624
	EX2	.718			.536
	EX3	.692			.557
	EX4	.777			.631
	EX5	.601			.383
	EX6			.897	.806
	EX7		.668		.467
	EX8			.804	.740
	EX9		.745		.594
	EX10		.717		.527

Note:

Extraction method: Principal Component Analysis

Rotation method: Varimax with Kaiser Normalization

Total variance explained 3 components = 58.65%

KMO measure = .762; Barlett's test: p-value = 0.000

The exploratory factor analysis for extraversion extracted into three components with 58.65 percent of total variance explained. The KMO measure indicates satisfactory of 0.762, as well as the Barlett's test, shows significant p-value less than 0.01. There are 5 items loaded into the first component (EX1 – EX5). However, the communality for EX5 did not achieve the minimum threshold of 0.4; therefore, it was dropped off from the variable. As a result, four items, EX1, EX2, EX3, and EX4, are computed to create a variable representing extraversion construct in this study.

*Conscientiousness**Table 30: Factor analysis of conscientiousness (first round)*

Constructs	Question items	Component		Communalities
		1	2	
Conscientiousness	CON1	.754		.569
	CON 2	.663		.441
	CON 3	.730		.553
	CON 4	.623		.437
	CON 5	.726		.527
	CON 6	.692		.488
	CON 7		.774	.600
	CON 8		.779	.609
	CON 9		.756	.573
	CON 10		.630	.448

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 2 components = 52.46%  
 KMO measure = .822; Barlett's test: p-value = 0.000

Next, the exploratory factor analysis for conscientiousness extracted into two components with 52.46 percent of total variance explained. The KMO measure indicates satisfactory of 0.822, as well as the Barlett's test, shows significant p-value less than 0.01. The first component was loaded with 6 items (CON1 – CON6) and all of them achieved satisfactory of factor loading ( $> 0.60$ ) and communalities level ( $> 0.40$ ). Thus, CON1 - CON6 items were computed to create the conscientiousness construct in this study.



*Agreeableness**Table 31: Factor analysis of agreeableness (first round)*

Constructs	Question items	Component		Communalities
		1	2	
Agreeableness	AGR1	.601		.477
	AGR 2	.775		.632
	AGR 3	.723		.549
	AGR 4	.693		.484
	AGR 5	.791		.630
	AGR 6	.702		.531
	AGR 7		.610	.392
	AGR 8		.727	.528
	AGR 9		.763	.601
	AGR 10		.729	.593

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 2 components = 53.17%  
 KMO measure = .848; Barlett's test: p-value = 0.000

For Agreeableness construct, the exploratory factor analysis extracted into two components from all agreeableness 10 items. KMO measure is getting acceptable criteria (.848) while the Barlett's test also statistic significantly achieves p-value less than 0.01. There are 6 items loaded into the first component namely: AGR1, AGR2, AGR3, AGR4, AGR5, and AGR6. These six items achieved both minimum thresholds of factor loading ( $> 0.60$ ) and communalities ( $>0.40$ ). Hence, these 6 items are summated to create a variable represent agreeableness construct in this study.

*Emotional stability**Table 32: Factor analysis of emotional stability (first round)*

Constructs	Question items	Component			Communalities
		1	2	3	
Emotional stability	ES 1			.819	.679
	ES 2			.776	.618
	ES 3		.754		.634
	ES 4		.820		.738
	ES 5		.725		.599
	ES 6	.532	.555		.595
	ES 7	.810			.728
	ES 8	.818			.736
	ES 9	.773			.654
	ES 10	.637			.555

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 2 components = 65.37%  
 KMO measure = .860; Barlett's test: p-value = 0.000

The exploratory factor analysis for emotional stability construct resulted similar to extraversion as the item loaded into three components. In the first component, there are five items loaded namely: ES6, ES7, ES8, ES9, and ES10. However, ES6 did not achieved a minimum threshold of factor loading ( $> 0.60$ ) and was found to have more than one significant loading in component 1 and 2; therefore, the items was drop off. The total of 4 items (ES7 – ES10) remained and summated to create the variable. Moreover, the cumulative percentage of variance for emotional stability is satisfied which is greater than 50 percent threshold and the Barlett's test of p-value less than 0.01.

