

**Impact of Varying Service Recovery Attributes on Outcomes
in Process-Based and Outcome-Based Service Failure:
An Empirical Examination**

by

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Declaration

I, Mahesh Singh Bhandari, declare that the PhD thesis entitled “Impact of Varying Service Recovery Actions on Outcomes in Process-Based and Outcome-Based Service Failure: An Exploratory Experimental Examination” is no more than 100,000 words in length, exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

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Date

Abstract

Service recovery has received considerable attention from both academics and practitioners in the recent past and has also become an important topic of research within services marketing. Service recovery is the response of the service provider to a failed service experience. Failed service is the specific event that occurs when service providers do not fulfil the promise to their customers. Researchers seem to agree that failure of service is inevitable in most service settings.

Once a service fails, customers react to service failure in various ways such as complaining, seeking redress, negative voice and stopping the business relationship with the service organisation. Existing literature has also identified that customers' future intentions are likely to be negative towards the service organisation following an unsatisfactory service experience. This leads to negative consumer outcomes, which are unfavourable to the service organisations. In the literature it has been acknowledged that retaining existing customers in long term business transactions is more profitable than recruiting new customers.

Therefore, to regain lost customer support, service organisations need to overcome the negative impact of poorly performed service. In other words, organisations need to have service recovery activities ready for action. There is a range of activities that a firm can include in service recovery strategy. This study included both organisational (empowerment and compensation) and employee (speed and apology) service recovery actions. Some studies have attempted to identify the impact of service recovery activities by analysing the variation in post-recovery consumer outcomes. Seven consumer outcomes were explored within this study. They are, repurchase intent, enhanced loyalty, complaint motive, overall satisfaction, switching intent, expectation update and word of mouth referral.

Further, service encounters are situation specific. Therefore service recovery attempts shall vary with each failure situation. Existing studies do not seem to acknowledge that consumer outcomes could differ with service recovery activities in different failure situations. The present study attempted to compare the different ways in which customers react to the recovery actions after experiencing a failed service encounter.

Literature identified the existence of process failure (Lovelock, Patterson and Walker, 2004) and outcome failure (Zhu, Shivkumar, and Parasuraman, 2004). This study has identified the effects of service recovery actions on consumer outcomes in these two types of service failure (process and outcome). In order to achieve this, hypotheses were formulated, suitable research questions were designed, a questionnaire was developed and administered, relevant statistical tools were used to analyse the data obtained from survey and the results of data analysis were interpreted. This research has yielded several interesting results as well as offering important insights for managers engaged in formulating their service recovery strategy. This research is the first to compare and contrast the impact of service recovery actions on multiple consumer outcomes across failure types and led to the identification of both direct and interaction effects of empowerment, apology, compensation and response speed on consumer outcomes.

The findings of this study have forwarded some important implications for the service industries. The significant effects of service recovery actions on a range of consumer outcomes suggest that the formulation of effective service recovery strategy is essential in order to improve consumer outcomes. Since this study found that the effects of service recovery actions on consumer outcomes vary across type of failure, the findings also provide empirical evidence for the need to differentiate between process failure and outcome failure while developing recovery strategy. In addition, this study has offered a base for future investigations by providing empirical evidence that the successful service recovery should incorporate a range of recovery actions to improve post-failure consumer outcomes.

As the study was conducted in a specific hospitality service setting, the boundary for implementation of the findings is limited and thus may not be generalised across other service settings. Despite its limitations, however, this study is able to open wider horizons for future research in different service settings, first, by integrating a range of post-recovery consumer outcomes, and second, by conceptualising the recovery strategies across failure types.

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Publications Based on this Thesis

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Chapter One

INTRODUCTION

1.1 Overview

This chapter overviews the thesis and includes definitions of the key concepts to be discussed. Specifically, Section 1.2 of this chapter introduces and defines the service process. Section 1.3 defines the key concepts used in this thesis such as types of service failure, response to service failure, service recovery and post-recovery consumer outcomes. A brief introduction to existing studies in service failure and service recovery streams is provided in later sections of this chapter and they are also discussed in more detail in Chapter Two of this thesis. A definitional framework of this study, which incorporates the key issues examined in this thesis, is presented in Section 1.4. Problems identified within existing literature are discussed in Section 1.5, thus explaining the gap in the literature that this thesis will address. The later sections incorporate the aims of this study (Section 1.6), research questions (Section 1.7) and significance of this thesis (Section 1.8). An overview of the thesis structure is presented by highlighting the contents of each chapter in Section 1.9. Finally, Section 1.10 summarises Chapter One.

1.2 The service process

The service process typically has three phases: pre-purchase, consumption and post-purchase. The pre-purchase phase involves the consumer's decision to buy a service (Lovelock, Patterson and Walker, 2004). The consumption phase is an operational flow of the service performance in which customers judge the service (Hart, Heskett and Sasser, 1990). The post-purchase phase relates to the evaluation of the service experience (Zeithaml and Bitner, 2000). According to Norman (2000), the skills, motivation and tools employed by the firm's representative and the expectations and behaviour of the client, together create the service process.

The approaches for explaining service process mainly relate to comparing differences between services and goods. For example, Gronroos (1984, p.10) stated "services are intangible; they are activities rather than things". Services are produced and consumed

simultaneously and customers participate in the production process of service to some extent (Lovelock et al., 2004). Zeithaml and Bitner (2000, p.2) defined services as “the deeds, processes and performances”. Services cannot be seen, tested or touched but can be felt (Boshoff and Leong, 1998). Services include all economic activities, which are not a physical product (Zeithaml and Bitner, 2000). Service offerings are predominantly intangible in a physical sense, and as a result they tend to be low in search qualities (Lovelock et al., 2004). That is, consumers are less likely to be able to assess the service prior to purchase as compared to goods. Services are the result of social acts, which take place in direct contact between the customer and firm’s employee (Norman, 2000). Services produce and provide added value to the goods, as they are essentially intangible concerns of its first purchaser (Zeithaml and Bitner, 2000).

Brown, Cowles and Tuten (1996) argue that no two services will be the same; meaning they are heterogeneous in nature. Services are also situation specific and thus, no two service encounters are identical (Tax, Brown and Chandrashekar, 1998). In addition to the four components of the traditional marketing mix, that is, product, place, promotion and price, the services marketing mix includes three additional elements: people; physical evidence; and process (Zeithaml and Bitner, 2000; Lovelock et al., 2004). Services are generally perceived as more risky to buy than physical products because they are largely intangible in nature (Boshoff, 1997). The intangible nature of service means customers rely on physical evidence to evaluate the service before purchasing (Zeithaml and Bitner, 2000).

Being a process, the production and consumption of a service are inseparable and therefore, human involvement in the service process is usually inevitable (Gronroos, 1984). This means that a variety of things can go wrong during service performance (Swanson and Kelley, 2001a). Firms then need to fix the things that did not go well; the service provider will need to improve consumer perception of the service performance. The following section (Section 1.3) covers these key issues related to this thesis in more detail. That is, why things go wrong, what firms can do to respond to them, and how consumers would perceive firms’ responses to these issues.

1.3 Key concepts used within this thesis

This section, as mentioned in Section 1.2, defines the concepts to be used in this thesis including service failure, service recovery and consumer outcomes which are the main focus of this study. More detailed theoretical discussion on these concepts will be provided in Chapter Two of this thesis.

The first key concept to be defined within this thesis is service failure. It is defined as “the real or perceived breakdown of the service in terms of either outcomes or process” (Duffy, Miller and Bexley, 2006, p.115). Service is perceived as “good” if it meets the customer’s expectations (Lewis and Spyropoulos, 2001). Thus, service failure is related to the service performance of a service provider that is below the consumer’s expectations. There are various reasons cited within the literature for the cause of a service failure. For example, it can occur with poor communication (Bolfing, 1989), lengthy waiting during the service delivery process (Karatepe and Ekiz, 2004) and inappropriate action of service staff (Maxham and Netemeyer, 2002). According to Andreassen (2000), service failures are inevitable and will happen to all service organisations. Therefore, organisations are most likely to find themselves in situations where they need to deal with service failure (Bamford and Xystouri, 2005).

Within the literature, there seems to be agreement that service failure can be classified into two types. For example, Bitner (1990) suggested that service failure can occur both during core service delivery and during the process of service performance. Core service is defined as the main reason why a firm and customer are in contact (Zeithaml and Bitner, 2000). For example, a passenger takes a flight to arrive at a specific destination; an account holder keeps money in the bank account to protect their money and get interest; and a person takes a car to the mechanic to fix a mechanical problem. The inability of a service organisation to perform the core service can lead to a service failure (Lovelock et al., 2004). For example, “the mechanic failed to fix the problem” (Lovelock et al., 2004, p.169).

A second reason for service failure is an unexpected result in the service delivery process (Boshoff, 1997). Therefore, a process failure is where a problem arises in the delivery process, which may or may not affect the final core service performance. For example, the failure related to the poor interpersonal interactions between server and

customer (Lovelock et al., 2004). This researcher has not been able to identify any studies that explore process failure, although it has been identified as an important aspect for research (Boshoff, 1997; Swanson and Kelley, 2001b). It has also been suggested that failure in the service delivery process is more prominent (Parasuraman, Berry and Zeithaml, 1991). However, the literature provides no guide as to whether organisations should focus their attention on process failure or not (Smith, Bolton and Wagner, 1999).

This is consistent with the arguments of Smith et al. (1999) who suggested that a service could fail in two distinct situations, failure in the process of service performance and failure to offer the core service. Together, the literature seems to suggest that process failure relates to the way the service is delivered, and outcome failure relates to the final evaluation of a service by the customer (Mohr and Bitner, 1995; Parasuraman, Zeithaml and Berry, 1985; Smith et al., 1999). For example, a slow service would be classified as process failure whereas an unattended and unavailable service would be classified as outcome failure (Mattila, 2001). Again, the literature does not seem to indicate whether more focus should be given to outcome failure, to process failure, or to both (Zhu, Shivkumar and Parasuraman, 2004). This study aims to investigate whether a differential strategy is required for both failures of a service (process failure and outcome failure). In order to achieve this, the difference in consumer outcomes (these outcomes are explained at the end of this section) across process failure and outcome failure will be compared within this study.

Service recovery is the second key concept explored in this thesis. According to Lewis and Spyropoulos (2001, p.37) "The actions that a service provider takes to respond to service failures are termed as service recovery". Johnston and Fern (1999, p.70) defined service recovery as "the proactive seeking out and dealing with service failures". Hart et al. (1990, p.148) explained that "service recovery can turn angry, frustrated customers into loyal ones". Other definitions of service recovery include "a specific action taken to ensure that the customer receives a reasonable level of service after problems have occurred to disrupt normal service" (Armistead, Clarke and Stanley, 1995, p.5). Service recovery processes are not only related to fixing the problem but also to ensuring that it does not happen again (Nancy, 2002).

Researchers, such as Andreassen (2001) and Hart et al. (1990) identified the growing importance of service recovery. For example, a good recovery process can help to satisfy customers and maintain business relationships with them (Andreassen, 2001). Hart et al. (1990) also suggested that effective service recovery can create customer goodwill. Further, the customer's willingness to recommend the firm to others increases with effective service recovery (Parasuraman et al., 1991). Lewis and Spyropoulos (2001, p.37-38) also stated, "Service recovery is more than complaint handling and involves: interaction between a service provider and a customer; a shortfall in the provision of the original service; a response on the part of the provider to the service shortfall; and a desired result, to turn a dissatisfied customer into a satisfied one".

According to Levesque and McDougall (2002), service recovery activities can be related to both the outcome dimension and process dimension of service failure, that is, the specific activities to deal with service failure (more on service recovery is included in Section 2.3). The outcome dimension of service failure recovery, on the one hand, is what the customer actually receives as part of the firm's efforts to regain the lost confidence of the customer due to a core service failure (Zhu et al., 2004). The process dimension of service failure recovery, on the other hand, is concerned with how the service recovery is attempted (Zeithaml and Bitner, 2000; Lewis and Spyropoulos, 2001). According to Zhu et al. (2004), service organisations should aim to deal with both process and outcome failures by implementing an appropriate service recovery strategy in order to regain a lost customer, that is, the one who had decided not to purchase the service from the same service provider after an unsatisfactory service experience.

There are many activities that can be implemented in the service recovery process. These activities can be broadly classified into two groups. Firstly, there are those, which are the personal responses of a staff member to the service failure, these are employee actions. For example, staff can offer an apology for which they do not require or seek managerial approval (Shapiro and Nieman-Gonder, 2006; Wirtz and Mattila, 2004). Similarly a service representative can respond quickly to the customer enquiry without waiting for a downward flow of organisational policies (Melhem and Irbid, 2004; Yen, Gwinner and Su, 2004). Here, a quick response to the failure could be an employee action which can include the staff being friendly, showing empathy,

responding positively, and engaging the customer in conversation (Duffy et al., 2006; Hocutt, Bowers and Donovan, 2006). Secondly, there are recovery actions incorporating the set of organisational guidelines, authority to the employees (Forbes, Kelley and Hoffman, 2005) and the firm's refund policies (Sparks and McColl-Kennedy, 2001) that can be grouped as organisational actions.

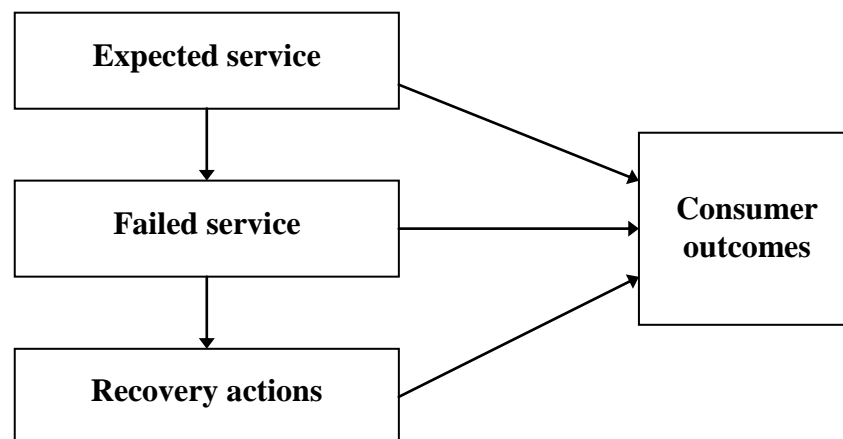
However, some researchers prefer avoiding classification of service recovery actions (e.g., O'Neill and Mattila, 2004; Ronald, Ganesan and Klein, 2003; Weun, Beatty, and Jones, 2004). They simply listed service recovery actions and they prefer to state that there are commonly employed service recovery actions. Irrespective of whether the service recovery actions are classified or not, past research does not seem to differentiate service recovery actions while undertaking statistical analysis. This approach is continued in the present research as well. That is, while this research has acknowledged the suggestion of recent literature in its literature review chapter (Chapter 2 on page 21) that the service recovery actions can be classified by type, the statistical analysis is undertaken without categorising them. Meaning, statistical analysis is undertaken for each service recovery action as well as combinations of service recovery actions, and it does not differentiate into types.

The third key concept within this thesis relates to the variations in consumer responses with service recovery actions. For example, customer repurchase intentions can be improved with an apology, empowerment for action or both (Boshoff, 1997). Similarly, customer satisfaction can be improved with compensation. Consumer loyalty is also associated with the service recovery performance. The ill effects of poor service performances such as service switching and third party referrals can also be mitigated with service recovery actions such as empowerment (Bradley and Sparks, 2001; Melham and Irbid, 2004; Forbes et al., 2005; Wat and Shaffer, 2005), apology (Boshoff, 1997; Mattila, 2001), refund (Sparks and McColl-Kennedy, 2001), and service replacement (Lavesque and McDougall, 2002). Therefore, a service recovery can only be rated as successful if it is able to improve a range of consumer outcomes (Bhandari, Tsarenko and Polonsky, 2007). In the literature, seven consumer outcomes which need to be improved with service recovery have been identified (Bhandari and Polonsky, 2004) and are discussed further in Section 2.7 of Chapter Two.

1.4 Definitional Framework

A definitional framework of this study is represented in Figure 1-1. It includes the process of managing customers' future intentions after service recovery actions. The first section of the framework relates to consumer expectations, which are based on consumer pre-purchase assumptions about the quality and standard of a service (Lovelock et al., 2004). Prior to the purchase of a service, customers search for information about the service, and then set their specific expectations of the service based on the information they receive in the pre-purchase phase. The second section identifies a negative service experience (i.e., a failed service) when the customer's perception of actual service performance is below the expected service. Service failure occurs when consumers perceive that the service providers are unable to fulfil their promises, which were made prior to the decision to purchase (McCole, 2004; Palmer, Beggs and Keown-Mcmullan, 2000; Patterson and Anuwichanont, 2003).

Figure 1-1: Definitional framework of the study



If the service encounter is perceived to be below expectations, the image of the service provider will not be maintained (Duffy et al., 2006). The changed image of the provider determines how the consumer will act in future. This could lead to a change in the consumer's intentions including repurchase, service switching, and future expectation (Patterson, 2004), word of mouth¹ (WoM) referral, satisfaction and loyalty (Nguyen and McColl-Kennedy, 2003). However, the negative impact on these outcomes can be

¹ Word of mouth will be referred as 'WoM' hereafter.

improved with effective management of service failure by implementing an effective service recovery strategy (Keaveney, 1995; Schoefer and Ennew, 2005).

The third section of the framework includes service recovery, which is, according to Bamford and Xystouri (2005) and Swanson and Kelley (2001a), the strategy used to manage service failure. Service recovery is an activity undertaken by the service provider to minimise the negative impact of a failed service encounter (Ennew and Schoefer, 2004). The framework (Figure 1-1) also shows that expected service, failed service and recovery actions are linked with consumer outcomes. The consumer outcomes include, repurchase intent, enhanced loyalty, complaint motive, overall satisfaction, switching intent, expectation update and WoM referral. These consumer outcomes are likely to be different in post-failure situations compared to the situations without service failure but they can be managed by effective recovery strategy (Poon and Low, 2005).

The definitional framework discussed in this section presents basic guidelines for the process of development of the service recovery strategy following a service failure. It also highlights consumer outcomes, which can be improved with an effective service recovery strategy. The range of outcomes identified within the service recovery literature is discussed in Section 2.7 of this thesis.