*Openness to experience**Table 33: Factor analysis of openness to experience (first round)*

Constructs	Question items	Component			Communalities
		1	2	3	
Openness to experience	OTE1			.816	.686
	OTE 2	.714			.623
	OTE 3			.606	.532
	OTE 4	.438		.464	.456
	OTE 5			.687	.569
	OTE 6	.757			.599
	OTE 7	.770			.637
	OTE 8		.769		.605
	OTE 9		.749		.567
	OTE 10		.628		.421

Note: Extraction method: Principal Component Analysis  
 Rotation method: Varimax with Kaiser Normalization  
 Total variance explained 2 components = 56.95%  
 KMO measure = .728; Barlett's test: p-value = 0.000

Lastly, for openness to experience construct, the exploratory factor analysis extracted three components from all openness to experience 10 items. KMO measure is getting acceptable criteria (.728) while the Barlett's test also statistic significant achieve p-value less than 0.01. There are 4 items loaded into the first component namely: OTE 2, OTE 4, OTE 6, and OTE7. However, OTE 4 was failed to achieve a minimum threshold of factor loading ( $> 0.60$ ). Moreover, it was also found to have more than one significant loading; therefore, the item was excluded from the analysis due to cross-loaded between component 1 and 3. Hence, OTE 2, OTE 6, and OTE7 are summated to create a variable represent openness to experience construct.

## APPENDIX D

### Testing for normality of the error distribution

#### Statistical Hypotheses:

$$H_0: \varepsilon_i \sim \text{Normal}; i = 1, 2, \dots, n$$

$$H_a: \text{Not } H_0$$

Figure 13: Histogram of regression standardized residual

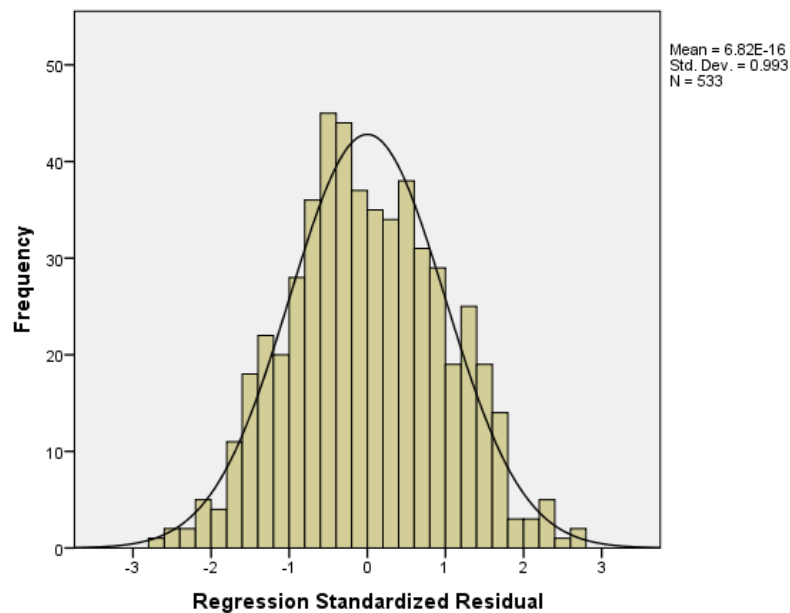


Figure 14: Normal P-P plot of regression standardized residual

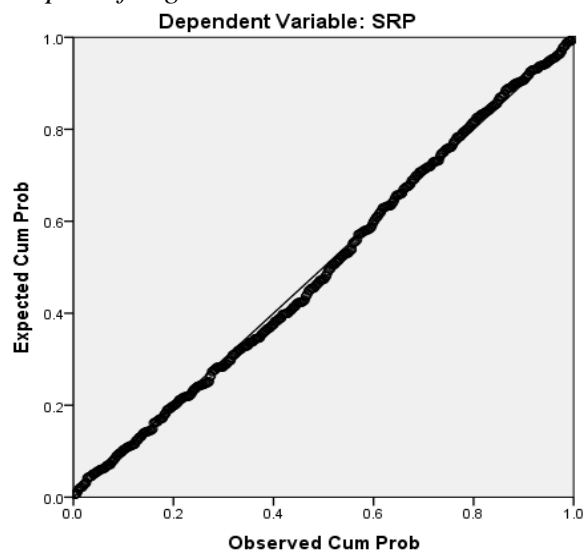


Figure 15: Normal Q-Q plot of unstandardized residual

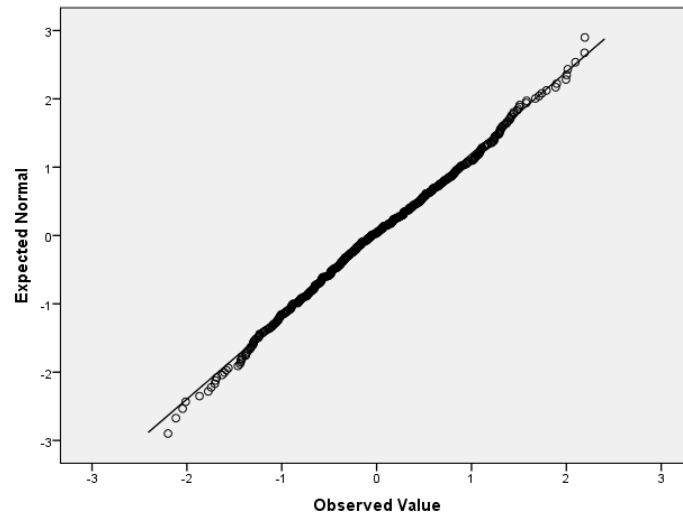


Table 34: Test of Normality: Kolmogorov-Smirnov

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.035	533	.153	.996	533	.140

a. Lilliefors Significance Correction

P-value = 0.153

Significant  $\alpha = 0.05$

Accept  $H_0$

Thus, the data are normality.