1.5 Problem identification

In the event of service failure, organisations are at greater risk of losing customers (Zemke and Bell, 1990). According to Tax et al. (1998), existing customers may not necessarily continue purchasing from the same service provider. There are many reasons for such a decision. As noted by Keaveney (1995), most of the time there are many alternative service firms, which provide opportunities for consumers to be able to make choices amongst service providers. Competition can reduce the cost of switching a service provider, which in turn, can reduce market share and profitability of the firm (Keaveney, 1995). This could also mean that the customer is less likely to repurchase the service (Boshoff, 1997). A failed service experience also impacts on WoM referral (Grace and O'Cass, 2001), satisfaction (Ahmed, 2002), future expectations (Parasuraman et al., 1991), complaint motives (Keaveney, 1995) and loyalty (Bailey, 1994).

The regular patronage from existing customers is vital for the service organisation to sustain long term profitability (Swanson and Kelley, 2001b). There are mainly two reasons for this. Firstly, it is cheaper to retain the existing customers than to attract new ones (Palmer et al., 2000). Secondly, long-term customers are more profitable to the firm (Keaveney, 1995). It is important for the service provider to “develop processes to quickly respond to any service situation that does not meet customer expectations” (Hart et al., 1990, p.148), as poorly performed services create customer dissatisfaction. In order to maintain the relationship with the customer for continuous and frequent purchases, high levels of satisfaction and loyalty should be maintained (Boshoff, 1997; Eisingerich and Bell, 2007; Folkes, 1984; Kaczynski and Crompton, 2004). In a service failure situation, this can be achieved by undertaking an effective service recovery activity (Hart et al., 1990). Boshoff (1997) suggested that effective service recovery processes allow service firms to turn dissatisfied customers into ones who are likely to remain loyal to the firm.

However, existing studies have indicated that service recovery actions are not always effective in dealing with a service failure (Mattila, 2001; Schoefer and Ennew, 2005; Zhu et al., 2004). The literature seems to suggest that there are two reasons for this. Firstly, services are situation specific, that is, what dissatisfies one customer in any given situation may not necessarily dissatisfy others (Johnston and Fern, 1999). For example, a poor experience with a part of a service delivery could have a different impact on the consumer’s future intentions than a poor experience of overall service experience (Schoefer and Ennew, 2005; Zhu et al., 2004). Recently, the literature has acknowledged the existence of two types of failure: process failure; and outcome failure (e.g., Zhu et al., 2004; Mattila, 2004). Yet, it is not clear whether organisations should undertake specific corrective actions for each type of service failure, and whether there are any differences in consumer outcomes if one standard recovery strategy is implemented in both failure situations (process failure and outcomes failure) (Nguyen and McColl-Kennedy, 2003). This gap warrants an investigation, specifically exploring how the effects of service recovery strategy could vary based on the type of service failure. One of the aims of this thesis is to address this gap.

Further, the success of service recovery, i.e., the improved consumer outcomes, depends on recovery actions (Zemke, 1994) and organisations can undertake a range of

recovery activities to deal with a service failure situation. Firstly, offering some form of compensation (e.g., replacement of service or monetary refund) can deal with service failure (Brown et al., 1996; Poon and Low, 2005; Zemke, 1994). Secondly, it can be done by empowering employees to respond to the issues and act on behalf of the organisation (Lewis and Spyropoulos, 2001; Sarel and Marmorstein, 1999; Swanson and Kelley, 2001b). Empowerment involves giving individual employees discretion with regard to how they deal with service failure situations.

Other recovery actions involve the response of a staff member to the customers without seeking managerial advice. For example, an employee can offer an apology while dealing with a negative service experience of a customer (Nancy, 2002; Sarel and Marmorstein, 1999; Zemke, 1994). Similarly, employees can act to deal with the failure by responding to the problem quickly without being directed by senior staff to address the issue (Nancy, 2002).

The literature has categorised service recovery actions depending on who is the source of the response to the service failure. Proactive guidelines offered by firm's management to deal with a service failure, for example empowering service staff and rules to compensate a customer, are organisational service recovery actions (Boshoff, 1997; Schoefer and Ennew, 2005). Conversely, activities undertaken by service staff on their own initiative, for example, apology and quick response to a failure, are employee actions (Mattila, 2001; Zhu et al., 2004).

Existing service recovery literature seems to focus on the impact of an individual service recovery action on one or more consumer outcomes (e.g., Ennew and Schoefer, 2004; Maxham and Netemeyer, 2002; Smith et al., 1999). Despite the suggestion that a combination of more than one recovery action could effect on one or more consumer outcome (Wirtz and Mattila, 2004), the trend in past studies has been to virtually ignore the possibility that more than one service recovery action could be needed to achieve desired consumer outcomes. While some studies have included more than one recovery action as well (e.g., Duffy et al., 2006; Wirtz and Mattila, 2004), the interaction effect of multiple recovery actions on consumer outcomes has generally not been examined. This indicates the need for further investigation into how a combination of different recovery actions could impact on consumer outcomes. This thesis seeks to examine the

combined effects of recovery actions on consumer outcomes to address the gap in theory and practice.

Again, previous studies examining the impact of recovery actions on consumer outcomes have indicated that results were inconsistent across different research settings. For example, in a hospitality service setting, Johnston and Fern (1999) and Zemke and Bell (1990) found that compensation is not important in improving consumer outcome whereas, in an airline service failure setting, Bitner (1990), Boshoff and Leong (1998), and Kelley, Hoffman and Davis (1993) found compensation to be an important service recovery action for improving consumer intentions. Johnston and Fern (1999) did not find that an apology is important, but Bitner (1990), Kelley et al. (1993), and McDougall and Levesque (1999) found it to be an important service recovery action in hospitality service setting. In the same setting, Hart et al. (1990) and Smith et al. (1999) found that speed of response to a service failure impacts on consumer outcomes.

Based on a comparison of the results of existing studies, it appears that the findings of past studies are inconsistent with regard to the effect of recovery activities on consumer outcomes (this will be further explored in Chapter Two). Recent studies seem to have established this inconsistency through conducting research in different settings. For example, Shapiro and Nieman-Gonder (2006) indicated that post-recovery consumer outcomes may not be identical when service recovery activities are undertaken in two different settings. Lovelock et al. (2004) also suggested that the heterogeneous nature of services implies that service recovery in two different settings would not be identical. As such, the research findings related to the impact of service recovery actions on consumer outcomes in one specific situation are unlikely to be generalisable across different service settings. For example, an airline passenger waiting for a flight would react to an hour's delay differently to a customer in a restaurant waiting for a meal.

Altogether, these issues warrant further study to investigate the impact of recovery actions in various service settings, as the variation in consumer outcomes with a set of service recovery actions in one service setting could differ with another. One of the service settings, which have been largely ignored in past research, is the accommodation service. It is proposed to conduct this study in a hotel accommodation

setting, and therefore this study will provide empirical results which could potentially support accommodation managers in formulating their service recovery strategy. More discussion on the service settings of past studies is included in Chapter Two.

The literature has also suggested that the successful service recovery strategy should be able to improve a number of post-recovery consumer outcomes (Wirtz and Mattila, 2004). For example, a customer who experiences a failed service encounter can possibly continue purchasing a service from the same service provider, if offered compensation to their satisfaction, yet they may no longer be fully loyal to the service provider and therefore start to spread negative WoM referral (Bhandari and Polonsky, 2004). Thus, the success of service recovery cannot be determined based on an improvement in only one consumer outcome while ignoring other outcomes (Parasuraman et al., 1991). In this example the consumer's repurchase intentions are maintained by offering compensation but loyalty and positive WoM referrals are lost. Clearly, this suggests that recovery actions should be able to improve multiple consumer outcomes.

In relation to this, several researchers have indicated the need for further investigations into the combined effect of recovery actions on a range of consumer outcomes (e.g., Hoffman, Kelly and Rotasky, 1995; Mattila, 2001; and Smith et al., 1999). Following the guidelines of existing studies, Mattila and Cranage (2005) have recently attempted to investigate the effect of multiple service recovery actions on consumer outcomes in a restaurant setting. Their research findings also suggested that consumer outcomes could vary across different combinations of recovery actions.

The success of a service recovery strategy can also differ depending on other factors, such as the type of service failure (Zemke and Bell, 1990). Smith et al. (1999) suggested that failure to perform the service as promised by the organisation can be encounter-based (process failure) and outcome-based (outcome failure). Although the importance of the type of service failure is acknowledged in the literature (e.g., Smith et al., 1999; Zhu et al., 2004), existing studies have not investigated the impact of different types of service failure on consumer outcomes. Mattila (2001, p.592) also identified this gap in the literature and suggested it should be addressed in future research. According to these researchers, "different types of failures or different levels of atonement might produce differential responses". The present thesis seeks to address

this gap by examining the impact of recovery actions on consumer outcomes in both process and outcome failure.

1.6 Aims of the study

The aims of this study are divided into: a) general aim and b) specific aims. The general aim, on the one hand, seeks to examine the effect of service recovery actions on consumer outcomes. This includes both existing overall service failure as well as whether there are differences in consumer outcomes, based on the two types of service failure: process failure and outcome failure. The specific aims seek to investigate, first, how service recovery actions (discussed in Section 2.6) impact on a range of consumer outcomes (discussed in Section 2.3 and Section 2.7), second, whether there are any interaction effects of recovery action on consumer outcomes, and third, whether consumer outcomes differ with service recovery actions (individually as well as in combination) based on the type of service failure (process and outcome).

Therefore this study firstly, aims to investigate how an individual service recovery action impacts on an outcome variable. This will indicate whether there is an improvement or deterioration in an outcome variable. Secondly, this study aims to also investigate whether there is any interaction effect of variables on an outcome variable. Although an interaction effect indicates whether there is any effect on the outcome variable, this does not identify whether the effect causes an improvement or deterioration in a dependent variable. In order to identify these effects, a researcher requires further analysis by comparing means of each level of effect variables. Computing means is beyond the scope of this thesis, however, an example of how an interaction affects on a dependent variable will be given in Section 7.5 (page 224) of this thesis.

Seven consumer outcomes, which will be discussed in this thesis in Section 2.7, have been identified in the literature as post-recovery consumer outcomes. These include: repurchase intent, expectation update, complaint motive, overall satisfaction, switching intent, enhanced loyalty, and WoM referral.

General Aim

To examine the impact of service recovery actions (both organisational service recovery actions and employee service recovery actions) on a range of post-failure consumer outcomes in a given service failure situation.

Specific Aims

1. To examine the **direct effect** of varying service recovery actions on a range of consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.
2. To examine whether there are **interaction effects** amongst service recovery actions on a range of consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.
3. To examine whether the effects of **individual** service recovery actions on consumer outcomes vary across failure types (process failure and outcome failure).
4. To examine whether the **interaction effects** of service recovery actions on consumer outcomes vary across failure types (process failure and outcome failure).

1.7 Research Questions

In order to achieve both general and specific aims included in Section 1.6, the following set of research questions were developed:

Main question:

How do varying service recovery actions, which comprise organisational service recovery actions (i.e., compensation and empowerment) and employee service recovery actions (i.e., response speed and apology), affect the consumer outcomes?

Sub Questions:

1. How does each service recovery action (i.e., compensation, empowerment, apology and response speed) impact on consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral?
2. Are there any combined effects of i) empowerment, ii) compensation, iii) response speed, and iv) apology on consumer outcomes (i.e., repurchase intent, expectation update, complaint motive, overall satisfaction, switching intent, enhanced loyalty, and WoM referral)?
3. Will consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral vary across the type of service failure with individual service recovery actions?
4. Will consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral vary across the types of failure with multiple service recovery actions (i.e., amongst organisational service recovery actions and employee service recovery actions)?

1.8 Projected significance of the thesis

This research is expected to make a number of contributions to theory and practice. Firstly, this thesis will examine direct effects of a range of service recovery actions, i.e., compensation, empowerment, apology and response speed, on multiple consumer outcomes. Along with direct effects, this study will also examine the interaction effects of service recovery actions on consumer outcomes. The results obtained will then be compared to identify whether the consumer outcomes differ with the implementation of a service recovery strategy, which incorporates more than one service recovery action. That is, the difference in consumer intentions (e.g., repurchase intent) resulting from one service recovery action (e.g., refund) compared to the results of the application of more than one service recovery action (e.g., refund and apology together) at a time. Therefore, this research is expected to add a new dimension to the formulation of

recovery strategy by identifying both the individual and combined effects of recovery actions on consumer outcomes.

Secondly, while previous studies have proposed service recovery strategies based on the impact service recovery actions individually on a few consumer outcomes, this thesis will examine the impact of a range of service recovery actions on seven different consumer outcomes. This study recognises the suggestions of previous studies (e.g., Kau and Loh, 2006; Wirtz and Mattila, 2004; Zhu et al., 2004) that there is a need to examine a range of consumer outcomes in order to rate service recovery strategy as successful. This study specifically examines seven consumer outcomes, which are suggested by previous studies (e.g., Bhandari et al., 2007; Hocutt et al., 2006). The findings of this study are expected to be helpful to guide industry practitioners in developing their recovery strategies for responding to a service failure. In addition, firms will also be able to design recovery strategies based on the findings of this study in order to improve specific post-failure consumer outcomes.

Thirdly, past research has acknowledged the existence of two types of service failure (e.g., Lavesque and McDougall, 2002; Stauss, 2002). One is process failure, which represents poor performance while undertaking the service delivery process (Parasuraman et al., 1985). Another is outcome failure, which represents the unsatisfactory outcome of overall service performance (Kau and Loh, 2006). Past research does not seem to have explored the difference between these failure types (Zhu et al., 2004). By incorporating two types of failure, this study will therefore be the first to examine the variation in consumer outcomes across service failure type (process failure and outcome failure). The results obtained from this examination will thus give more guidance with regard to which service recovery action (e.g., apology, speed, empowerment, compensation) will be more appropriate for each type of the service failure (process failure or outcome failure). These findings will help practitioners in developing their recovery strategy to get desired results over a range of consumer outcomes (a detailed discussion on consumer outcomes is included in Section 2.7).

1.9 Thesis structure

This thesis comprises eight chapters. Chapter One has introduced the key concepts used in this thesis and provided research aims, research questions and significance of this

thesis. Specifically, this chapter has included an overview (Section 1.1), background of the service process (Section 1.2), key concepts used in the thesis (Section 1.3) and a definitional framework (Section 1.4). A discussion on the identification of research problems within previous studies is presented in Section 1.5. Aims of this research are included in Section 1.6, research questions are included in Section 1.7 and the significance of this thesis is discussed in Section 1.8. After the brief explanation on the structure of this thesis (Section 1.9), Section 1.10 concludes with a summary of Chapter One.

The next chapter (Chapter Two) reviews the literature related to service failure and service recovery. Section 2.1 introduces the chapter, Section 2.2 examines the type of service failure and Section 2.3 explains the consumer responses to the service failure. Section 2.4 explores the response of the service provider to service failure (i.e., recovery actions), and Section 2.5 describes service recovery and types of service failure. Recovery actions that can be taken in response to service failure are given in Section 2.6. This Section also expands on organisational service recovery actions: a) refund; b) replacement; c) employee empowerment; and also on employee service recovery actions: a) apology; and b) speedy response to the service failure. Section 2.7 identifies a range of post-recovery consumer outcomes within the literature. Repurchase intent, loyalty, complaint motive, satisfaction, switching intent, expectation update and WoM referral are most frequently identified as consumer outcomes in the existing literature (Bhandari et al., 2007). A comparison of the research aims of this thesis with those of previous studies is given in Section 2.8, and finally, Section 2.9 concludes the chapter.

Chapter Three discusses the conceptualisation of service recovery actions and post-recovery consumer outcomes. Specifically, Sections 3.2 (service recovery), 3.3 (recovery actions) and 3.4 (post-recovery outcomes) include a discussion on conceptualisation. Section 3.5 then provides insight into how service failure types are related to service recovery and develops the arguments for the need to examine the impact of service recovery action on each type of service failure.

The conceptual framework is provided in Section 3.6 and comprises three sections: typology of service failure; recovery action; and consumer outcomes. Section 3.7 justifies the framework by explaining the relationships between service failure, service

recovery and consumer outcomes. Based on the proposed framework, Section 3.8 gives the background to the hypotheses which will be tested to achieve the research aims of this thesis. Finally Section 3.9 includes the hypotheses that are formulated based on the research questions provided in Chapter One, on the literature review in Chapter Two and on the conceptual framework outlined in Section 3.5. Section 3.10 concludes Chapter Three.

Chapter Four explains the research methodology implemented in this thesis in order to answer the research questions (defined in Section 1.7). Section 4.1 introduces the chapter, while Section 4.2 introduces the research design. Section 4.3 reviews past scenario-based studies. Section 4.4 provides an outline of the research process. Section 4.5 overviews the sample frame used in the study. Section 4.6 discusses ethical issues associated with the research, while Section 4.7 overviews the data collection process used in this study. Section 4.8 discusses the data analysis techniques used to test the hypotheses, and finally, Section 4.9 summarises this chapter.

Chapter Five focuses on the preliminary analysis of the data. This includes a discussion of the sample characteristics and validity of the constructs. Specifically, Section 5.1 introduces the chapter, Section 5.2 describes demographic characteristics of the respondents, Section 5.3 provides the tests of scale reliability, and Section 5.4 expands on the discussion of the validity of the scenario and questionnaire used in the study survey. Section 5.4 also discusses the characteristics of the data including the distribution and normality as well as manipulation checks of scenario and questionnaire. Finally, a summary of the chapter is provided in Section 5.5.

Chapter Six presents the results of the analysis undertaken to test the hypotheses. Specifically, Section 6.1 overviews the chapter, and Section 6.2 discusses the statistical tools used to explore the direct and interaction effects of independent variables on seven consumer outcomes. Section 6.3 introduces the statistical terms used throughout the analysis within Chapter Six. Section 6.4 examines the main effects of service recovery actions while Sections 6.5 and 6.6 examine the combined effects of recovery actions, as identified in Section 2.7. Section 6.7 examines direct effects across both failure types: process failure; and outcome failure. Section 6.8 examines two-way interaction effects and Section 6.9 examines three-way interaction effects within both process and outcome failures. Section 6.10 concludes Chapter Six.

Chapter Seven contains the interpretation and discussion of the results presented in Chapter Six. Specifically, Section 7.1 introduces the Chapter. Direct effects of service recovery actions in overall service failure and across types of service failure (process and outcome) are discussed in Section 7.2; and interaction effects of recovery actions are discussed in Section 7.3 (two-way interaction). Section 7.4 discusses three-way interaction effects among independent variables. Section 7.5 provides the summary of findings which also includes the comparison of analytical results with the hypotheses proposed in Section 3.9. A summary of support for the hypotheses is also provided (Appendix D, page 294). Section 7.6 concludes the chapter.

Finally, Chapter Eight summarises the overall findings of the thesis. Firstly, Section 8.1 introduces the chapter. Justification for the study is given in Section 8.2. The contribution of the study to the theory is discussed in Section 8.3, and implications for the service industry are discussed in Section 8.4. Limitations of this study are discussed in Section 8.5. Directions for future research are proposed in Section 8.6 and finally, Section 8.7 provides the conclusion to this thesis.

1.10 Summary

This chapter provided the introduction to the thesis. Specifically, Section 1.1 included an overview of this chapter. Section 1.2 discussed service processes and explained that things may go wrong during the process of service performance. Various key concepts used within this study in relation to service delivery were defined in Section 1.3. These included: a) types of failure; b) actions in response to a service failure; c) service recovery; and d) consumer outcomes. A definitional framework was provided in Section 1.4, which showed the link between key concepts discussed in Section 1.3.

In addition, the gaps within the existing literature were identified in Section 1.5 and the aims and research questions of this research introduced in Sections 1.6 and 1.7. These research questions and objectives are based on a brief examination of existing research in Section 1.5 which suggests that, although service recovery strategies are already in action within many service organisations, these organisations have not implemented the specific strategies that are suitable in a specific service failure, whether process failure or outcome failure. Thus, this chapter has highlighted the need for the formulation of a recovery strategy for each type of service failure.

Further, the proposed significance of this study is included in Section 1.8 and the structure of this thesis is presented in Section 1.9. Finally a summary of the chapter is given in Section 1.10. The examination of existing studies, which is included in Sections 1.3 and 1.5 of this chapter, is further explored in the next chapter.

Chapter Two

LITERATURE REVIEW

2.1 Introduction

The key concepts used in this thesis were outlined in Chapter One. These are further expanded in the current chapter, which also highlights the research literature relevant to the aims of this thesis (Section 1.6).

The difference identified within the existing literature between a process failure and an outcome failure is discussed in Section 2.2. A discussion of consumer responses to service failure is included in Section 2.3, and service providers' responses are discussed in Section 2.4. Section 2.5 expands on service recovery.

Section 2.6 reviews current trends in developing service recovery strategies where a range of service recovery actions is identified. Section 2.7 explores the need to improve post-failure consumer outcomes (discussed in Section 2.3). Seven consumer outcomes are identified as the most relevant for future investigation. A gap in the literature is identified in Section 2.8 where the present study is compared with past studies in service failure and service recovery. Section 2.9 summarises this chapter.

2.2 Typology of service failure

A consumer's decision to purchase a service is influenced by many factors. For example, there are certain expectations that a customer assumes a service provider will fulfil during the course of the service performance. These expectations are based on the promises of a service provider made through communication channels such as advertisement and promotion. However the ongoing human involvement in the service performance, as the services are inseparable, creates a challenge for service providers to meet customer expectations in every instance (Zeithaml and Bitner, 2000). If service organisations are unable to fulfil promises, the perception of service performance by a customer is likely to be negative, as the actual service performance does not meet customer expectations. Unfulfilled customer expectations are likely to lead to a service failure.

According to Swanson and Kelley (2001a), service failure occurs when consumers perceive that they did not receive what they had expected. Therefore, service failure is related to the consumer expectation of service performance. The consumer expectation of service performance is a pre-purchase assumption of service standards (Lovelock et al., 2004). If the service received does not meet expectation, consumers are likely to rate it as an unsatisfactory service experience (i.e., service failure). In order to satisfy a customer, organisations therefore should meet consumer expectations (Zhu et al., 2004).

However, it is not always possible for organisations to meet customer expectations while performing a service (Zemke and Bell, 1990). The literature seems to suggest that service failures are inevitable (Hart et al., 1990; Hoffman and Kelley., 2000; Keaveney, 1995). A service failure impacts on consumer perceptions in two ways (Lovelock et al., 2004). Firstly, it negatively influences consumer perceptions of service delivered; and secondly, it gives the impression of the possibility of poor performance in the future. In such circumstances, the image of the service provider will suffer. This can impact negatively on consumer intentions in future transactions, resulting in less frequent purchases of a service. Therefore, it is important for service organisations to identify, track and analyse a service failure (Hoffman et al., 1995) and take corrective actions to overcome the negative consequences of a service failure (Wirtz and Mattila, 2004).

Previous research in the service recovery area has indicated that approaches to deal with negative effects of a service failure are complex (Tax et al., 1998). Johnston and Fern (1999) suggest two reasons for this: (1) services are situation specific and it is unlikely that customer expectations are identical in two service encounters; and (2) each customer is different and, therefore, the needs of a customer and their expectations of service performance are also likely to be different.

Past research seems to recognise this difference (i.e., services are situation specific) amongst varying service recovery encounters. For example, Smith et al. (1999) suggest that service failures can occur at two stages of the service delivery process: while delivering the service; and when service delivery is completed. Similarly, Parasuraman et al. (1991) suggest that a service failure can be related to consumers' negative perceptions of a service during service delivery as well as when overall performance of the service is viewed as poor. Thus, service performance can have two dimensions: a

process dimension; and an outcome dimension. The following sub-sections will examine in more detail the service failures that can occur during the process of service delivery and service failures due to the poor overall performance of a service.

2.2.1 Failure in the process dimension of a service performance

The process dimension of a service involves the manner in which the service is delivered (Bitner, 1990; Hui et al., 2004; Parasuraman et al., 1985) and how a customer receives the service (Gronroos, 1988). A service process typically involves symbolic exchanges rather than the core service performance (Ahmad, 2002, Hui et. al., 2004). When service performance does not meet customer expectations of the service delivery process, the service fails even if the core service meets expectations. This type of failure, according to Parasuraman et al. (1991), is a process failure. In this type of failure, the delivery of the service is flawed or deficient in some way (e.g., a hotel desk clerk treats the customer rudely during check-in).

Furthermore, Sarel and Marmorstein (1999) suggest that customers may classify losses they perceived due to a service failure into a process loss (poor process of service delivery) and an outcome loss (the overall loss). Zhu et al. (2004) have proposed a mathematical model of service failure in which they also support the existence of process failure.

Researchers such as Berry and Parasuraman (1991, p.46) acknowledge the existence of process failure, noting, “A process dimension of service failure is prominent”. However, in general, the literature does not focus on failures in the process dimension of service performance. For example, studies that have examined variations in consumer perceptions of service performance in process failure situations are virtually ignored (Swanson and Kelley, 2001b). It does not appear that any study has been specifically conducted to identify the effect of corrective action on minimising the negative consequences of process failure (Boshoff, 1997). Therefore, questions related to the issue of how consumers respond to corrective actions when they experience process failure remain unexplored. One of the research questions of this thesis (identified in Section 1.7) explores this issue.

2.2.2 Failure in the outcome dimension of a service performance

The outcome dimension of a service encounter involves what customers actually receive after the completion of service performance (Gronroos, 1988; Parasuraman et al., 1985). An outcome failure occurs when service organisations do not perform the basic service (Kelley et al., 1993; Smith et al., 1999). An outcome failure typically involves the inability of a service provider to perform the core service. For example, a reserved hotel room is unavailable because of overbooking (McColl-Kennedy and Sparks, 2003).

Although the types of failure were not differentiated in past studies, it appears that most of the empirical studies focused on service failures involving the final outcome of the service (e.g., Boshoff and Leong, 1998; Johnston and Fern, 1999; Levesque and McDougall, 2002). Similarly, service failure, as explained in the studies of Boshoff (1997) and Spreng, Harrell and MacKoy (1995), is the result of an overall dissatisfaction, which is recognisable after the completion of the service process.

Overall, the existing literature provides no analysis of whether an outcome failure alone is important or whether organisations should consider process failure as well (Hui et al., 2004; Smith et al., 1999). The aim of this study therefore also includes the investigation of differences in consumers' future intentions following an outcome failure experience as compared to a process failure experience. The examination of differences in consumer perceptions of the corrective actions of service providers following varying types of service failure will address sub-questions 3 and 4 listed in Section 1.7.

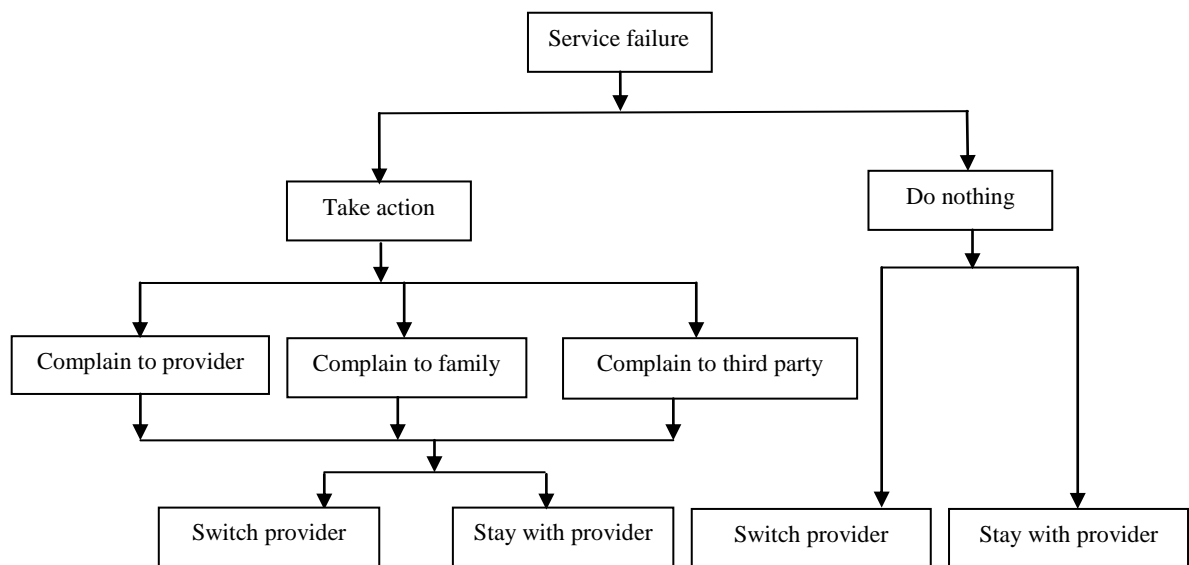
2.3 Customer responses to service failure

When a service performance does not meet expectations, consumer attitudes are less likely to be in favour of the service provider (Boshoff, 1997). For example, consumer intentions can vary with service failure experience as compared to no failure (Swanson and Kelley, 2001b). That is, service failure can influence consumer behaviours such as repurchase intent, WoM referral, complain motive, and service switching (Mattila, 2001). This is consistent with the suggestions of Boshoff and Leong (1998) who relate consumer intentions to service performance.

Furthermore, Swanson and Kelley (2001b) discussed satisfaction, loyalty, and expectation as examples of consumer outcomes. Similarly, Lovelock et al. (2004) and Mattila (2001) suggest that consumer outcomes can appear as changes in their intentions in future.

Similarly, Parasuraman (1991) suggest that customers can take a range of actions after experiencing a service failure (Figure 2-1). For example, customers can decide either to switch service provider, engage in complaining, or both (Davidow, 2000). Customers may also decide to switch the service provider passively without complaining. Parasuraman (1991) further suggested that the complaint motives are not limited to the service provider but also extend to family and any third parties.

Figure 2-1: Courses of actions available for customers after service failure



(Source: Parasuraman, 1991)

In a review of the literature, Bamford and Xystouri (2005, p.309) identified four reasons for consumer preference of service switching rather than complaining: “customers believe that the organisation will not be responsive; they do not wish to confront the individual responsible for the failure; they are uncertain about their rights and the firm’s obligations; and they are concerned about the high cost in time and effort of complaining”. Keaveney (1995) in her study found inconvenience, core service failure, service encounter failure and response to service failure as the reasons for service switching.

Past studies indicate that consumer responses after a service failure also include an expression of dissatisfaction (Patterson and Smith, 2001). Poon, Hui and Auh (2004, p.1531) explained the impact of dissatisfaction in a service experience in these words:

Consumers will not go back to the shop after a negative experience if they believe that they are not responsible for the failure. To protect their self-interest, they will try to prevent the shop from giving them problems in the future [by complaining]. If the consumers perceive the negative event to be stable, they will stop patronizing the shop [switch provider] for fear of further experiences of bad service.

One method of expressing dissatisfaction in a service failure situation is through negative WoM (Ndubishi and Ling, 2005). Stauss and Schoeler (2004, p.148) observe that positive WoM recommendations benefit the company by “supporting the acquisition of new customers.” WoM acts as an independent source of information that carries particular weight in decisions made by consumers with regard to repurchase or exit from a service relationship (Zeithaml and Bitner, 2000). Therefore, managing WoM intention is an important management resource for improving customer recommendations of a service.

Studies often compare customer pre-purchase expectations with post-failure expectations (e.g., Michel, 2001). It is generally found that the results are not identical in both situations (i.e., pre-purchase versus post-failure expectations), indicating that customers tend to update their expectations of the service provider following a service failure (Grace and O’Cass, 2001). The incident, which contributes to negative (poor) expectations of a service provider, is the result of the customers’ comparison of their pre-purchase expectations with the actual service received (Zeithaml and Bitner, 2000). Lovelock et al. (2004) describe this effect as the “expectation disconfirmation”.

In addition to consumers updating future expectations of service performance, customer loyalty can also be affected when service fails (Maxham and Netemeyer, 2003). Studies of customer loyalty (e.g., Lavesque and McDougall, 2002) have found that loyalty is enhanced when the service is performed to the customer’s satisfaction (i.e., without service failure). Further, customer satisfaction is also an outcome of service performance. If the service performance is below expectation, customer satisfaction is hard to achieve and therefore a service failure is likely to occur (Hoffman et al., 2003).

This study aims to investigate whether post-failure outcomes (i.e., consumer responses to the service failure incident) can be improved with service recovery activity. Previous studies have attempted to identify whether service providers' responses affect post-failure consumer outcomes. A later section of this chapter (Section 2.7) will include an extensive literature review of post-recovery consumer outcomes (i.e., customer reactions after a service provider's response to the service failure). However, it is first necessary to provide an overview of service providers' responses to service failure (i.e., activities undertaken by service providers in response to service failure).

2.4 Providers' responses to service failure: Service recovery

It was identified in Section 2.2 that service failure is inevitable (Hart et al., 1990) and therefore consumer intentions are likely to vary with service performance (Hoffman et al., 1995). As noted by Mattila (2001), service failures have the potential to destroy a customer's supportive attitude towards a service provider. For example, failure decreases loyalty and increases the switching intention of a customer (Eisingerich and Bell, 2007). Therefore, organisations need to have a strategy to deal with service failure when it occurs. The adverse impact of a service failure on consumer perceptions can be addressed with effective service recovery (Bamford and Xystouri, 2005).

As indicated in Section 1.3, service recovery is the proactive seeking out and dealing with service failures (Johnston and Fern, 1999). In other words, service recovery helps to manage consumer reactions to the service failure (see Section 2.3). There are four key aspects of service recovery. Firstly, service recovery helps to put things right when they go wrong (DeWitt and Brady, 2003). Therefore, service recovery can improve consumer perceptions of service standards. This means that post-recovery consumer outcomes (e.g., repurchase intent, WoM referral, complaint motive, service switching, satisfaction, loyalty, and expectation) can be improved with service recovery (Smith and Bolton, 2002; Tax et al., 1998).

Secondly, research indicates that the cost of attracting new customers is much higher than maintaining existing customer relationships (Keaveney, 1995). Recruiting a new customer involves higher investments in advertising and promotional activity and more time in making the purchase decision (Lovelock et al., 2004). Thus, firms can

substantially reduce the potential cost of attracting new customers by improving consumer repurchase intentions or reducing service switching to competitors.

Thirdly, an effective service recovery sometimes creates a paradox in the delivery process (Smith et al., 1999). Empirical evidence indicates higher customer loyalty and satisfaction are associated with successful service recovery compared to situations in which no service failure occurs (Johnston and Fern, 1999). The recovery paradox seems to suggest that customers have a realistic understanding that occasional mistakes are inevitable and, therefore, that some situations may occur in which providers do not maintain expected service standards (Boshoff, 1997; Bailey, 1994). However, customers expect service providers to be proactive in resolving the issues after the failure (Andreassen, 2001; Hart et al., 1990). This means that organisations should not give up once the service fails. Rather, they should focus on activities through which the impact of failure can be repaired or ameliorated.

Fourthly, some studies have indicated that service recovery is not merely about fixing the problem but also making sure it that will not happen again (Nancy, 2002). A service recovery process can turn an angry and frustrated customer into a loyal one (Andreassen, 2001). Satisfaction with service recovery increases the customer's willingness to recommend the firm to others (Zeithaml et al., 1990). According to Zemke and Bell (1990, p.43), service recovery is, "a thought-out, planned process for returning aggrieved customers to a state of satisfaction with the organisation after a service or product has failed to live up to expectations". In other words, service recovery helps to maintain customer satisfaction with service performance even after low levels of service performance or service failure adversely affect customer perceptions.

2.5 Service recovery and types of failure

As previously noted, service failure has two dimensions: process failure and outcome failure. The existence of different types of failure is widely recognised in the literature (e.g., Parasuraman et al., 1991). As Lewis and Spyropoulos (2001, p.38) have noted, "the outcome dimension is what the customer actually receives as part of the firm's efforts to recover, whereas the process dimension of service recovery is concerned with how this is done".

Similarly, Lovelock et al. (2004) observed that services are situation specific; that is, the customer's perception of a specific service encounter is unlikely to be the same in another service situation. In short, no two-service situations are identical in terms of consumer perception of service performance.

Since two different service settings are likely to be different in process and outcome dimensions of service failure, developing a standard service recovery strategy to deal with both process failure and outcome failure does not seem practical (Bhandari and Polonsky, 2007). Hence, a service recovery strategy intended to deal with a process failure may not be universally effective in dealing with an outcome failure (O'Neill and Mattila, 2004). Therefore, separate recovery strategies should be developed that are based on both process failure and outcome failure (Boshoff and Staude, 2003).

Despite strong empirical support for this typology of service failures (Spreng et al., 1995) and suggestions from scholars for the need to investigate the differential outcomes of recovery strategies in process failure and outcome failure (e.g., Nguyen and McColl-Kennedy, 2003; Smith et al., 1999), this researcher was not able to find any evidence of research in the past that investigated the effect of recovery strategy based on differences in process and outcome dimensions of service failure. The present study attempts to identify if there is any difference in effects of service recovery strategies by comparing post-recovery consumer outcomes in both process failure and outcome failure situations.