### Testing for independence of errors

Statistical Hypotheses:

$$H_0: \varepsilon_i \sim \text{Randomness}; i = 1, 2, \dots, n$$

$$H_a: \text{Not } H_0$$

Table 35: Test of Independence of residual: Run test

Runs Test	
	Unstandardized Residual
Test Value <sup>a</sup>	-.02401
Cases < Test Value	266
Cases >= Test Value	267
Total Cases	533
Number of Runs	265
Z	-.217
Asymp. Sig. (2-tailed)	.828

a. Median

P-value = 0.828

Significant  $\alpha = 0.05$

Accept  $H_0$

Thus, the residuals are random.



### Testing for homoscedasticity of errors (Constant variance)

Statistical Hypotheses:

$$H_0: \alpha_1 = \alpha_2 = \dots = \alpha_p = 0$$

$$H_a: \sigma_1^2 \neq \sigma^2(\alpha_0 + \alpha_1 x_{1i} + \alpha_2 x_{2i} + \dots + \alpha_p x_{pi}) \text{ for all } i = 1, 2, \dots, n$$

Table 36: Matrix procedure for homoscedasticity of errors test

#### Run MATRIX procedure:

Written by Ahmad Daryanto

Original Regression model:

Dependent variable Service recovery performance (SR)

R-square .326

OLS Output

	b	se	t	sig
Constant	.896	.300	2.987	.003
HR	.131	.036	3.622	.000
PSS	-.008	.031	-.247	.805
EX	.004	.042	.092	.926
AGR	.360	.070	5.114	.000
CON	.241	.063	3.816	.000
ES	.077	.031	2.480	.013
OTE	.031	.042	.731	.465

#### ANOVA TABLE

	SS	df	MS	F	Sig
Model	139.450	7.000	19.921	36.275	.000
Residual	288.319	525.000	.549	-999.000	-999.000

#### Breusch-Pagan and Koenker test

The tests use the residuals from the above OLS

OLS Output

	b	se	t	sig
Constant	1.721	.591	2.912	.004
HR	-.054	.071	-.768	.443
PSS	-.049	.061	-.813	.417
EX	-.113	.083	-1.361	.174
AGR	.132	.139	.953	.341
CON	.002	.125	.020	.984
ES	-.059	.061	-.970	.332
OTE	-.015	.082	-.185	.853
R-square	.012			

----- ANOVA TABLE -----

	SS	df	MS	F	Sig
Model	13.565	7.000	1.938	.910	.000
Residual	1118.569	525.000	2.131	-999.000	-999.000

----- Breusch-Pagan and Koenker test statistics and sig-values -----

	LM	Sig
BP	6.783	.452
Koenker	6.386	.495

**Null hypothesis: heteroskedasticity not present (homoskedasticity)**

If sig-value less than 0.05, reject the null hypothesis

Note: Breusch-Pagan test is a large sample test and assumes the residuals to be normally distributed

----- END MATRIX -----





## APPENDIX E

### Regression Analyses

**Hypothesis 3:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when extraversion is high.

Table 37: Moderated multiple regression for hypothesis 3

Independent Variables	Hypothesis 3			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.033	5.04	5.01	5.02
<b>Control Variables</b>				
Gender	.286**	.294**	.268**	.268**
Age	.006	.002	.014	.014
Tenure	.091*	.112**	.100**	.100**
Firm types	-.047	-.205	-.104	-.106
<b>Main effects</b>				
HR practices (HR)		.242**	.181**	.183**
Extraversion (EX)			.276**	.276**
<b>Interactions</b>				
HR x EX				-.012 <sup>ns</sup>
R <sup>2</sup>	.042	.111	.201	.201
Adjusted R <sup>2</sup>	.034	.102	.192	.190
Δ R <sup>2</sup>	-	.069	.009	-
F	5.7**	13.13**	20.00**	18.84**
Tolerance range	.338 – .940	.336 – .945	.335 – .944	.335 – .980
VIF range	1.06 – 2.95	1.05 – 2.97	1.05 – 2.98	1.02 – 2.98

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 4:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when extraversion is high.