Recovery strategies applied to process failure and outcome failure are referred to as process failure recovery and outcome failure recovery, respectively, throughout this thesis. While Section 3.3 defines and explores the concepts of process failure recovery and outcome failure recovery, the next section explores the service recovery activities that an organisation can undertake to deal with service failure.

2.6 Service recovery actions

As stated earlier (in Sections 1.3, 1.5 and 2.5), firms need to undertake recovery actions in order to deal with a service failure and regain consumer confidence (Kelley et al., 1993). The need to implement service recovery actions is particularly important to improve consumer outcomes (refer to Section 2.3). For example, service recovery improves consumer loyalty (Hoffman et al., 1995) and referrals to family and friends

(Swanson and Kelley, 2001b), and reduces complaint motive (McDougall and Levesque, 1999; Davidow, 2000). Similarly, an effective service recovery action can help to meet consumer expectations (Kelley et al., 1993; Stauss, 2002), thereby increasing overall satisfaction (Spreng et al., 1995) and reducing switching intentions to competitors (Ranaweera and Prabhu, 2003).

Zemke and Bell (1990) were the first to identify the range of activities that can be undertaken in a service recovery process. They proposed that apology, reinstatement, and follow up can be the key components of a service recovery process. Kelley et al. (1993) subsequently identified that employee empowerment, and replacement, discount and refund can substantially improve post-failure consumer outcomes. Similarly, Bitner (1990) examined other activities that can be implemented to overcome the negative consequences of service failure. Together, these authors suggested that explanation, apology and compensation can each play a vital role in the service recovery process.

More recently, literature seems to categorise service recovery action into employee service recovery actions and organisational service recovery actions (e.g., Zhu et al., 2004). Employee service recovery actions (as defined in Section 1.5) are related to the response of employees to the service failure, such as providing an immediate response to a consumer complaint or offering a personal apology for any inconvenience. Organisational service recovery actions, on the other hand, are the policies and guidelines of the firm to deal with service failure experience, such as offering some kind of compensation, or empowering employees to deal effectively with service failure.

Overall, the literature seems to agree on the possibility of improving consumer outcomes with service recovery activities if firms are able to focus on a quick response to failure, with apologising, compensation and empowerment (e.g., Boshoff, 1997; Mattila, 2001; Schoefer and Ennew, 2005; Worsfold, Worsfold, and Bradley, 2007; Zhu et al., 2004). The following sections explore the possibility of improving the success of service recovery strategies by incorporating these recovery actions.

2.6.1 Compensation

One of the most frequently suggested methods in the literature to deal with negative consequences of service failure is to offer some kind of tangible benefit to the customer

after a service failure (Mattila, 2001). In other words, customers need to be compensated after the service failure. According to Duffy et al. (2006, p.114), compensation involves, “providing something extra in atonement”. Compensation is the best method of minimising the negative image of a firm following the disappointing service experience of a customer (Palmer et al., 2000; Wat and Shaffer, 2005). From a social science perspective, compensation is regarded as the means to achieve an equitable exchange relationship (Alexander, 2002; Oliver and Swan, 1989). In recent years, the service recovery literature has linked this social exchange theory to service recovery outcomes (e.g., Smith et al, 1999; Wirtz and Mattila, 2004). Perceptions of service recovery are affected by distributive justice, which involves the allocation of compensation in the form of, for example, discounts, free services and refunds by the organisation in response to the inequity caused by a service failure. Existing studies recommend that service firms need to compensate customers in order to take account of their need for distributive justice (Bitner, 1990).

Zemke (1994) suggests that compensation is a good strategy for restoring equity to an exchange relationship when one party has been harmed by the other. Tax et al. (1998) used content analysis in their study for evaluations of service complaint experiences and found that compensation is an important recovery action associated with consumer perception of fairness. Boshoff's (1997) exploratory research also suggested that a higher level of compensation results in higher evaluations of distributive justice. In their recent study, Dutta, Venkatesh and Parsa (2007, p.361) noted:

Providing compensation seems to be a better strategy of handling service failures as they seemingly are most effective in reducing the sense of disenchantment that customers obviously suffer in the aftermath of a service-failure and ensuing recovery action.

As a service recovery strategy, a customer can be compensated by offering additional service or replacing with an alternative service such as upgrading to a better hotel room, a free ticket or a free meal (Bitner, 1990). When service providers do not have the option of replacing the service, they often try to compensate their customers through monetary amounts (Megehee, 1994). Taken together, it appears that compensation

strategies mainly comprise either refund or replacement (Boshoff and Leong, 1998; Lewis and Spyropoulos, 2001).

Both forms of compensation (refund and replacement) have been examined in the literature and are found to be effective service recovery actions. For example, Hoffman et al. (2003) and Lewis and Spyropoulos (2001) found that cash refunds can retain customers that might otherwise be lost to the service organisation. Zemke and Bell (1990) also believe that dissatisfied customers expect some refund as compensation. Similarly, Boshoff (1997) reported that a refund has a significant positive effect on satisfaction. A discount on bills can also improve customer intentions of repurchase, WoM referral and satisfaction (Wirtz and Mattila, 2004).

In addition to refund, replacement is identified as another important way of compensating an unsatisfied customer (Boshoff, 1997; Kelley et al., 1993; Lewis and Spyropoulos, 2001; Smith et al., 1999; Tax et al., 1998). According to Hoffman et al. (2003), customer satisfaction can be achieved by either total replacement of a service or by a correction (e.g., recooked food, repairing a damaged garment) or substitution (e.g., providing a similar product to replace the original).

It appears that both refund and replacement are important in improving consumer outcomes. In their investigation of critical incidents, Hoffman et al. (2003) identified that, out of 16 compensation attempts, organisations compensated 10 customers by offering replacement and only six by refund. Their study provided an interesting avenue to examine how consumer responses differ with both types of compensation. Surprisingly, there have been no empirical investigations into which type of compensation (refund or replacement) is more helpful for improving consumer outcomes in the service recovery process. The present study therefore attempts to make an important contribution to the identification of how the types of compensation impact on consumer outcomes after a service failure.

2.6.2 Empowerment

Another frequently examined service recovery action is employee empowerment, which refers to, “the desire, skills, tools and authority as a frontline employee to offer services to the customer” (Zeithaml and Bitner, 2000, p.302). Empowerment is the measure of the authority an employee is given to make decisions as to whether to meet

or exceed the expectations of a customer (Eccles and Durand, 1998). Empowerment helps service organisations achieve their goals by sharing organisational commitment with frontline employees (Carson et al., 1999; Sparks, Bradley and Callan, 1997). In a more elaborate characterisation, Bowen and Lawler (1992, p.35) define the preconditions of empowerment as involving the provision of “information about the organization’s performance, rewards based on the organization’s performance, knowledge that enables employees to understand and contribute to organizational performance; and power to make decisions that influence organizational direction and performance”.

Empowering staff is an important strategy for dealing with an unsatisfactory service experience (Boshoff and Leong, 1998; Hartline, Wooldridge and Jones, 2003). Goodwin and Ross (1992) indicate that organisations prefer to empower the customer contact staff to solve the problem quickly. The greater the need for service recovery, the greater will be the firm’s need to empower its employees (Hart et al., 1990; Parasuraman et al., 1991). This finding is also supported in the study of Dutta et al. (2007, p.360) who stated:

Empowered employees tend to be satisfied employees and increasing job satisfaction among service personnel has the potential of generating higher customer satisfaction with the service, repeat purchases by current customers, and positive word-of-mouth communications.

Bowen and Lawler (1992) suggest that levels of empowerment impact on customer perceptions of service performance. Similarly, Sutton, Verginis and Eltvik (2003) found that empowerment has a positive effect on perceived customer service quality. Therefore, empowerment is desirable in customised, relationship-oriented service settings that require strong interpersonal skills of service staff (Bradley and Sparks, 1997). According to Valenzuela et al. (2005), empowerment also improves the working environment by engaging employees at an emotional level. For example, empowered employees are in a better position to decide on the spot the most appropriate or effective means for achieving customer satisfaction (Spreitzer, 1995; Tschohl, 1998). Consistent with this, Keaveney (1995) suggests that empowerment is important for handling customer complaints because complaints are generally made to front-line staff

and organisations should, therefore, help front-line employees to be more effective by empowering them. There are some studies which focused on failed service encounters. Therefore, a study that identifies the role of empowerment in improving consumer outcomes after a failed service encounter is needed. Keaveney (1995, p.78) also noted this gap within the service literature with regard to “consumer switching intentions” and suggested that future researchers could investigate the role of empowerment in a service failure situation.

2.6.3 Apology

In addition to empowerment and compensation, the literature suggests that apology is also an important service recovery action and improves customer perceptions of service. As noted by Zemke and Bell (1990, p.44), “when disconfirmation does occur, most consumers want the service they were promised in the first place, along with some personal attention and a decent apology”. The reason why people take the trouble to complain is that they expect at least an apology, if not the denied service. Eccles and Durand (1998) also suggest that service failure can be managed by a simple apology.

Boshoff and Leong (1998, p.42) suggest an apology is important for three reasons:

First, it can be done quickly and, in this way, reduce the customer’s anxiety. Second, it conveys to the customer that the problem is being attended to and that the firm cares about them and their wellbeing. Third, a complaining customer is often an angry customer.

An apology can defuse customer anger and curb the harmful effects of service failure such as negative WoM (Nguyen and McColl-Kennedy, 2003). An apology is recognition that the customer has been inconvenienced and thus enhances the possibility of a continuing relationship (Zemke and Bell, 1990). Together, there is the possibility of deterioration² in consumer intentions in absence of an apology when a customer experiences a service failure. Conversely, there is the possibility of an improvement in consumer intentions with apology.

² The term ‘deterioration’ is used here to represents opposite to ‘improvement’.

Empirical evidence also suggests that an apology is more effective when accompanied by some tangible token of restitution (Boshoff, 1997), indicating an interaction effect between recovery actions such as apology and compensation. However, the literature does not seem to identify the combined effects of apology with other recovery actions (e.g., empowerment).

2.6.4 Response Speed

Past studies have found that three major employee behaviours are critical in determining customer perception of service performance: employee response to system failures; employee response to customer requests; and unsolicited employee actions (Bitner, 1990). Taken together, these critical factors are associated with the response times in which an employee can quickly act to solve the problem (Boshoff, 1997). Researchers seem to agree that rapid response leads to an increase in repeat patronage (Liu, 2006) and WoM referral (Donavan, Brown and Mowen, 2004) from existing customers.

Rafiq and Ahmed (1998) suggest that a speedy response is essential in service encounters to rectify them quickly and satisfactorily. Therefore, an important aspect of any service product is the speed of response in service failure situations (Schoefer and Ennew, 2005). This perspective is supported by Bamford and Xystouri (2005, p.307) who note that, “service failure and the subsequent complaints from customers are a likely occurrence over a product/service lifetime and the rapid, effective handling of these has proven to be vital in maintaining customer satisfaction and loyalty”. Andreassen (2000) also suggests that a speedy recovery is important when things go wrong. McCole (2004) argues that the task of converting a dissatisfied customer into a satisfied one is best done by quick actions. Frontline staff can play a crucial role by responding quickly to a problem because the speedy recovery is particularly important to customers (Broderick et al., 2000).

From the literature reviewed in the above sections, it appears that service recovery has received considerable interest from researchers who have studied the impact of service recovery actions on consumer outcomes. Table 2-1 summarises the findings of recent studies that have investigated the impact of recovery actions on consumer outcomes. As can be seen, the impact of recovery actions on consumer outcomes were significant in

most of the studies (abbreviated with “S”), while others found the effects were not significant (abbreviated as “NS”). None of the studies examined all recovery actions (speed, apology, empowerment, refund and replacement). The blank cells in Table 2-1 indicate that the particular service recovery action was not examined within the study.

Johnston and Fern (1999) also compared existing studies in service recovery and concluded that the findings across the literature were not consistent. This agrees with the summary provided in Table 2-1. For example, Johnston and Fern (1999) did not attach any importance to compensation (included in Table 2-1 as refund and replacement) in improving consumer outcomes, whereas Bitner (1990) and Kelley et al. (1993) strongly recommended the need for compensation. Again, Hart et al. (1990) and Smith et al. (1999) found response speed to have considerable impact but Duffy et al. (2006) did not find it to be an effective recovery activity.

Table 2-1: Selected summary of literature examining the effects of service recovery actions

<div>Recovery action</div> <div>Researchers</div>	Response speed	Apology	Empowerment	Refund	Replacement
Boshoff (1997)	S	S		S	
Boshoff and Leong (1998)		S	S		
Bitner (1990)				S	S
Duffy et al. (2006)	S	NS		NS	NS
Hart et al. (1990)	S		S		
Hocutt et al. (2006)	S	NS		S	
Johnston and Fern (1999)	S	S		NS	NS
Kelley et al. (1993)		S		S	S
Mattila (2001)		S		S	
Smith et al. (1999)	S	S	S	S	
Swanson and Kelley (2001a)	S				
Wirtz and Mattila (2004).	S	S		S	

Key: S=Significant; NS=Not Significant; Blank cell=Not incorporated within the given study)

When Johnston and Fern (1999, p.73) compared existing studies, they envisaged that, “unfortunately, there is no one element of service recovery in which all authors agree”. Johnston and Fern (1999, p.74) explain that the reason for this discrepancy may involve the fact that, “a service recovery may be context specific”. That is, what dissatisfies or recovers customers in one service may be quite different to another and therefore, may vary with service context. In summary, research that investigates the combined effect of recovery actions on consumer outcomes is lacking. In sum, the comparison in Table 2-1 suggests the need for a study which incorporates a broader range of recovery actions in one research design in order to study the effects on consumer outcomes.

2.7 Consumer response to service recovery

Consumer reactions to service failure were discussed in Section 2.3, where it was suggested that consumer outcomes could differ in a service failure situation in comparison to a ‘no failure’ situation. Section 1.4 further explained consumer outcomes.

This section reviews how consumers react to the firm’s service recovery activities. The different outcomes caused by service failure can damage or negatively effect a firm’s reputation (Maxham and Netemeyer, 2003). This negative impact can, however, be minimised or completely avoided with service recovery. Service recovery, therefore, improves consumer outcomes and thereby reduces the negative effects of a service failure (Wirtz and Mattila, 2004). The literature indicates that a range of consumer outcomes is associated with service performance (Bhandari and Polonsky, 2007; Boshoff, 1997). This is consistent with the studies of Bhandari et al. (2007) and Wirtz and Mattila (2004) where it is suggested that, in order to rate a service recovery strategy as successful, a range of consumer outcomes should be improved.

Perhaps surprisingly, previous studies attempted to examine only a few, at most, three (e.g., Wirtz and Mattila, 2004) consumer outcomes at a time to evaluate the effect of service recovery strategy. One of the aims of this study is to investigate the effect of service recovery action on a whole range of consumer outcomes. Thus, an extensive review of the literature was performed to identify the consumer outcomes suggested by past studies that could be impacted upon by the service failure experience of customers.

The most discussed and widely recommended consumer outcomes are listed in Table 2-2.

Table 2-2: Literature sources for consumer outcomes

Consumer Outcomes	Literature Source
WoM referral	Blodgett and Anderson (2000), Blodget et al. (1993), Day (1980), Maxham and Netemeyer (2003), Ranaweera and Prabhu (2003).
Repurchase intent	Maxham and Netemeyer (2002), Palmer et al. (2000), Parasuraman et al. (1991).
Complaint motive	Andreassen and Best (1977), Day (1980), Maxham and Netemeyer (2002), Oliver and Swan (1989).
Enhance loyalty	Hirschman (1970), Maxham and Netemeyer (2002), Oliver and Swan (1989), Karatepe and Ekiz (2004).
Overall satisfaction	Andreassen (2000), Bolton (1998), Boshoff (1997), Boshoff and Staude (2003).
Expectation update	Bebko (2000), Ojasalo (2001), Sims and Anderson (2003).
Switching intent	Colgate and Lang (2001), Keaveney (1995), Ranaweera and Prabhu (2003).

The following sections discuss these post-failure consumer outcomes in more detail and subsequently explore the studies that have attempted to investigate the effect of service recovery actions on these consumer outcomes.

2.7.1 WoM referral

WoM referral has been identified as important consumer behaviour (Day, 1980; Maxham and Netemeyer, 2003). According to Swanson and Kelley (2001, p.195), WoM referral refers to, “an exchange of thoughts, ideas, or comments between two or more consumers, none of whom is a marketing source”. WoM referral appears to be important mainly because it provides face-to-face information to potential customers (Blodgett and Anderson, 2000) and helps the customer to make a purchase decision (Grace and O’Cass, 2001). Some studies have demonstrated that unhappy customers tell, on average, 10-20 people about their negative service experience (e.g., Lovelock et al, 2004; Tax et al., 1998). In other words, customers tend to spread negative WoM if

the service experience does not meet their expectations (Blodgett, Anderson and Walters, 1993).

According to Barnes, King and Breen (2004, p.142), the consequences of negative WoM referral include both loss of “an almost customer” and “lost earnings”³. In an attempt to find the number of customers who spread negative WoM, Keaveney (1995) found as many as 75 percent of customers engaged in ‘negative voice’ after a service switching. The importance of WoM in service settings is also reflected in the statement of Grace and O’Cass (2001, p.341) that WoM referral is, “the most cost-effective and powerful form of advertising”. Further, WoM referral acts as an independent source of information that carries particular weight in decisions made by consumers (Zeithaml and Bitner, 2000). Therefore, managing WoM is important for service providers to maximise customer retention (Liu, 2006). In addition to repurchase, WoM referral is also associated with customer loyalty and frequency of purchase (Eisingerich and Bell, 2007; Hart et al., 1990, Parasuraman et al., 1991).

WoM referral is an important form of communication for customers (Swanson and Kelley, 2001b). Research shows the majority of unsatisfied customers participate in negative WoM communication instead of written complaints (Richins, 1985). The WoM act of unsatisfied customers can also involve more than just negative referral. For example, it could be accompanied by third party complaints (Colgate and Lang, 2001), reduced loyalty (Stauss, 2002; Zemke, 1994), lowered repurchase intentions (Nadiri and Hussain, 2005), and increased switching intentions (Keaveney, 1995). Also, the formation of expectations and thus the feelings of satisfaction for a new customer are, to some extent, determined by WoM referral of current customers (Blodgett, 1993). Therefore, negative WoM referral also increases perceived risk of new customers (Michel, 2001).

Substantial empirical examinations have been undertaken in regard to negative WoM referral, both in service failure situations as well as in satisfactory service experiences (Alexander, 2002). However, strategies for improving the consumer’s negative WoM referral after a failed service encounter have received little attention from researchers.

³ Barnes et al. (2004) explained: a) the almost customer as the one who was ready to purchase but later decided not to only because of negative WoM; and b) lost earnings as the profit that could be made from these almost customers.

Although not extensively researched, the desirability of improving, that is, reducing negative WoM referral after a service failure experience has been acknowledged in all studies involving service failure (e.g., Johnson, Zinkhan and Ayala, 1998; Ranaweera and Prabhu, 2003; and Zemke and Bell, 1990). Similarly, Grace and O’Cass (2001) suggest that service providers should increase positive WoM and decrease negative WoM referral for improved profitability. Therefore, this thesis includes WoM referral as one of the post-recovery consumer outcomes to be investigated.

2.7.2 Enhanced loyalty

The literature reveals that loyal customers are beneficial to the organisation for many reasons. Firstly, loyal customers act as advocates of the firm (Karatepe and Ekiz, 2004). Secondly, they are more likely to repurchase compared to those who are less loyal (Patterson and Anuwichanont, 2003). Thirdly, service switching is least likely amongst the loyal customers (Mattila, 2004). However, one of the most important issues in developing customer loyalty is related to the length and frequency of service purchases (Eisingerich and Bell, 2007). Boshoff (1997) indicates that, although all firms desire customer loyalty, it simply cannot be developed quickly; rather it will be achieved over time. Thus, developing loyal customers may not be easy but it provides tangible rewards. For example, loyal customers develop an ongoing relationship with the organisation and reduce the cost of attracting new customers (Levesque and McDougall, 2002). Similarly, loyal customers are also more likely to act in favour of the service organisation (Lovelock et al., 2004).

The importance of customer loyalty over an extended period of time has been widely acknowledged within the services marketing literature (e.g., Hirschman, 1970; Hart et al., 1990; Levesque and McDougall, 1993). Later studies took up the suggestions of earlier researchers who indicated the need for research in loyalty related issues. For example, Mittal and Lassar’s (1998) investigations of customer loyalty concluded that loyal customers are more frequent repurchasers compared to those who exhibit lesser or no levels of loyalty. Similarly, Tax et al. (1998) found that higher intentions to complain to a third party (other than the actual service provider) are associated with a lower level of customer loyalty.

More recently, the literature tends to examine how consumer loyalty varies with regard to the service performance (e.g., Karatepe and Ekiz, 2004). It appears that loyalty is likely to be higher when the service performance meets customer expectations (e.g., Priluck, 2003). However, when Mattila (2004, p.134) investigated the impact of service failure (i.e., when customer expectations are not met) on consumer outcomes, her findings suggested that, “affective commitment [i.e., desire to continue relationship] might reduce the adverse effects of service failures to future loyalty behaviours”.

Customer loyalty can retain a customer’s business with a service organisation despite the experience of dissatisfaction (Mittal, 1998). Since customer dissatisfaction is the outcome of failed service performance, firms should be vigilant about whether the failed service encounter also impacts negatively on loyalty. If the impact is negative, it is important to establish what activities (i.e., service recovery action) could help in maintaining customer loyalty after a service failure. The need to investigate these issues, although foreseen by past researchers (e.g., Bamford and Xystouri, 2005; Boshoff, 1997; Karatepe and Ekiz, 2004), has been overlooked in much of the literature, which does not seem to consider the factors that could assist in regaining customer loyalty once it is lost. Another widespread acknowledgement in the literature is that there is some degree of association between customer loyalty and other consumer responses that could appear after a service failure (Zhu et al., 2004). For example, customer complaint motive is one of the responses to a service failure and this could be related to loyalty. As Bamford and Xystouri (2005, p.309) argue, “Clearly there is a profit to be made by retaining the customer loyalty of those whose complaints the company resolves”.

In summary, the frequent examination of customer loyalty seems to indicate its important role in the service industry. However, the examination is limited to identifying the level of customer loyalty in service performance and changes in loyalty after a service failure experience. Thus, the literature has tended to ignore the possibility of regaining customer loyalty through an appropriate service recovery strategy after the customer has experienced a service failure. In other words, the literature has so far relied on findings that suggest loyalty should be maintained by delivering superior service.

This seems to contradict the majority of those findings that empirically found that service failure does occur and thus advocate that firms should be serious about developing recovery strategies rather than expecting service performance without failure. Obviously, these two views are in tension. In this regard, Hoffman et al. (2003, p.323) observe that, “the recovery strategies utilised by firms to regain customer loyalty are yet to be examined”. Therefore, the development of a firm’s recovery plan, that addresses the need to regain a customer’s loyalty after a service failure, is essential.

2.7.3 Complaint motive

Complaint motive is another consumer outcome, which has been extensively researched (e.g., Heung and Lam, 2003; Hocutt et al., 2006; Kim et al., 2003; Lee and Hu, 2004). According to Bailey (1994), a complaint is the result of unfulfilled customer expectations. “Consumer complaint behaviour is a process”, observe Ndubisi and Ling (2005, p.66), “that constitutes a subset of all possible responses to perceived dissatisfaction around a purchase episode, during consumption or during possession of the goods or services”. Complaint behaviour is, “an action taken by an individual that involves communicating something negative regarding a product or service” (Heung and Lam, 2003, p.283). Similarly, a study conducted in an airline service setting suggested that a consumer complaint is an indication of low-level performance of a service (Bamford and Xystouri, 2005). Consistent with this, Ndubisi and Ling (2005, p.67) have found that, “complaint is actually the response following the consumer dissatisfaction”. Hence, customer complaints are key indications of service failure.

Research has shown that the main concern of a complaining customer is to seek resolution of a problem (Michel, 2001). Seeking redress is a second reason why customers decide to complain (Wirtz and Mattila, 2004). Another reason for customers’ complaints relates to their willingness to engage in future purchases provided the complaints are handled properly (Kanousi, 2005). However, the consumer may decide not to complain if the likelihood of resolution of the problem or other desired outcomes is perceived as poor. For example, if customers think that no one will listen to their complaint, they would prefer to passively switch service provider rather than raise their voice (i.e., complaining) (Liu, 2006). Customers are more likely to remain loyal and repurchase if the firm handles their complaints properly (Snellman and Vihtkari, 2003)

in that, “they are likely to choose to stay after the complaint is resolved” (Ndubisi and Ling, 2005, p.69).

Therefore, successful service organisations consider effective complaint handling as a customer retention strategy (Michel, 2001). Conversely, “mishandling customer complaints impacts not only the affected customers but also their friends and families via negative word-of-mouth communications” (Hoffman and Kelley, 2000, p.419). These findings reveal that activities should focus on solving rather than merely acknowledging the problem and simply listening to customer complaints.

The effectiveness of the process of handling customer complaints has proved to be vital in improving consumer outcomes. For example, proper complaint handling helps in maintaining customer satisfaction (Eccles and Durand, 1998), loyalty (Boshoff, 1997) and referral (Maxham and Netemeyer, 2003). This is because, “consumers who complain seek corrective actions so that they can remain satisfied” (Heung and Lam, 2003, p.285).

Despite the fact that complaint handling is vital, the literature indicates that the studies related to customer complaints are mainly focused on service delivery settings (e.g., Maxham and Netemeyer, 2003). Researchers note that the study of variations in intention to complain after a service recovery action remains unexplored (e.g., Schoefer and Ennew, 2005, Stauss, 2002; Ndubisi and Ling, 2005). Knowing that a complaint is the most useful and meaningful source of information about perceived service performance, it is essential to examine complaint motive as a post-recovery consumer outcome in service failure settings (Heung and Lam, 2003; Maxham and Netemeyer, 2003). This study will, therefore, look at the issues related to customer complaint after a service failure and the variation in complaint motives with different service recovery strategies.

2.7.4 Overall satisfaction

Customers have a specific set of expectations prior to the purchase of a service which they compare with actual performance (Swanson and Kelley, 2001b). When expectations are not met, this can lead to customer defection. Therefore, the implementation of retention strategies becomes indispensable for maintaining customer satisfaction (Hoffman et al., 2003; Snellman and Vihtkari, 2003). Empirical studies

indicate that satisfaction alone is not enough for adequate customer perceptions of the desired service. Instead, to achieve overall satisfaction, it is essential to regain previously lost customer loyalty (Barnes et al., 2004; Kanousi, 2005). Oliver and Swan (1989, p.27) define overall satisfaction as a, “summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience”. Overall satisfaction is necessary to regain customer loyalty that has been lost due to poor service performance (Dabholkar and Overby, 2005; Lee and Hu, 2004; Levesque and McDougall, 1993). Overall satisfaction is associated positively with customer retention (Grace and O’Cass, 2001) and is also found to result in higher levels of praise and recommendation for service (Tax et al., 1998).

Studies have found that satisfaction is also associated with other consumer behaviours. For example, Dagger and Sweeney (2006, p.4) have noted, “satisfaction results in significant gains for the organization, for example, increasing repeat purchase, customer loyalty, word of mouth, and the propensity to pay more, as well as reducing switching”. In recent years, studies have moved beyond the traditional approach of identifying customer satisfaction levels to attempting to examine customer satisfaction in service recovery situations. These studies found that service recovery can have a significant influence on the satisfaction of a customer who has experienced service failure (Kau and Loh, 2006; Spreng et al., 1995). In short, research reveals that there are strong linkages between service recovery actions and customer satisfaction (e.g., Mattila, 2001).

However, at least one discrepancy exists in regard to the examination of customer satisfaction in the literature. This relates to the interchangeable use of the concepts of mere satisfaction and overall satisfaction, wherein some literature clearly suggests that mere satisfaction can represent overall satisfaction. Although the customers’ overall satisfaction is widely discussed within the literature, the concept of maintaining overall satisfaction is relatively new (Donovan et al., 2004). In relation to this, Mittal and Lassar (1998, p.177) observe, “Loyalty requires a commitment from the customer that mere satisfaction cannot bring”. Similarly, McCole (2004, p.351) differentiated the concept of satisfaction in the following terms: “where perceptions are equal to expectations, the result is confirmation or mere satisfaction; where perceptions are

greater than expectations, it is customers' delight [i.e., overall satisfaction]". Therefore, the findings based on any one aspect of satisfaction cannot be generalised.

2.7.5 Switching intent

In a literature review, Ndubisi and Ling (2005, p.68) concluded that switching intent can be defined as, "customers forsaking one product or service for another". According to Liu (2006), consumer switching is an active and destructive response to dissatisfaction, exhibited by a break of the relationship with the object (e.g., brand, product, retailer, and supplier). In another definition, customer exit (or switching) is similarly viewed as the customer's decision to stop purchasing a particular service or patronising the service firm, which results from a gradual dissolution of relationships due to a problem or problems encountered over time (Ranaweera and Prabhu, 2003). To take another example, in a study of customer defection in the banking industry, Duffy et al. (2006) defined defection (i.e., switching) as the ending of the relationship between customer and the service provider.

Consumer switching intent appears to be one of the main concerns of service providers. For example, Grace and O'Cass (2001, p.300) observed that, "owing to the negative effect of switching on bottom-line profitability, service organizations are becoming more and more concerned about those customers who chose to abandon ship and take their patronage elsewhere." Considerable efforts in service research have been undertaken to identify the reasons why a customer might switch service providers (e.g., Grace and O'Cass, 2001; Keaveney, 1995; McCole, 2004; and Poon and Low, 2005). Service failure appears to be the main reason for customer switching. For example, Keaveney (1995) found eight reasons why consumers switch, five of which are service performance related: inconvenience; core service failure; service encounter failure; response to service failure; and pricing issues (i.e., a firm's inability to compensate the consumer with a service recovery strategy). Similarly, Grace and O'Cass (2001, p.312) found in a childcare service setting that, "parents are more likely to switch if there is evidence of uncaring, impolite attitudes from staff". In this case, the attitudes of staff represent the service failure that makes consumers switching intent inevitable.

According to Patterson (2004, p.1304), firms can develop a strategy, "that acts as a disincentive or deterrent to customers changing service suppliers". This seems to imply

that service recovery actions are the potential deterrents or barriers to switching. In addition, achieving customer satisfaction seems profitable for the firm, as Dagger and Sweeney (2006, p.3) observe, “satisfaction results in significant gains for the organisation, for example, increasing repeat purchase, customer loyalty, word of mouth, and the propensity to pay more, as well as reducing switching”.

Although not specifically identifying the type of service failure, analysis conducted by Grace and O’Cass (2001, p.313) indicated that, “core service failure was the most significant switching factor, whereas supplementary service failure was the least significant”. Hence, it is also likely that consumer switching intentions could vary based on the type of failure. Despite this finding, researchers appear unable or unwilling to identify the recovery strategy, which could potentially reduce consumers switching intent after a customer’s service failure experience.

Overall, researchers seem to agree that switching service providers has damaging effects on the firm, beginning with reduction in market share and then affecting profitability (Lewis and Spyropoulos, 2001). Some studies have found that recovery actions can impact consumers’ switching intent (e.g., Boshoff, 1997; McCole, 2004; and Wirtz and Mattila, 2004). For example, Wirtz and Mattila (2004) found that recovery actions such as empowerment and compensation can reduce the likelihood of switching service providers. Boshoff and Leong (1998) identified speedy response as another recovery action, which could minimise consumer intentions to switch service provider. Similarly, McCole (2004) found that recovery activities can substantially change a consumer’s attitude about moving to a new service provider. Lower switching intent therefore constitutes an important measure of success of service recovery. The present study investigates the varying switching intent with service recovery actions following a service failure experience.

2.7.6 Expectation update

Customer expectation has also been extensively investigated in the literature. Consumer expectations are linked with pre-purchase assumptions about a service (e.g., Andreassen, 2000; Kanousi, 2005; Mattila and Wirtz, 2006) and are formed on the basis of a firm’s promises to its customers (Lovelock et al., 2004). Therefore, expectations are internal standards against which customers judge the quality of a

service. British Airways has developed the monitoring mechanisms for expectation updates, “which continually told them what the customers expect, and how well they were doing against these expectations” (Bamford and Xystouri, 2005, p.311).

Customer expectations in regard to first time service consumption are extensively researched (Hoffman et al., 2003; Zeithaml, Parasuraman and Berry, 1990). However, the literature suggests that customer expectations of the first time service experience are unlikely to be identical with those of the second time service experience (Tax et al., 1998). This means that customer expectations are continuously updated with each additional service experience (Parasuraman et al., 1991). Existing studies have given considerable attention to understanding consumer expectations in multiple service encounters (e.g., Gronroos, 1988; Bitner, 1990; Bebeko, 2000). They seem to agree on the idea that consumer expectations of service providers are lower in regard to future purchases when an unsatisfactory service experience has been encountered (Kanousi, 2005). However, conversely, customers are likely to hold higher expectations of future service if they find service performance meets their expectations.

This study focuses on the research findings related to customer expectations that are often linked with service experience (e.g., Armistead et al., 1995; Bebeko, 2000; Ojasalo, 2001). Much of the literature acknowledges that customers adjust their future expectations depending on how the service is performed (Lovelock et al., 2004). Some studies also indicate that consumer future expectations are associated with consumer future intentions such as WoM referral and repurchase intent (Ronald, Ganesan and Klein, 2003). If expectations do differ, organisations should consider either updating service standards in order to match the updated expectations, or they should have a recovery plan in order to restore the pre-purchase expectations of the customer. An investigation into how service organisations should update service standards is beyond the scope of this study. Instead, this study focuses on whether customers update their expectations of service standard in future, if service recovery activity is undertaken.

2.7.7 Repurchase intent

Maintaining customer intention to repurchase is another important concern of service providers. Repurchase is the benefit to service provider, which arises, “when a customer remains with a company instead of switching to a competitor” (Stauss and

Schoeler, 2004, p.147). Kivela, Inbakaran and Reece (1999, p.205) argue that, “repurchase is a consequence of satisfaction”, whereby it contributes to the consumer decision-making process to return to the original service provider. Similarly, Dagger and Sweeney (2006) suggest that satisfaction results in higher repurchase frequency. Repurchase is thought to improve profitability, principally by reducing costs incurred in acquiring new customers (Keaveney, 1995). In line with this, Matila (2001) suggests that repeat purchase by a customer from the same service provider is vital for success in today’s competitive business environment.

The literature suggests that repeat purchase from the same firm can be improved with the firm’s active participation (Bamford and Xystouri, 2005). Furthermore, the importance of a customer retention strategy is supported by Chebat, Davidow, and Codjovi (2005), who found that a firm has a 60% to 70% chance of successfully repeat-selling to an “active” customer. They also found that a 20% to 40% chance of successfully repeat-selling to a lost customer, and only a 5% to 20% chance of successfully closing the sale with a brand new customer.

Hence, it is unlikely that customers will repurchase a service if they experience an unpleasant service (Parasuraman et al., 1991). Researchers suggest that customer repurchase intentions are associated with the quality of service (Mattila, 2001), satisfaction (Bamford and Xystouri, 2005), exceeded customer expectations (Kanousi, 2005) and loyalty (Swanson and Kelley, 2001a). Service failure has been found to be one of the key reasons that consumers decide not to repurchase and to switch supplier (Keaveney, 1995). In addition, recent service recovery literature seems to acknowledge the importance of frequent purchase. For example, Maxham and Netemeyer (2002) noted that repurchase intent is an important post-recovery consumer outcome in the service setting. Similarly, Diaz and Ruiz (2002) suggest that customers react to a delayed response (i.e., slow speed of service recovery) with less frequent repurchase from the same service provider. As already noted (see Section 2.7.5), switching service providers has multiple damaging effects on the firm: market share is reduced; profitability is reduced; and negative WoM referral is increased (Lewis and Spyropoulos, 2001; Broderick et al., 2000). As such, a strategy that could improve repurchase intent seems essential.

Although repurchase intent following a service experience have been well researched, strategies to improve it (that is, repurchase intent) after a service failure experience are neglected in the literature (Ranaweera and Prabhu, 2003). In relation to this, Swanson and Kelley (2001b) suggest future researchers should investigate what specific service recovery strategies could lead to more favourable customer evaluations and future repurchase intent. In addition, some researchers have suggested that frequency of repurchases can be increased if effective service recovery activities are undertaken (e.g., Keaveney, 1995). This study will, therefore, examine how consumer repurchase intent could be improved with various service recovery activities.