Table 38: Moderated multiple regression for hypothesis 4

Independent Variables	Hypothesis 4			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	4.98	4.97	4.97
<b>Control Variables</b>				
Gender	.286**	.268**	.247**	.247**
Age	.006	.009	.020	.021
Tenure	.091*	.092*	.084*	.085*
Firm types	-.047	.025	.071	.072
<b>Main effects</b>				
PSS		.196**	.145**	.149**
Extraversion (EX)			.291**	.291**
<b>Interactions</b>				
PSS x EX				-.039
R <sup>2</sup>	.042	.086	.188	.190
Adjusted R <sup>2</sup>	.034	.078	.178	.179
Δ R <sup>2</sup>	-	.044	.102	.002
F	5.721**	9.970**	20.26**	17.54**
Tolerance range	.338 –	.338 –	.338 –	.338 –
	.940	.965	.963	.989
VIF range	1.06 –	1.03 –	1.03 –	1.01 –
	2.95	2.95	2.95	2.95

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 5:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when conscientiousness is high.

Table 39: Moderated multiple regression for hypothesis 5

Independent Variables	Hypothesis 5			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.033	5.04	5.15	5.16
<b>Control Variables</b>				
Gender	.286**	.294**	.251**	.252**
Age	.006	.002	-.044	-.046
Tenure	.091*	.112**	.129**	.131**
Firm types	-.047	-.205	-.120	-.133
<b>Main effects</b>				
HR practices (HR)		.242**	.133**	.139**
Conscientiousness (CON)			.421**	.417**
<b>Interactions</b>				
HR x CON				-.035
R <sup>2</sup>	.042	.111	.308	.310
Adjusted R <sup>2</sup>	.034	.102	.300	.301
Δ R <sup>2</sup>	-	.069	.197	.002
F	5.72**	13.13**	39.08**	33.72**
Tolerance range	.338 – .940	.336 – .945	.335 – .938	.334 – .968
VIF range	1.06 – 2.95	1.05 – 2.97	1.06 – 2.98	1.03 – 2.99

Note: Dependent variable is Service recovery performance (SRP). \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 6:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when conscientiousness is high.

Table 40: Moderated multiple regression for hypothesis 6

Independent Variables	Hypothesis 6			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	4.98	5.12	5.12
<b>Control Variables</b>				
Gender	.286**	.268**	.234**	.234**
Age	.006	.009	-.041	-.039
Tenure	.091*	.092*	.118**	.118**
Firm types	-.047	.025	.011	.012
<b>Main effects</b>				
PSS		.196**	.119**	.130**
Conscientiousness (CON)			.435**	.429**
<b>Interactions</b>				
PSS x CON				-.055
R <sup>2</sup>	.042	.086	.305	.309
Adjusted R <sup>2</sup>	.034	.078	.297	.300
Δ R <sup>2</sup>	-	.044	.219	.004
F	5.72**	9.97**	38.44**	33.51**
Tolerance range	.338 – .940	.338 – .965	.337 – .956	.337 – .963
VIF range	1.06 – 2.95	1.03 – 2.95	1.04 – 2.96	1.03 – 2.96

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 7:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when agreeableness is high.

Table 41: Moderated multiple regression for hypothesis 7

Independent Variables	Hypothesis 7			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	5.04	5.13	5.14
<b>Control Variables</b>				
Gender	.286**	.294**	.250**	.250**
Age	.006	.002	-.027	-.030
Tenure	.091*	.112**	.099**	.102**
Firm types	-.047	-.205	-.019	-.028
<b>Main effects</b>				
HR practices (HR)		.242**	.152**	.160**
Agreeableness (AGR)			.431**	.430**
<b>Interactions</b>				
HR x AGR				-.034
R <sup>2</sup>	.042	.111	.336	.337
Adjusted R <sup>2</sup>	.034	.102	.328	.328
Δ R <sup>2</sup>	-	.069	.225	.001
F	5.72**	13.13**	44.28**	38.15**
Tolerance range	.338 – .940	.336 – .945	.336 – .943	.334 – .951
VIF range	1.06 – 2.95	1.05 – 2.97	1.06 – 2.98	1.05 – 2.99

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 8:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when agreeableness is high.