2.8 Comparison of present study with existing research

Consistent with the earlier discussion on problem identification in Section 1.5 (page 8), Table 2-3 provides a summary of this thesis's focus and compares this with the focus of previous research.

Table 2-3: Comparison of previous research with this thesis

No	Actions	Previous research	This thesis
1	Typology of failure	Not distinguished	Incorporates failure types (process and outcome)
2	Organisational service recovery actions	Compensation	Both empowerment and compensation
		Magnitude of compensation	Types of compensation (refund or replace)
3	Employee service recovery actions	Individual effects	Both individual and combined effects
		Other service settings	Hotel setting (Accommodation)
4	Consumer outcomes	Examined individually (mainly satisfaction and loyalty)	Complete set of consumer outcomes as identified by Bhandari et al. (2007): Repurchase intent, Enhanced loyalty, Complaint motive, Overall satisfaction, Switching intent, Expectation update, and WoM referral.

Table 2-3: Comparison of previous research with this thesis (Continued)

5	Industry Examined (Consumer outcomes after recovery)	Airline, Banking, Education, Childcare, Medical, Dining	Hotel (Accommodation)
6	Majority of respondents	Virtual customers (e.g., University students)	Actual customers (hotel guests)

This table (Table 2-3) incorporates issues including typology of failure, service recovery actions, consumer intentions, industry examined, and respondents of studies that will be addressed in this thesis and compares how, if at all, they have been addressed in previous studies. This tabular summary thus explains how the present study will attempt to fill the identified gaps within the literature.

The first gap identified within the literature is with regards to the typology of service failure. As can be seen in Table 2-3, there has been a generalised approach in developing service recovery strategy, without considering the type of service failure, despite that two types of service failure do emerge from the literature suggesting service failures in two distinct situations: process failure; and outcome failure. Recent studies have appeared, while this research was being undertaken that suggest the type of service failure (process failure and outcome failure) should be considered by service providers for future planning (e.g., Zhu et al., 2004). These authors suggest that services are situational and, therefore, a firm's standard service delivery strategies will not necessarily be effective in both types of service failure. Hence, this study will be the first to investigate variation in post-failure consumer outcomes with service recovery activities in each type of service failure: process failure; and outcome failure.

Secondly, in previous studies, the effects of a provider's response to service failure were examined individually, such as restricting investigation to the effects of a single service recovery action (e.g., apology) on consumer intentions (e.g., repurchase intent). The possibility of combined effects of recovery actions, such as compensation together with an apology, has generally been ignored. In contrast, the present study incorporates multiple service recovery actions to investigate their impact as a single service recovery strategy on consumer outcomes.

Thirdly, existing studies have thus far examined differences in consumer outcomes according to the impact of either compensating the customer or not. However, this study will be the first to compare the effects of different types of compensation (refund versus replacement) in order to establish whether consumers prefer refund or replacement as a recovery strategy.

The fourthly, previous research has tended to examine individual consumer outcomes, such as satisfaction, while ignoring the impact of service recovery actions on other consumer outcomes, such as loyalty. Even in more recent studies (e.g., Schoefer and Ennew, 2005), only a few recovery outcomes, mainly consumer satisfaction and loyalty, are examined to determine the effectiveness of recovery actions, despite the suggestion of the award winning study that, “success of service recovery should improve a range of consumer outcomes” (Bhandari et al., 2007, p.176). This study argues that the success of service recovery strategy is determined by its effect on multiple consumer outcomes. For example, an unsatisfactory service experience can be made satisfactory by offering compensation, but will this necessarily guarantee that a customer will repurchase? Similarly, will the satisfaction achieved through compensation reduce the propensity of negative WoM? This study attempts to answer such questions by incorporating the effect of recovery actions on multiple consumer outcomes explored in Section 2.7.

Fifth important difference of the present study with previous research includes the industry examined. In contrast with existing studies, which were conducted in different settings such as the airline, banking and restaurant industries, the present study is conducted in a hotel (accommodation) setting. Therefore this study will also enrich the literature by providing analytical results from an industry which was not explored in the past.

Lastly, this study was conducted with actual consumers of hospitality services who were staying in a hotel. Inclusion of real world respondents rather than convenient surrogates (e.g., university students) is believed to contribute to research findings that are more generalisable (Malhotra, 2004).

2.9 Conclusion

This chapter has reviewed the existing literature in the area of service failure and recovery. This review incorporated customer expectations, service failures, post-failure consumer outcomes, service recovery actions, and their impact on post-failure (i.e., recovery) outcomes.

This literature review identifies a number of gaps in existing studies. Firstly, the need to differentiate service failure into relevant types was realised with the support of available studies that identify the existence of two types of failures, process failure and outcome failure. In addition, a number of activities were identified that can be implemented as service recovery actions in order to improve a range of consumer outcomes. Seven consumer outcomes, as reported in the literature, were found to be important to evaluating the success of service recovery. Since existing studies do not incorporate all of these consumer outcomes, the need for further research has been identified.

In sum, this chapter has reviewed service recovery actions (Section 2.6) and consumer outcomes (Section 2.7), as well as conducted a comparison of the present study with existing literature (Section 2.8). Based on the discussion of types of service failure outlined in this chapter, the next chapter focuses on conceptualising process failure recovery and outcome failure recovery, and develops a framework showing the relationship between types of failure, recovery actions, and consumer outcomes. Hypotheses are then presented that attempt to answer the research questions outlined in Chapter One (Section 1.7, page 13).

Chapter Three

CONCEPTUAL FRAMEWORK

3.1 Introduction

The review of the literature presented in Chapter Two explored the main issues of this study, that is, service failure, service recovery actions and consumer outcomes. This chapter, Chapter Three develops the conceptual framework, which will be explored in this thesis. It also includes the proposed hypotheses, which will be tested to achieve the aims of this research listed in Section 1.6.

More specifically, a conceptualisation of failure types and associated service recovery is provided in Section 3.2. Similarly, conceptualisation of service recovery actions is included in Section 3.3, and for consumer outcomes in Section 3.4. Relationships between these concepts are discussed in Section 3.5. Based on these sections, a conceptual framework of service recovery is developed in Section 3.6. A justification of the framework is given in Section 3.7. The background for the formulation of the hypotheses is given in Section 3.8. The hypotheses are proposed in Section 3.9 in relation to: a) direct effects of service recovery actions on consumer outcomes; b) interaction effects of service recovery action on consumer outcomes; and c) variation in consumer outcomes with recovery actions across two failure types. Section 3.10 summarises this chapter.

3.2 Conceptualisation of failure types and service recovery

Considerable evidence exists to suggest that service organisations can undertake activities to minimise the negative effect of service failures (e.g., Spreng et al., 1995; Smith et al., 1999). Minimising the effect of service failure can be achieved by implementing a service recovery strategy. Appropriate service recovery increases post-recovery satisfaction, future purchase intent and customer loyalty towards the firm (Levesque and McDougall, 2002). Service recovery can also significantly affect customer perception of the image of the service organisation (Zemke and Bell, 1990). A good service recovery system increases opportunities for cross-selling to retained customers, reduces the perceived risks, and enhances the image of the company for

both employees and customers (Carson et al., 1999). Maxham and Netemeyer (2002) also found the application of a recovery strategy to have a positive impact on customer satisfaction, WoM referral and repurchase intent. In sum, customers experiencing service failure are likely to have a positive attitude towards the service provider when recovery activities are undertaken.

As mentioned in Section 1.3, consumers can experience service failure in two situations: 1) when the service is being delivered and service performance is yet to be completed; and 2) when the service delivery process is completed (i.e., service consumption is over). The first type of failure is identified as process failure which relates to how the service is delivered. Firms need to act to deal with process failure, that is, while the need is being met (Swanson and Kelley, 2001a). Meuter et al. (2000) found that customers, who have an unsatisfactory service experience during the process of service delivery (process failure), would expect their problems to be resolved instantly. Boshoff (1997) indicated that customers' evaluation of satisfaction (or dissatisfaction) is often based on a process failure. The customer's satisfaction tends to be higher if the service provider attempts to resolve the process failure instantly (Tax et al., 1998). Process failure and the corresponding recovery often contribute to the consumer's decision with regard to the determination of future intentions (McCole, 2004). The following example of baggage handling service at an airport can illustrate process failure (Swanson and Kelley, 2001a, p.201):

While travelling on your usual airline, you arrive at your final destination. You wait at the baggage claim area, but your luggage does not appear with the other passengers' items. After checking at the customer service desk, you are told your luggage has been mistakenly put on a different flight and is expected to arrive at the airport tomorrow afternoon.

In relation to the second type of service failure, that is an outcome failure, it occurs if the final outcome at the completion of service performance is below expectation (McColl-Kennedy and Sparks, 2003). The outcome of service performance relates to what a customer had actually received (Gronroos, 1988; Parasuraman et al., 1991). The following example of service failure can illustrate an outcome failure (Mattila, 2004, p.156):

.....when the food finally arrived, you realized that the order was messed up. When you complained.....,the server went back to the kitchen and came back with the correct order. The food tasted good and was reasonably priced. At the end of the meal, you were given a 20 percent discount off your total bill.

One of the aims of this study is to investigate the variation in consumer outcomes with varying recovery actions in two types of failure (process failure and outcome failure). This study will therefore attempt to compare recovery strategies to improve consumer outcomes when a customer experiences a service failure. Within this thesis, activities undertaken to address a) process failure will be referred to as “process failure recovery”, b) outcome failure will be referred to as “outcome failure recovery” and consumer outcomes after undertaking a service recovery will be referred to as “post-recovery consumer outcomes”.

3.3 Conceptualisation of service recovery actions

Based on the literature review in Section 2.6 (page 29), service recovery activities are initiated either by service employees who are involved in service performance, or by the direction of management combined with managers’ discretion and organisational guidelines. The recovery action including managerial involvement and a firm’s policies are organisational recovery actions. Policies implemented at the organisational level could include compensation (Boshoff and Leong, 1998; Zemke and Bell, 1990; Worsfold et al., 2007) and empowering employees (Levesque and McDougall, 1993; Boshoff and Leong, 1998; Harley, 1995). Organisational policies can play a key role in regaining an unsatisfied customer. Research has indicated that a customer expects some kind of fulfilment from the organisation in most service failure situations (Mattila, 2001).

Despite the importance of organisational policies, employees alone can also play a vital role in satisfying the customers on behalf of the organisation. Activities undertaken by the staff members, which include speedy response to failure (Boshoff and Leong, 1998; Mattila, 2001), apology (Maxham and Netemeyer, 2003), explanation (Poon and Low, 2005) and empathy (Gronroos, 1988), are employee actions. The findings of Wirtz and Mattila (2004) suggested that employee actions for the unfavourable service performance (i.e., service failure) are mainly related to the response speed and the

apology. Within this thesis, employee responses to service failure (e.g., apology and response speed) are referred to as “employee actions”; and organisational policies (e.g., policy to compensate customers and empowering employees) are referred to as “organisational actions”.

3.4 Conceptualisation of recovery outcomes

Chapter Two identified that a range of consumer intentions is associated with service performance. For example, if the service performance is what customers have expected, their intentions towards service organisations are positive (e.g., positive WoM referral). Conversely, if the service performance is below the expected service, consumer intentions are less likely to be positive (e.g., negative WoM referral).

These consumer intentions associated with service consumption, service failure, and service recovery activities have been identified in the literature. These intentions are in favour of the service provider if the consumer’s perception of the service is positive. If the service is perceived to be poor, then consumer intentions will deteriorate and therefore they need to be improved in order to raise the customers’ perception of the service organisation. The consumer outcomes discussed in Section 2.7 which can be deteriorated by service failure are: repurchase intent; switching intent; WoM referral; future expectation; loyalty; complaint motive; and overall satisfaction. However, these outcomes can be improved with the aid of service recovery actions. This thesis will be examining the effect of service recovery actions on these consumer outcomes.

3.5 Relating failure types to recovery actions

One of the aims of this study (mentioned in Section 1.6), is the identification of whether there is any difference in consumer outcomes across the types of service failure. With regard to the typology of service failure, Parasuraman et al. (1991) were first to suggest that service failure might occur in two dimensions: process and outcome. Recent studies further expanded on the possibility of the existence of two dimensions of service failure by defining that: a) the process dimension exists in service encounters (Hui et. al., 2004; Zhu et al., 2004); and b) the outcome dimension exists when overall outcome of service performance is below expectations (Lovelock et al., 2004; Schoefer and Ennew, 2005).

Recent studies (e.g., Valenzuela et al., 2005; and Zhu et al., 2004) have supported the existence of two types of service failure. They have also suggested the possibility of a difference in consumer expectations across failure types. These suggestions warrant the need to investigate the possible variations in other consumer outcomes as well. For example, will WoM referral vary with failure types, or will customer satisfaction vary with process failure and outcome failure? This also indicates the need to replicate existing service recovery studies in both process and outcome failure settings.

With regard to the relationship between recovery actions and consumer outcomes, Section 2.3 reviewed the literature and concluded that there is the need to investigate the effects of service recovery actions for a range of consumer outcomes. There is evidence to support that recovery actions improve a variety of consumer future intentions. For example, consumer satisfaction can be improved with compensation (Levesque and McDougall, 2002; Sparks and McColl-Kennedy, 2001; Wirtz and Mattila, 2004), apology (Boshoff and Leong, 1998; Mattila, 2001) speedy response (Brown et al., 1996; McColl-Kennedy and Sparks, 2003) and empowerment (Broderick et al., 2000; Kerry et al., 1993). Meaning, these consumer outcomes possibly deteriorate in absence of recovery actions.

Consumer outcomes investigated in the past studies are repurchase intent (Levesque and McDougall, 2002; Magnini and Ford, 2004; Priluck, 2003), complaint motive (Davidow, 2003; Forbes et al., 2005; Leal and Pereira, 2003; Schoefer and Ennew, 2005; Snellman and Vihtkari, 2003; Yavas et al., 2004), customer satisfaction (Andreassen, 2001; Schoefer and Ennew, 2005; Yavas et al., 2004), switching intent (Ahmed, 2002; Colgate and Lang, 2001), future expectation (Brown et al., 1996; Ronald et al., 2003; Yen et al., 2004) and WoM referral (Maxham and Netemeyer, 2003; Swanson and Kelley, 2001b; Wirtz and Mattila, 2004). These studies and corresponding findings were, however, limited to the study settings of: a) post-purchase consumer outcomes (i.e., outcomes in absence of recovery strategy); and b) post-recovery consumer outcomes where failure types were not differentiated into process failure and outcome failure. Additionally, these studies mainly incorporated individual consumer outcome and not the multiple consumer outcomes (Priluck, 2003).

Meaning, past studies did not define and differentiate the types of failure while investigating the impact of recovery actions on consumer outcomes (Magnini and Ford,

2004; Shapiro and Nieman-Gonder, 2006; Yen et al., 2004). Researchers, thus far, seem to generalise the effect of recovery action on consumer outcomes irrespective of the failure type (Mattila, 2004; Poon and Low, 2005; Priluck, 2003). This could be the reason why the findings of many studies contradict each other (see Table 2-1, page 36). In other words, identification of a failure type, whether it is process failure or outcome failure, potentially appears essential to identify the effect of service recovery actions on consumer outcomes. This thesis attempts to deal with these issues by incorporating both process failure and outcome failure.

3.6 Representation of the study framework

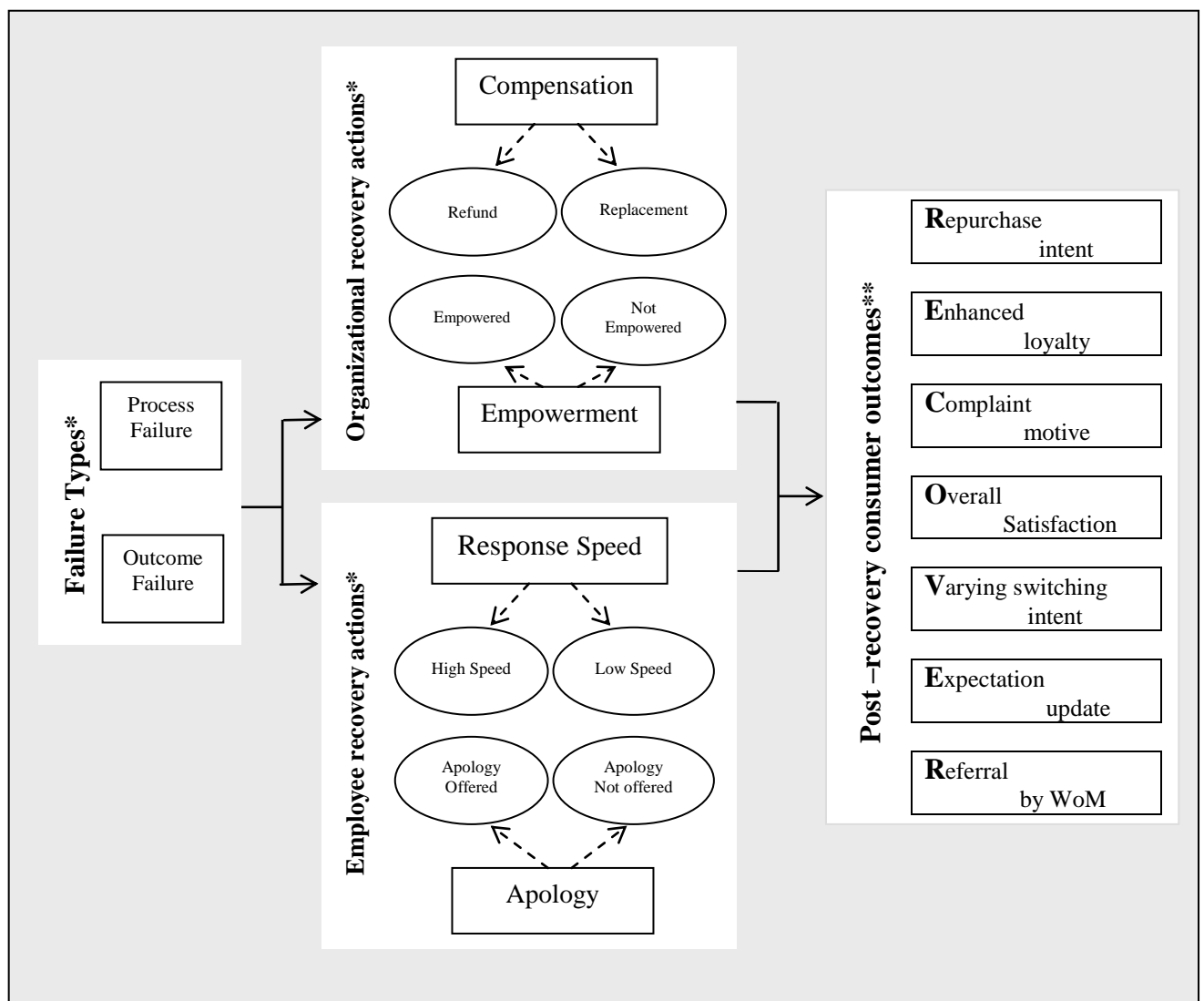
The framework of this study has been conceptualised (Figure 3-1) based on the literature presented in Chapter Two. First, the framework shown in Figure 3-1 encompasses both types of service failures. As indicated in Section 2.5, service performance has two dimensions: process and outcome. This is also supported by Ruyter and Wetzels (2000, p.92) who propose that, “an emerging theme, therefore, seems to be the optimisation of the service recovery strategy on the basis of the type of failure”.

Nguyen and McColl-Kennedy (2003, p.47) attempted to define types of service failure based on the process and outcome dimensions of the service encounter. A negative service experience in the process dimension of a service is a process failure and the one in the outcome dimension is an outcome failure. Recently, while this research was being conducted, Zhu et al. (2004) suggested that service recovery strategy can be both process failure recovery and outcome failure recovery depending on the type of failure.

Second, existing studies have also suggested that service recovery strategy needs to include service recovery actions (e.g., Forbes et al., 2005; Magnini and Ford, 2004; Ronald et al., 2003; Wirtz and Mattila, 2004). Some researchers have suggested that both compensation and empowerment are essential for an effective service recovery (e.g., Bitner, 1990; Brown et al., 1996; Poon and Low, 2005; Forbes et al., 2005). Whereas other researchers have suggested that an apology and a quick response is important as service recovery actions (e.g., McDougall and Levesque, 1999; Sarel and Marmorstein, 1999; Yavas et al., 2004).

Together the literature on service recovery actions appears to focus on two streams: a) organisational actions, which include compensation and empowerment; and b) employee actions, which include apology and response speed. However it appears that past studies did not incorporate both streams of recovery action in one research setting. Thus the need to examine the effects of both types of recovery actions (organisational actions and employee actions) on consumer outcomes appears essential. The framework of the present study encompasses both types of recovery actions, that is, organisational actions as well as employee actions (Figure 3-1).

Figure 3-1: Study framework with levels and magnitudes of variables



Note: The bold lines with arrows represent the relationships and dotted lines with arrow indicate the varying levels of service recovery actions (Source: Bhandari et al. 2007).

**Titles representing independent variables. **Title representing dependent variables (RECOVER)*

Third, the literature review in Chapter Two also identified that there is a range of consumer outcomes, which could be used to measure the success of a service recovery activity. There are ample studies, which have investigated the impact of a service recovery action on consumer outcomes (e.g., Mittal and Lassar, 1998; Nguyen and McColl-Kennedy, 2003; Smith et al., 1999; Tax et al., 1998). However the results of these studies do not recommend any specific service recovery strategy. According to Bagozzi, Gopinath and Nyer (1999) and Yen et al. (2004), service recovery outcomes are contextual, situation specific and vary with individual behavioural factors. This seems to suggest that a specific service recovery strategy may not be generalisable in all service performance contexts. Bhandari and Polonsky (2004) put forward a seven-element concept, which they named as RECOVER⁴, and suggested that organisations should be able to improve all seven consumer outcomes in order to rate a service recovery strategy as successful. Consistent with this, the framework of the present study (Figure 3-1, page 59) provides one platform from which to investigate the complete range of consumer outcomes that were identified in Section 2.7.

Within the framework of the present study, the employee service recovery actions to be examined are response speed and apology. Response speed has two levels (high versus low) represented by dotted lines in the figure. This variation in response speed is consistent with earlier research (e.g., Bamford and Xystouri, 2005). Similarly, apology is also varied at two levels (apology offered versus apology not offered) similar to the way it was varied in the study of Wirtz and Mattila (2004).

Two types of organisational actions, empowerment and compensation, are also varied within this study. Compensation is varied with its types, refund and replacement, based on the suggestions of Boshoff (1997). Empowerment is varied with its levels, empowered, and not empowered, in a similar way as it was varied in the studies of Bamford and Xystouri (2005), and Poon and Low (2005).

3.7 Justification of the framework

The framework examined in this study has three sections. The first section includes the two types of service failure: process; and outcome. This typology of service failure is

⁴ Abbreviation used to represent seven consumer outcomes: Repurchase intent, Expectation updates, Complaint motive, Varying switching intent, Enhanced loyalty and WoM referral.

based on the recommendations of Parasuraman et al. (1991) and Zhu et al. (2004). Section 3.5 explained how various researchers explored the existence of the two types of failure that are incorporated within the framework of this study. The second section of the framework examines both organisational and employee service recovery actions. In section 3.6, empowerment and compensation were identified as organisational actions, and response speed and apology were identified as employee actions. The framework also includes the varying level of service recovery actions, which were identified in Chapter Two. Thus, the framework shows two levels for each service recovery action. More specifically, speed varies as “low speed and high speed”, ‘apology varies as’ no apology and apology’, compensation varies as ‘refund and replacement’, and empowerment varies as ‘not empowered and empowered’.

The third section of the framework encompasses seven consumer outcomes that can be improved, as identified in the literature, by means of service recovery activities (from here onwards, these seven consumer outcomes will be referred as ‘consumer outcomes’). These are, repurchase intent, expectation update, complaint motive, overall satisfaction, switching intent, enhanced loyalty, and WoM referral.

In the past, individual consumer outcomes were examined while ignoring other outcomes, which could also possibly vary with service recovery activities. The literature has suggested that a successful service recovery should be able to improve a range of consumer outcomes (Zhu et al., 2004). For example, if a customer recommends the firm to others but is reluctant to repurchase, a service recovery attempt cannot be considered completely successful. Similarly, an unsatisfied customer could be happy with the recovery action but their loyalty may not remain as high as it was before the failure. The framework examined in this thesis includes seven consumer outcomes, which could vary with service recovery actions. Based on the framework presented in this section, the following section proposes the hypotheses which are to be tested in order to find the answer of the research questions of this study.

3.8 Background to develop hypotheses

This section discusses the background to develop hypotheses in order to identify the relationships amongst variables. Within this study, service recovery actions will serve as independent variables. The effect of these variables on consumer outcomes will be

identified, and therefore, consumer outcomes will serve as the dependent variables within this study. The hypotheses developed for this study will be based on the literature reviewed in Chapter Two and the framework examined in Section 3.6.

Four main hypotheses (H1 through to H4) are formulated based on effect type of service recovery actions (as depicted in the framework) on consumer outcomes and failure types. These effect types are: a) direct effect of service recovery actions on consumer outcomes; b) interaction effects of service recovery actions on consumer outcomes; c) direct effect of service recovery actions on consumer outcomes in each failure type; and d) interaction effects of service recovery actions on consumer outcomes in each failure type. These four main hypotheses are further divided into various sub-hypotheses. An outline to develop hypotheses is given in Table 3-1.

Table 3-1: Hypothesised relationships between service recovery actions

Effect Variable (Recovery Action)	Effect Type	Overall Failure	Failure Type (Process and Outcome)
speed apology empower compensation	Direct effect	H1.1→H1.4	H3.1 → H3.4
Effect Variable (Recovery Action)	Effect Type	Overall Failure	Failure Type (Process and Outcome)
speed * empower speed * apology empower * apology speed * compensation empower * compensation apology * compensation	Two-way interaction effect (2X2)	H2.1→H2.4	H4.1
speed * empower * apology speed * empower * compensate speed * apology * compensate empower * apology *compensate	Three-way interaction effect (2X2X2)	H2.5	H4.2

Key: H refers to a Hypothesis.

*Represents the combined effect of variable on its either side.

Table 3-1 has mainly four sections. The first section includes both individual independent variables as well as the combination of variables. The second section of the table shows the effect type intended to be measured which comprises: i) direct effects; ii) two-way effects; and iii) three-way effects of independent variables. The

third section provides an outline of the hypotheses that will focus on overall service failure, while the last section outlines the hypotheses which will focus on the type of failure (process failure and outcome failure).

Hypothesised relationships among the variables (shown in Table 3-1) are supported by existing studies. Table 3-2 includes a summary of existing studies, which investigated the impact of recovery actions on consumer outcomes. As can be seen, there are ample studies that have investigated the direct effects of service recovery actions (i.e., speed, apology, empowerment and compensation) as well as the combined effects of these service recovery actions.

Table 3-2: Empirical support for the formulation of hypotheses

Effect Type	H#	Effect variable*	Empirical support
Direct effects (employee action)	H1.1	Speed	Andreassen (2001), Bolton (1998), Boshoff (1997), Broderick et al. (2000), Devlin (1998), Mattila (2001), Wirtz and Mattila (2004).
	H1.2	Apology	Boshoff and Leong (1998), Mattila (2001), McDougall and Levesque (1999), Sarel and Marmorstein (1999), Wirtz and Mattila (2004).
Direct effects (organisational action)	H1.3	Empowerment	Bowen and Lawler (1992), Brown et al. (1996), Melhem and Irbid (2004), Sutton et al. (2003), Tschohl (1998), Wat and Shaffer (2005).
	H1.4	Compensation	Levesque and McDougall (2002), Bitner (1990), Mattila (2001), McDougall and Levesque (1999), Wirtz and Mattila (2004).
Two way interaction effect	H2.1 to H2.4	Combined effect of any two (compensation, empowerment, speed, apology)	Mattila (2001), McDougall and Levesque (1999), Wirtz and Mattila (2004), Maxham and Netemeyer (2002).
Three-way Interaction effect	H2.5	Combined effect of any three (compensation, empowerment, speed, apology)	Mattila (2001), Boshoff and Leong (1998), Bitner (1990), McDougall and Levesque (1999), Ranaweera and Prabhu (2003).

Table 3-2: Empirical support for the formulation of hypotheses (Continued)

Effect Type	H#	Effect variable*	Empirical support
Direct effect across failure type (process and outcome)	H3	Compensation, Empowerment, Speed, Apology	Not investigated in the past
Interaction effect across failure type (process and outcome)	H4	Combination of more than one (compensation, empowerment, speed, apology)	Not investigated in the past

[#]H Refers to hypotheses.

*Represents the independent variable of study which could impact on seven consumer outcomes: a) repurchase intent; b) enhanced loyalty; c) complaint motive; d) overall satisfaction; e) switching intent; f) expectation update and; g) WoM referral.

The first two sets of hypotheses of this study (H1 and H2) are based on existing studies that investigated the effects of recovery action on consumer outcomes in overall failure situation (i.e., without considering type of failures). The remaining two sets of hypotheses (H3 and H4) also represent the relationships but differ in that they incorporate the examination across failure types.

Table 3-2 provides support to the background of the hypotheses formulation. The table has four main sections. The first section includes both individual independent variables as well as the combination of variables. The second section of the table shows the number of hypotheses and sub-hypotheses. The third section lists the effect variables, while the last section lists the existing studies incorporating service recovery action for each effect type. Hypotheses H3 and H4 included in Table 3-2 (referred to as “Not investigated in the past” in the table) have not been investigated in the past and so this study is the first to examine the variation in consumer outcomes across types of failure.

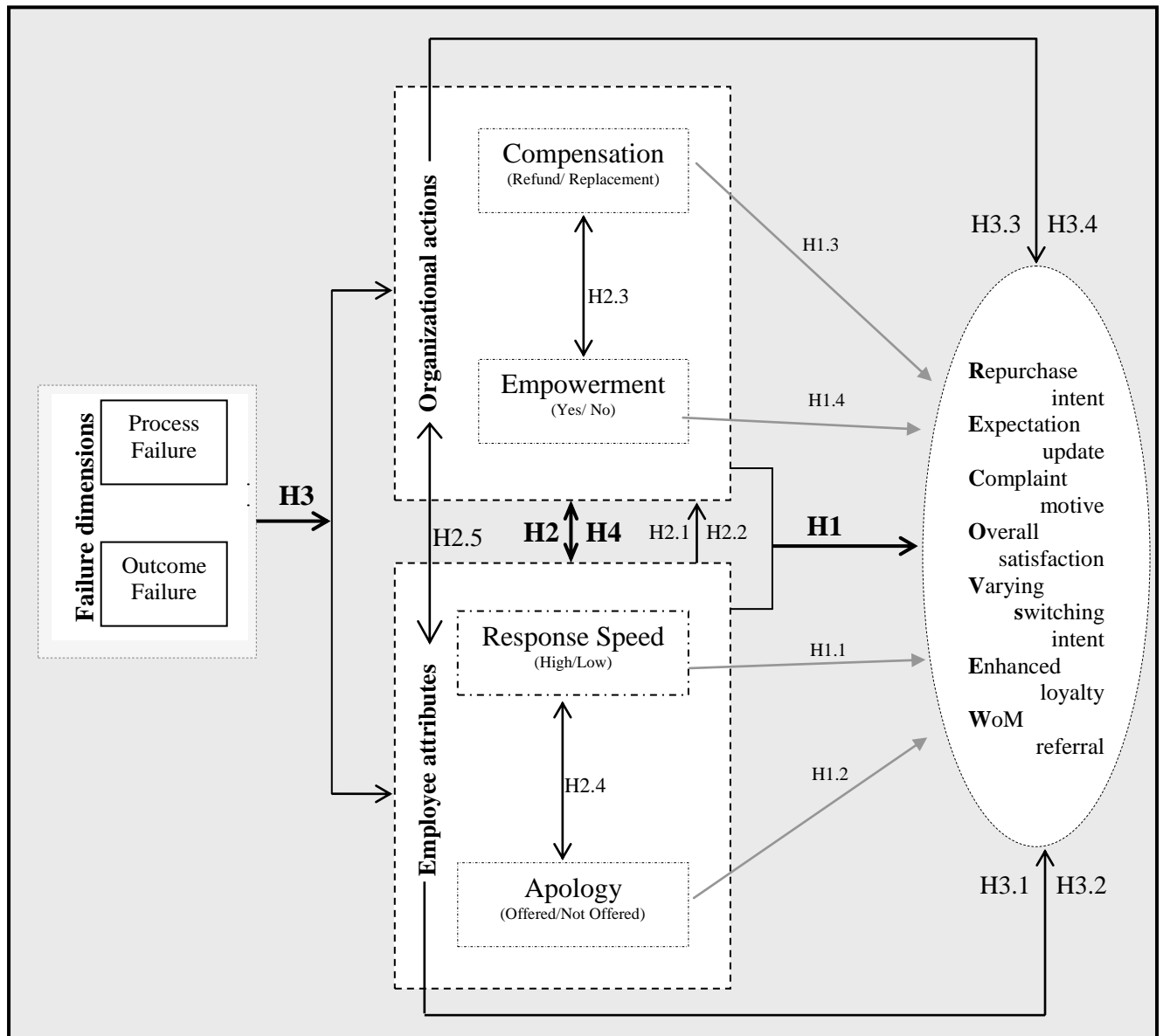
3.9 Hypothesised relationships of variables

Figure 3-2 represents the hypothesised relationships among variables. In order to achieve the aims of this research, as stated in Section 1.6, four main hypotheses are proposed in this section.

The first hypothesis, H1, relates the direct effects of service recovery actions on consumer outcomes in overall service failure situations. The hypothesis H1 has four subsections, H1.1 through to H1.4, incorporating the direct effects of four service recovery actions, speed, apology, compensation and empowerment. Hypothesis H2 is related to the combined effect of service recovery actions and has sub-hypotheses H2.1 through to H2.5.

The second sets of hypotheses (H3 and H4) represent the hypotheses related to the types of service failure. Specifically, H3.1 through to H3.4 represents the direct effects of recovery actions while H4.1 and H4.2 represent the combined effects of recovery actions on consumer outcomes.

Figure 3-2: Hypothesised relationship among variables



3.9.1 Direct effect of employee actions

Researchers seem to agree that an effective service recovery after a service failure can improve customer outcomes (Hart et al., 1990; Kelley, Hoffman and Davis, 1993). As stated in Section 3.4, one category of service recovery actions is related to employee responses to the service failure. These actions include response speed and apology (Wirtz and Mattila, 2004). Response speed is found to be associated with a positive perception of service delivery. In fact, speed of service recovery is one of the major determinants of effective complaint handling (Blodgett et al., 1993; Tax et al., 1998). It means that a slow response to service failure will increase customer switching and complaint motive (Smith et al., 1999). Similarly, customer expectations are formed prior to the purchase, and customers compare their expectations with actual service after experiencing it (Lovelock et al., 2004). However, their expectations will not remain exactly the same in post-purchase situations if their perceptions of service performance are different from what they expected (Zeithaml and Bitner, 2000). Thus, it can be proposed that customer future intentions will be improved with quick response after a failed service encounter.

Similarly, speedy response to customer complaints enhances customer loyalty to the firm (Boshoff, 1997). Loyalty builds-up over time and can be maintained or enhanced with a quick response to service failure (Wirtz and Mattila, 2004; Zhu et al., 2004). The rapid and effective handling of a problem is vital in “maintaining customer satisfaction and loyalty” (Bamford and Xystouri, 2005, p.307).

Likewise, customer intentions to recommend the service to friends and family also improve with a speedy response during the service encounter (Barnes et al., 2004). In relation to this, Zeithaml and Bitner (2000) suggest that the loyal group is that customer segment which spends more with the firm over time, costs less to maintain the relationship, and spreads positive WoM referral. However, improvement in any single consumer outcome may not guarantee the complete success of service recovery strategy. Therefore, it can be argued that a recovery attempt will only be successful if a range of consumer outcomes are improved in favour of the service provider. Thus, it is hypothesised that:

H1.1 High response speed of service recovery in service failure situations will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

Apology is another frequently examined employee service recovery action (Duffy et al., 2006). Apology is an acknowledgement of wrong doing which reduces customer anxiety, conveys to the customer that attention is being given to the problem, and defuses customer anger (Boshoff and Leong, 1998; McColl-Kennedy and Sparks, 2003). These findings are consistent with the study of Mattila (2001, p.590) that it (apology) had a, “strong positive impact on consumer future intentions”. Boshoff and Leong (1998) also suggested that apologising for the inconvenience is a first step towards re-establishing the equilibrium in a customer relationship.