Table 42: Moderated multiple regression for hypothesis 8

Independent Variables	Hypothesis 8			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	4.98	5.10	5.10
<b>Control Variables</b>				
Gender	.286**	.268**	.235**	.235**
Age	.006	.009	-.024	-.024
Tenure	.091*	.092*	.086*	.086*
Firm types	-.047	.025	.118	.118
<b>Main effects</b>				
PSS		.196**	.096**	.096**
Agreeableness (AGR)			.441**	.441**
<b>Interactions</b>				
PSS x AGR				-.002
R <sup>2</sup>	.042	.086	.320	.320
Adjusted R <sup>2</sup>	.034	.086	.320	.320
Δ R <sup>2</sup>	-	.044	.234	-
F	5.72**	9.97**	41.18**	35.23**
Tolerance range	.338 – .940	.338 – .965	.338 – .938	.338 – .996
VIF range	1.06 – 2.95	1.03 – 2.95	1.06 – 2.95	1.00 – 2.95

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 9:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when emotional stability is high.

Table 43: Moderated multiple regression for hypothesis 9

Independent Variables	Moderating equation 9			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	5.04	5.06	5.06
<b>Control Variables</b>				
Gender	.286**	.294**	.295**	.287**
Age	.006	.002	.005	.004
Tenure	.091*	.112**	.104**	.099**
Firm types	-.047	-.205	-.211	-.215
<b>Main effects</b>				
HR practices (HR)		.242**	.220**	.224**
Emotional stability (ES)			.109**	.118**
<b>Interactions</b>				
HR x ES				.072*
R <sup>2</sup>	.042	.111	.125	.133
Adjusted R <sup>2</sup>	.034	.102	.115	.121
Δ R <sup>2</sup>	-	.069	.014	.008
F	5.72**	13.13**	12.47**	11.46**
Tolerance range	.338 – .940	.336 – .945	.334 – .940	.333 – .972
VIF range	1.06 – 2.95	1.05 – 2.97	1.06 – 2.99	1.02 – 3.00

Note: Dependent variable is Service recovery performance (SRP). \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 10:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when emotional stability is high.

Table 44: Moderated multiple regression for hypothesis 10

Independent Variables	Hypothesis 10			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	4.98	5.01	5.00
<b>Control Variables</b>				
Gender	.286**	.268**	.272**	.265**
Age	.006	.009	.011	.006
Tenure	.091*	.092*	.084*	.082*
Firm types	-.047	.025	-.005	.018
<b>Main effects</b>				
PSS		.196**	.170**	.196**
Emotional stability (ES)			.113**	.120**
<b>Interactions</b>				
PSS x ES				.088**
R <sup>2</sup>	.042	.086	.101	.115
Adjusted R <sup>2</sup>	.034	.078	.091	.103
$\Delta$ R <sup>2</sup>	-	.044	.015	.014
F	5.72**	9.970**	9.845**	9.721**
Tolerance range	.338 – .940	.338 – .965	.337 – .938	.337 – .937
VIF range	1.06 – 2.95	1.03 – 2.95	1.06 – 2.96	1.06 – 2.96

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01



**Hypothesis 11:** The positive relationship between perceived HR practices and employees' service recovery performance is stronger when openness to experience is high.

Table 45: Moderated multiple regression for hypothesis 11

Independent Variables	Hypothesis 11			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	5.04	5.08	5.08
<b>Control Variables</b>				
Gender	.286**	.294**	.271**	.271**
Age	.006	.002	-.015	-.015
Tenure	.091*	.112**	.117**	.117**
Firm types	-.047	-.205	-.147	-.148
<b>Main effects</b>				
HR practices (HR)		.242**	.222**	.223**
Openness to experience (OTE)			.204**	.204**
<b>Interactions</b>				
HR x OTE				-.004
R <sup>2</sup>	.042	.111	.166	.166
Adjusted R <sup>2</sup>	.034	.102	.156	.155
$\Delta R^2$	-	.069	.055	-
F	5.72**	13.13**	17.43**	14.91**
Tolerance range	.338 – .940	.336 – .945	.336 – .974	.336 – .976
VIF range	1.06 – 2.96	1.06 – 2.98	1.03 – 2.98	1.03 – 2.98

Note: Dependent variable is Service recovery performance (SRP). \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

**Hypothesis 12:** The positive relationship between perceived supervisory support and employees' service recovery performance is stronger when openness to experience is high.

Table 46: Moderated multiple regression for hypothesis 12

Independent Variables	Hypothesis 12			
	Step 1	Step 2	Step 3	Step 4
<b>Intercept</b>	5.03	4.98	5.03	5.03
<b>Control Variables</b>				
Gender	.286**	.268**	.245**	.244**
Age	.006	.009	-.009	-.010
Tenure	.091*	.092*	.098*	.098*
Firm types	-.047	.025	.070	.077
<b>Main effects</b>				
PSS		.196**	.189**	.194**
Openness to experience (OTE)			.217**	.217**
<b>Interactions</b>				
PSS x OTE				-.038
R <sup>2</sup>	.042	.086	.149	.152
Adjusted R <sup>2</sup>	.034	.078	.140	.140
Δ R <sup>2</sup>	-	.044	.063	.003
F	5.72**	9.970**	15.39**	13.39**
Tolerance range	.338 – .940	.338 – .965	.338 – .981	.338 – .983
VIF range	1.06 – 2.96	1.04 – 2.96	1.02 – 2.96	1.02 – 2.96

Note: Dependent variable is Service recovery performance (SRP). PSS is Perceived supervisory support. \* denotes significance level of 0.05; \*\* denotes significance level of 0.01

## APPENDIX F

### The interaction between HR practices and Emotional stability

Table below shows the summary of statistic outputs that is needed to generate a graph of the main effects (HR practices and emotional stability) and the interaction on service recovery performance. Next, the computations to create graph of significant interaction term is described; follow by the figure of interaction graph between HR practices and emotional stability.

Table 47: Summary of statistical outputs necessary to graph the moderation result of emotional stability on the HR practices to employees' service recovery performance relationship

Variable	Mean	Standard deviation
HR practices (HR)	4.753	1.036
Emotional stability (ES)	5.287	1.257
Variable	B (unstandardized regression coefficient)	
HR practices (HR)	.224	
Emotional stability (ES)	.118	
HR × ES	.072	
Constant	5.061	

Point 1: High HR practices and High emotional stability

$$\begin{aligned}
 &= [B \text{ for HR} \times (\bar{X} + SD)] + [B \text{ for ES} \times (\bar{X} + SD)] \\
 &\quad + [B \text{ for interaction term} \times (\bar{X} + SD \text{ of HR}) \times (\bar{X} + SD \text{ of ES})] \\
 &\quad + \text{constant} \\
 &= [.224 \times (4.753 + 1.036)] + [.118 \times (5.287 + 1.257)] \\
 &\quad + [.072 \times (4.753 + 1.036) \times (5.287 + 1.257)] + 5.061 \\
 &= [.224 \times (5.789)] + [.118 \times (6.544)] + [.072 \times (5.789) \times (6.544)] + 5.061 \\
 &= [1.2967] + [0.7722] + [2.7276] + 5.061 \\
 &= 9.858
 \end{aligned}$$

Point 2: High HR practices and Low emotional stability

$$\begin{aligned}
 &= [B \text{ for HR} \times (\bar{X} + SD)] + [B \text{ for ES} \times (\bar{X} - SD)] \\
 &\quad + [B \text{ for interaction term} \times (\bar{X} + SD \text{ of HR}) \times (\bar{X} - SD \text{ of ES})] \\
 &\quad + \text{constant} \\
 &= [.224 \times (4.753 + 1.036)] + [.118 \times (5.287 - 1.257)] \\
 &\quad + [.072 \times (4.753 + 1.036) \times (5.287 - 1.257)] + 5.061 \\
 &= [.224 \times (5.789)] + [.118 \times (4.03)] + [.072 \times (5.789) \times (4.03)] + 5.061 \\
 &= [1.2967] + [0.476] + [1.679] + 5.061 \\
 &= 8.513
 \end{aligned}$$

Point 3: Low HR practices and High emotional stability

$$\begin{aligned}
 &= [B \text{ for HR} \times (\bar{X} - SD)] + [B \text{ for ES} \times (\bar{X} + SD)] \\
 &\quad + [B \text{ for interaction term} \times (\bar{X} - SD \text{ of HR}) \times (\bar{X} + SD \text{ of ES})] \\
 &\quad + \text{constant} \\
 &= [.224 \times (4.753 - 1.036)] + [.118 \times (5.287 + 1.257)] \\
 &\quad + [.072 \times (4.753 - 1.036) \times (5.287 + 1.257)] + 5.061 \\
 &= [.224 \times (3.717)] + [.118 \times (6.544)] + [.072 \times (3.717) \times (6.544)] + 5.061 \\
 &= [0.8326] + [0.7722] + [1.7513] + 5.061 \\
 &= 8.417
 \end{aligned}$$

Point 4: Low HR practices and Low emotional stability

$$\begin{aligned}
 &= [B \text{ for HR} \times (\bar{X} - SD)] + [B \text{ for ES} \times (\bar{X} - SD)] \\
 &\quad + [B \text{ for interaction term} \times (\bar{X} - SD \text{ of HR}) \times (\bar{X} - SD \text{ of ES})] \\
 &\quad + \text{constant} \\
 &= [.224 \times (4.753 - 1.036)] + [.118 \times (5.287 - 1.257)] \\
 &\quad + [.072 \times (4.753 - 1.036) \times (5.287 - 1.257)] + 5.061 \\
 &= [.224 \times (3.717)] + [.118 \times (4.03)] + [.072 \times (3.717) \times (4.03)] + 5.061 \\
 &= [0.832] + [0.475] + [1.078] + 5.061 \\
 &= 7.447
 \end{aligned}$$

### Examining Simple Slopes of Moderation lines

General equation:  $Y = (b_1 + b_3 Z)X$

Low Emotional stability:  $Y = (b_1 + b_3 \times 4.03)X$

$$= [.224 + (0.072)(4.03)]X$$

$$= [.224 + .290]X$$

$$= .514$$

High Emotional stability:  $Y = (b_1 + b_3 \times 6.646)X$

$$= [.224 + (0.072)(6.544)]X$$

$$= [.224 + .4711]X$$

$$= .695$$

**Post Hoc Probing:** Is the slope of the regression line significantly different from zero?

To test the significant of the slope, it involves the calculation of the standard errors of the simple slopes of simple regression equations, then the t-tests for the significance of the simple slopes are computed. The following is the equation to calculate standard error:

$$SE = \sqrt{S_{11} + 2ZS_{13} + Z^2S_{33}}$$

Where S11 is the variance for the main effect (.001);  
 S13 is the covariance of the main effect by the interaction (.00048); and  
 S33 is the variance of the interaction (.001).

#### **Low Emotional stability**

$$\begin{aligned} SE &= \sqrt{(.001) + 2(4.03)(.00048) + (4.03)^2(.001)} \\ &= \sqrt{(.001) + (.00386) + (.0162)} \\ &= 0.1451 \end{aligned}$$

$$\text{T-test for simple slopes} = \frac{.514}{.1451} = 3.54 \text{ (} df = 530 \text{);}$$

P-value = 0.0004369 (Significant level < 0.01)

#### **High Emotional stability**

$$\begin{aligned} SE &= \sqrt{(.001) + 2(6.544)(.00048) + (6.544)^2(.001)} \\ &= \sqrt{(.001) + (.00628) + (.0428)} \\ &= 0.2238 \end{aligned}$$

$$\text{T-test for simple slopes} = \frac{.695}{.2238} = 3.105 \text{ (} df = 530 \text{);}$$

P-value = 0.00020014 (Significant level < 0.01)

Therefore, the simple slopes for low emotional stability and high emotional stability are significant different from zero.

## APPENDIX G

### The interaction between perceived supervisory support and Emotional stability

Table below shows the summary of statistic outputs that is needed to generate a graph of the main effects (perceived supervisory support and emotional stability) and the interaction on service recovery performance. Next, the computations to create graph of significant interaction term is described; follow by the figure of interaction graph between perceived supervisory support and emotional stability.

Table 48: Summary of statistical outputs necessary to graph the moderation result of emotional stability on the perceived supervisory support to employees' service recovery performance relationship

Variable	Mean	Standard deviation
Perceived supervisory support (PSS)	5.247	1.202
Emotional stability (ES)	5.287	1.257
Variable	B (unstandardized regression coefficient)	
Perceived supervisory support (PSS)	.196	
Emotional stability (ES)	.120	
PSS × ES	.088	
Constant	5.007	

Point 1: High perceived supervisory support and High emotional stability

$$\begin{aligned}
 &= [B \text{ for PSS} \times (\bar{X} + SD)] + [B \text{ for ES} \times (\bar{X} + SD)] \\
 &\quad + [B \text{ for interaction term} \times (\bar{X} + SD \text{ of PSS}) \times (\bar{X} + SD \text{ of ES})] \\
 &\quad + \text{constant} \\
 &= [.196 \times (5.247 + 1.202)] + [.120 \times (5.287 + 1.257)] \\
 &\quad + [.088 \times (5.247 + 1.202) \times (5.287 + 1.257)] + 5.007 \\
 &= [.196 \times (6.449)] + [.120 \times (6.544)] + [.088 \times (6.449) \times (6.544)] + 5.007 \\
 &= [1.2640] + [0.7853] + [3.7137] + 5.007 \\
 &= 10.770
 \end{aligned}$$

Point 2: High perceived supervisory support and Low emotional stability

$$\begin{aligned}
 &= [B \text{ for PSS} \times (\bar{X} + SD)] + [B \text{ for ES} \times (\bar{X} + SD)] \\
 &\quad + [B \text{ for interaction term} \times (\bar{X} + SD \text{ of PSS}) \times (\bar{X} + SD \text{ of ES})] \\
 &\quad + \text{constant}
 \end{aligned}$$

$$\begin{aligned}
&= [.196 \times (5.247 + 1.202)] + [.120 \times (5.287 - 1.257)] \\
&\quad + [.088 \times (5.247 + 1.202) \times (5.287 - 1.257)] + 5.007 \\
&= [.196 \times (6.449)] + [.120 \times (4.03)] + [.088 \times (6.449) \times (4.03)] + 5.007 \\
&= [1.2640] + [0.4836] + [2.2871] + 5.007 \\
&= 9.041
\end{aligned}$$

Point 3: Low perceived supervisory support and High emotional stability

$$\begin{aligned}
&= [B \text{ for PSS} \times (\bar{X} - SD)] + [B \text{ for ES} \times (\bar{X} + SD)] \\
&\quad + [B \text{ for interaction term} \times (\bar{X} - SD \text{ of PSS}) \times (\bar{X} + SD \text{ of ES})] \\
&\quad + \text{constant} \\
&= [.196 \times (5.247 - 1.202)] + [.120 \times (5.287 + 1.257)] \\
&\quad + [.088 \times (5.247 - 1.202) \times (5.287 + 1.257)] + 5.007 \\
&= [.196 \times (4.045)] + [.120 \times (6.544)] + [.088 \times (4.045) \times (6.544)] + 5.007 \\
&= [0.7928] + [0.7853] + [2.3294] + 5.007 \\
&= 8.915
\end{aligned}$$

Point 4: Low perceived supervisory support and Low emotional stability

$$\begin{aligned}
&= [B \text{ for PSS} \times (\bar{X} - SD)] + [B \text{ for ES} \times (\bar{X} - SD)] \\
&\quad + [B \text{ for interaction term} \times (\bar{X} - SD \text{ of PSS}) \times (\bar{X} - SD \text{ of ES})] \\
&\quad + \text{constant} \\
&= [.196 \times (5.247 - 1.202)] + [.120 \times (5.287 - 1.257)] \\
&\quad + [.088 \times (5.247 - 1.202) \times (5.287 - 1.257)] + 5.007 \\
&= [.196 \times (4.045)] + [.120 \times (4.03)] + [.088 \times (4.045) \times (4.03)] + 5.007 \\
&= [0.7928] + [0.4836] + [1.4345] + 5.007 \\
&= 7.717
\end{aligned}$$

### Examining Simple Slopes of Moderation lines

General equation:  $Y = (b_1 + b_3Z)X$

Low Emotional stability:  $Y = (b_1 + b_3 \times 4.03)X$

$$= [.196 + (0.088)(4.03)]X$$

$$= [.196 + .355]X$$

$$= .551$$

High Emotional stability:  $Y = (b_1 + b_3 \times 6.646)X$

$$= [.196 + (0.088)(6.544)]X$$

$$= [.196 + .5759]X$$

$$= .772$$

**Post Hoc Probing:** Is the slope of the regression line significantly different from zero?

To test the significant of the slope, it involves the calculation of the standard errors of the simple slopes of simple regression equations, then the t-tests for the significance of the simple slopes are computed. The following is the equation to calculate standard error:

$$SE = \sqrt{S_{11} + 2ZS_{13} + Z^2S_{33}}$$

Where  $S_{11}$  is the variance for the main effect (.002);

$S_{13}$  is the covariance of the main effect by the interaction (.000284); and

$S_{33}$  is the variance of the interaction (.001).

#### **Low Emotional stability**

$$\begin{aligned} SE &= \sqrt{(.002) + 2(4.03)(.000284) + (4.03)^2(.001)} \\ &= \sqrt{(.002) + (.00229) + (.01624)} \\ &= 0.1433 \end{aligned}$$

$$\text{T-test for simple slopes} = \frac{.551}{.1433} = 3.845 \quad (df = 530);$$

$$\text{P-value} = 0.0001362 \quad (\text{Significant level} < 0.01)$$

#### **High Emotional stability**

$$\begin{aligned} SE &= \sqrt{(.002) + 2(6.544)(.000284) + (6.544)^2(.001)} \\ &= \sqrt{(.002) + (.00372) + (.0428)} \\ &= 0.2203 \end{aligned}$$

$$\text{T-test for simple slopes} = \frac{.772}{.2203} = 3.503 \quad (df = 530);$$

$$\text{P-value} = 0.0004983 \quad (\text{Significant level} < 0.01)$$

Therefore, the simple slopes for low emotional stability and high emotional stability are significant different from zero.



## VITA

Wanny Oentoro is an Indonesian nationality, was born in July 1983. She earned her bachelor degree with Magna Cum Laude (second class honors) and master degree with Srisakdi Charmonman's Prize for outstanding academic performance from Assumption University. She was former Telephone Service Office at Conrad Bangkok Hotel, Business Center Officer at Shangri-La Hotels, and a former Flight Attendant at EVA Air, Taiwan.

At the present, she is working as a Full-time Lecturer at Assumption University. With the determination to extend her knowledge, she has been pursuing further study in the degree of Doctor of Business Administration Program in Management, Chulalongkorn Business School, Chulalongkorn University, Thailand.