Wirtz and Mattila (2004) concluded that an apology is likely to satisfy the customer and, at the same time, be cost effective. Customer delight can be gained from an apology, and an apology can enhance a customer’s positive attitude for repurchase and WoM referral. Therefore, it is hypothesised that:

H1.2 Apology as a service recovery action in service failure situations will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

3.9.2 Direct effect of organisational actions

Another category of service recovery action is related to the organisation’s policies and procedures. Within the literature, compensation and empowerment are considered to be the most effective organisational service recovery actions in improving consumer outcomes (Boshoff and Leong, 1998). Compensation involves using a set of rules about how to offer extra benefit to the customer in the event when something goes wrong. According to Keaveney (1995), organisations should offer some form of compensation to complaining customers. The most commonly used method in compensating an unsatisfied customer is a refund (Sparks and McColl-Kennedy, 2001). Although Boshoff (1997) empirically concluded that compensation as a service recovery action has positive effects on consumer perception of a service recovery effort, the issue of

what kind of compensation (i.e., refund or replacement) is preferred by customers in specific situations remains unaddressed (Eccles and Durand, 1998).

There are some studies, which have indicated that compensating customers by offering an alternative service (replacement) could also have a significant effect on the intentions of customers (Duffy et al., 2006). But there appears no empirical evidence in regard to how the consumer outcomes vary based on whether a refund or replacement is offered to compensate customers. Therefore the following hypothesis is proposed:

H1.3 In a service failure situation, improvement in consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will differ with the type of compensation (refund versus replacement) offered.

Further, empowering an employee is also an organisational service recovery action, which can improve consumer outcomes. Melhem and Irbid (2004) emphasised the need for empowerment arguing that an empowered employee will be able to provide a decisive response. Similarly, Sutton et al. (2003) found that empowered employees are more effective in meeting and exceeding customer expectations. The appropriate resolution of perceived problems (which can be achieved through empowering employees) would ideally stop the customer from moving to another service organisation (Maxham and Netemeyer, 2002).

If consumers perceive that a service provider is keen to solve their problems, they are more likely to maintain their relationship with the organisation (Wirtz and Mattila, 2004). A similar argument can be developed, in the context of service recovery actions, that customers experiencing a service failure will be likely to maintain a relationship with the organisation if appropriate service recovery activities are undertaken.

In a literature review, Schoefer and Ennew (2005) concluded that WoM referral is an inevitable consumer response following a service encounter. This form of communication is negative if the service experience does not meet expectations. Service providers therefore should meet or exceed pre-purchase consumer expectations in order to generate positive WoM referral (Lovelock et al., 2004). Consumer expectations are more likely to be exceeded if the employees are empowered, because

an employee can make an appropriate decision to deal with service failure rather than seeking, and waiting for, managerial approval (Forbes et al., 2005). Waiting for service, not only initiates the customer's decision to stop purchasing from the existing service provider (Diaz and Ruiz, 2002), but also lets them think about switching to an alternative service provider (Keaveney, 1995). In relation to this, McDougal and Levesque (1999, p.14) stated, "Service firms should understand that, even with a pre-process, post-schedule wait, situational aspects matter". Further, when personal consequences were serious (e.g., a spoiled family celebration), intentions were more negative. The staff that interacts with these customers should identify the specifics of the context and provide customized strategies to mitigate the negative intentions.

It appears that the response to a service failure by an empowered employee not only generates positive WoM and increases repurchase intent but also maintains consumer loyalty. Employee self-directed action could help to manage aggrieved and unhappy customers (Karatepe and Ekiz, 2004) and frontline employees can therefore enhance satisfaction and loyalty. Therefore, the following hypothesis is put forward:

H1.4 Recovery activities undertaken by an empowered employee in a service failure will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

3.9.3 Two-way interaction effects of recovery actions

Although past research mostly expanded on the direct effect of recovery actions, some studies seem to have focused on interaction effects of multiple recovery actions in order to evaluate consumer outcomes following service recovery activities. For example, Boshoff (1997, p.126) found that, "compensation offered together with speedy actions can go a long way towards limiting its harmful impact in regard to consumer future intentions". In a similar vain, Wirtz and Mattila (2004) suggested that a less generous compensation (only 20 % discount) might produce a higher level of WoM referral and loyalty if offered with high speed. In line with this, Boshoff (1997) added that if the service recovery process takes more time than anticipated by the customer (i.e., low response speed), some other activity is required to mitigate the negative effect of delayed response to service failure. Rafiq and Ahmed (1998) also mentioned that

speedy action along with compensation is more effective in satisfying the customer rather than the use of compensation alone.

Empowerment combined with quick response has also been found to be significant in improving a firm's image. For instance, satisfying a customer by offering a solution is best done by speedy and effective remedies (McCole, 2004). Diaz and Ruiz (2002) indicated that both the propensity to complain, and repurchase intent are significantly affected when remedial actions are taken quickly. Further, consumer switching intent is associated with delay and improper handling of complaints (Keaveney, 1995).

Zemke and Bell (1990) suggested that consumer future intentions toward the service organisation could be affected if both apology and speed are combined. Wirtz and Mattila (2004) empirically found that, when an apologising employee gives a discount, customer satisfaction and WoM referral of a previously dissatisfied customer can be improved. In a similar vein, Schoefer and Ennew (2005) found that an apology helps in re-establishing a relationship with the customer and prevents service switching.

However, these empirical findings relate to the individual consumer outcomes (updated consumer intentions following service failure). As has been proposed earlier, the success of service recovery activity cannot be determined by improvement in individual consumer outcomes⁵. In order to determine the effectiveness of a service recovery strategy, it is essential to examine the full range of consumer outcomes including repurchase intent, enhanced loyalty, complaint motive, overall satisfaction, switching intent, expectation update and WoM referral. Thus, the following hypotheses (H2.1, H2.2, H2.3 and H2.4) are proposed:

H2.1a The response speed (low versus high) in a service failure situation will show a two-way interaction effect with **compensation** on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

H2.1b The response speed (low versus high) in a service failure situation will show a two-way interaction effect with **empowerment** on: a) repurchase intent; b)

⁵“Although satisfaction-building activities are fundamental to repurchase decisions, recent empirical studies suggest that satisfaction often has a modest effect on retention. Satisfaction does not convert current customers into long-term loyal customers, nor does it typically prevent customers from switching to alternatives. “(Annie H. Liu, 2006, p.30).

expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

H2.2a Apology (no apology versus apology) offered for the inconvenience caused by a service failure will show a two-way interaction effect with **compensation** on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

H2.2b Apology (no apology versus apology) offered for the inconvenience caused by a service failure will show two-way interaction effect with **empowerment** on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

H2.3 There will be a two-way interaction effect of employee service recovery actions (**apology and speed**) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

H2.4 There will be a two-way interaction effect of organisational service recovery actions (**empowerment and compensation**) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

3.9.4 Three-way interaction effects of recovery actions

The examination of the impact of three independent variables on one dependent variable is not new in the social sciences. However, in the service recovery literature, the examination of interaction effects is relatively new. Boshoff (1997) was the first to examine combined effects of recovery action and other researchers have followed including Bagozzi et al. (1999), Mattila and Cranage (2005), Sarel and Marmorstein (1999), and Mattila (2004) who have also investigated the interaction effect of three variables on consumer outcomes.

In the study by Boshoff (1997), consumer intention to repurchase and WoM referral were significantly improved when response was combined other recovery actions. In

the study of Wirtz and Mattila (2004), three-way interaction of discount, speed and apology showed significant improvement in customer satisfaction while none of the two-way interactions (between apology, discount and speed) were significant for consumer outcomes.

Although existing studies focused on limited consumer outcomes, the research settings were similar to that in this thesis (e.g., inclusion of scenario and similar sample size). Thus, it seems reasonable to assume that three way interactions could significantly impact on a range of consumer outcomes (repurchase intent, enhanced loyalty, complaint motive, overall satisfaction, switching intent, expectation update, and WoM referral). Therefore, following two hypotheses are proposed:⁶

H2.5a Service recovery actions will show three-way interaction effects on: a) expectation update; b) complaint motive; and c) switching intent in an overall service failure situation.

H2.5b Service recovery actions will show three-way interaction effects on: a) repurchase intent; b) enhanced loyalty; c) overall satisfaction; and d) WoM referral in an overall service failure situation.

3.9.5 Effect of recovery actions within each type of service failure

Service failure, as defined first by Zemke and Bell (1990), is a situation when something goes wrong during delivery and consumption of a service. Thus, the literature seems to generalise that service failure is homogeneous and could be rectified with a standard set of service recovery strategies. However, due to continuous human involvement in the service consumption process, service failure has recently been accepted as situation specific (Michel, 2001). In other words, the failure may occur either during the process of service delivery or at the final phase of consumption when customers perceive that their overall expectations were not matched by the performance (Ahmad, 2002).

⁶ Unlike other hypotheses, these two hypotheses (H2.5a and H2.5b) were formulated instead of one hypothesis (e.g., H2.5) for two reasons: 1) The presentation of the results of statistical analysis of three-way interaction effects would lead to a very large table of data if all seven consumer are to be included in one table; and 2) the interpretation would be complex and therefore complicated for comparison of analytical results due to a large number of comparison cells. Therefore four (of the seven) consumer outcomes are included in H2.5b whereas three consumer outcomes are included in H2.5a.

Recently, Zhu et al. (2004) suggested that a separate recovery strategy should be implemented in process and outcome dimensions of service failure to improve consumer outcomes. They propose that several questions will remain unanswered unless separate recovery strategies for process and outcome failures are undertaken (i.e., process failure recovery and outcome failure recovery). For example,

.....can a process failure recovery effort, by itself, be sufficient to overcome a minor outcome failure? Can an outcome-recovery solution, by itself, compensate for a major process failure? What are the implications of such substitutions for the firm's profitability? (Zhu et al., 2004, p.494).

With regard to the consumer outcomes, inconsistencies appear within existing studies about which type of failure is more important over another. For example, Shapiro and Nieman-Gonder (2006) suggested that outcome failure (e.g., an unavailable service) is important. They argued that customers are likely to forget a negative incident that occurred during the process of service delivery (i.e., process failure) provided that the final outcome of the service experience is satisfactory (i.e., no outcome failure). In contrast, Parasuraman et al. (1991) and Ruyter and Wetzels (2000) suggested that the process dimension of service failure is more prominent. However, finding the answer to "which type of failure is more important" is beyond the scope of the present study. Rather, this study focuses on investigating whether any single (or set of) service recovery action(s) has differential effects on consumer outcomes across the two failure types (process and outcome). In this regard, Zhu et al. (2004) suspected that a recovery strategy, in order to deal with any one failure (e.g., outcome failure), may not compensate for the ill effect of another failure (e.g., process failure). Therefore, the following hypotheses are put forward:

- H3.1. The effects of **response speed** (low speed versus high speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.
- H3.2. The effects of **apology** (no apology versus apology) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall

satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

H3.3. The effects of **empowerment** (no empowerment versus empowerment) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

H3.4. The effects of types of **compensation** (refund versus replacement) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

Past studies have: a) empirically found that the combined effects of service recovery actions improved consumer outcomes better than the effects of a single service recovery action; and b) acknowledged the existence of type of service failure. For example, Boshoff (1997) and Wirtz and Mattila (2004) investigated the interaction effects of service recovery actions and found that they impact on consumer outcomes when implemented together as the service recovery strategy.

However, existing studies did not differentiate between the types of failure and thus far, recovery activities are undertaken as a standard approach, irrespective of the type of failure. Although not clearly defined, a closer look shows a very remote link in past research with type of service failure. For example, in the work of Berry and Parasuraman (1991) and arguments of Ruyter and Wetzels (2000), refund as compensation is favoured when the final outcome of service performance is below expectations (i.e., **outcome failure**). Similarly, Smith et al. (1999) and Tax et al. (1998) suggested that apologising could be a better service recovery strategy for dealing with service failure while the service is still being delivered (i.e., **process failure**).

Despite the indication of: a) the existence of types of service failure; and b) the need for associated recovery strategies, past research did not focus upon investigating the combined effects of service recovery actions on consumer outcomes across process failure and outcome failure. Those who examined the combined effects of service

recovery actions seem to assume that the results are generalisable for all failure types. Since there is no evidence relating to whether the variations in consumer outcomes remain identical in both failure types, further investigation is necessary on this issue. In connection with this, the following hypotheses are proposed:

H4.1 The **two-way** interaction effects of services recovery actions (compensations, empowerment, apology and response speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

H4.2 The **three-way** interaction effects of services recovery actions (compensation, empowerment, apology and response speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

3.10 Summary

This chapter has primarily focused on two topics, conceptual framework and hypotheses propositions. Thus, while Section 3.1 introduced the chapter, Section 3.2 conceptualised the types of service recovery, Section 3.3 conceptualised service recovery actions and Section 3.4 conceptualised recovery outcomes. Section 3.5 included the relationships of failure types with recovery action.

The second main topic covered in this chapter is the framework of this thesis which was presented in Section 3.6. The definitional framework proposed in Section 1.4 was used within this Chapter to develop the framework of this study. Justification of the proposed framework was discussed in Section 3.7. The background for the proposed hypotheses was provided in Section 3.8 and the hypotheses were then proposed in Section 3.9. Finally, a brief summary of the chapter is given in this section (Section 3.10).

The following chapter is related to the research method and research design of this thesis. This includes a description of the experimental study and demographic

considerations for the selection of respondents. It also describes the process of scenario development and questionnaire preparation for this study.

Chapter Four

METHODOLOGY

4.1 Introduction

The hypotheses in Chapter Three proposed the relationships amongst variables. Chapter Four discusses the methodology and research design used to test the proposed hypotheses. This study implemented a factorial design to investigate the effect of independent variables on dependent variables. A range of activities was undertaken in order to conduct this experiment. The steps taken to conduct the experiment included scenario development, instrument designing and conducting survey. These steps are explained in Section 4.1 through to Section 4.4. That is, after introducing the chapter in Section 4.1, Section 4.2 explores the research design, Section 4.3 overviews past scenario-based studies, and Section 4.4 illustrates the process of scenario and instrument design which includes stages of the design process, discussions on scenarios, refining the scenarios, opinions of managers, realism test, the questionnaire, demographic questions, managers' comments, the pre-test, and the survey questionnaire.

The description of sample frame is included in Section 4.5 and respondent access and ethical issues are discussed in Section 4.6. An outline of the data collection process is discussed in Section 4.7 and methodology of data analysis is explained in Section 4.8. These methods are employed to conduct data analysis in Chapter Five. Section 4.9 summarises this chapter.

4.2 Research Design

This study implements an experimental design, which includes 32 hypothetical scenarios describing an imaginary service failure incident in a hotel setting. An experimental study is, “a research investigation in which conditions are controlled so that an independent variable(s) can be manipulated to test a hypothesis about a dependent variable” (Zikmund, 2000, p.308). A controlled condition in research settings means that there are no effects of unseen factors (i.e., variables which are not known to the researcher). The use of controlled situations helps the researcher to evaluate the causal relationships among variables (Hair et al., 2005; Poon and Low,

2005). A causal relation is the relationship between variables when, “one variable causes the other to vary as it does” (Jaccard and Becker, 2002, p.138).

Experimental studies are extremely useful to identify whether the manipulation of independent variables causes a change in the dependent variables (Malhotra, 2004; Kirk, 1995). Manipulation of variables involves adjusting the experimental conditions as desired by the researcher. Experimental conditions help researchers to control extraneous variables. Extraneous variables are variables other than those variables, which are manipulated within the experimental settings. The service recovery literature appears to adopt research designs that include experimental studies based on hypothetical scenarios (discussed later in Section 4.3). The reason for adopting this design, as argued by researchers (e.g., Wirtz and Mattila, 2004; Swanson and Kelley, 2001; Schoefer and Ennew, 2005), is the null effect (i.e., no effect) of extraneous variables on dependent variables. It is possible to control the effect of other variables on dependent variables in hypothetical incidents (Schoefer and Ennew, 2005).

The research method employed in experimental studies generally include block designs, factorial designs, randomised designs, and between-subject designs. A brief explanation on these designs shall now be discussed.

A **block design** is one, which involves the dividing of subjects (participants of the study) into groups. The researchers then expose these grouped participants to each experimental condition. Each group of respondents (subjects) constitutes a block. A researcher divides all subjects into blocks so that the responses amongst blocks can be compared. A block design (the experiment which involves grouping of subjects) is useful to researchers as it allows them to isolate variations attributable to a nuisance variable while simultaneously evaluating two or more treatments and associated interactions. A nuisance variable is one in which the researcher is not interested (willing to keep it ineffective). In a block research design, a single extraneous variable (variable other than the manipulated one within the experiment) that might affect the responses is identified and isolated by blocking its effects (Zikmund, 2000).

Randomised design, which is generally used in conjunction with the experimental conditions, is the one in which researchers, “assign subjects randomly to the experimental conditions” (Kirk, 1995, p.22). A randomised design is, therefore, useful

to identify the main effect (i.e., that effect of one variable) in controlled situations (i.e., by isolating other variables). Thus, randomised design helps to control the effect of a particular variable. When a group of participants with similar characteristics are assigned the experimental condition randomly, it becomes randomized block design. A characteristic of this design is that each experimental treatment is assigned to a group of subjects randomly (Wirtz and Mattila, 2004). This further controls any possible variations in responses that might arise due to differences in characteristics of the study participants due to dissimilar groups.

A **factorial design** is “the one in which all possible combinations of the levels of two or more treatments occur together in the design” (Kirk, 1995, p.364). Since the examination of all possible combinations is possible at one time, factorial designs are most widely used in behavioural sciences (Malhotra, 2004). For example, investigation of the interaction of two or more variables is possible with a factorial design, because it allows the simultaneous manipulations of two or more independent variables (Zikmund, 2000)⁷. This is not possible in other experimental conditions such as in a Latin square experiment (Shapiro and Nieman-Gonder, 2006). Another benefit of a factorial design is it can be used to identify the effect of more than one independent variable on a single dependent variable. Another advantage of a factorial design is that it allows researchers to investigate two or more variables simultaneously. Additionally, a factorial design allows researchers to identify both direct effects and interaction effects simultaneously.

This study included scenarios for hypothetical situations (explained in next section, that is, Section 4.3) to which participants were required to respond. Meaning, block design was not required for this study as each scenario of this study was distinct to other and thus a blocking was not necessary as needed for a block design. Further, a randomised design was also not required (that is, random assignment) for this study because variation in responses due to characteristic of study participants is minimal in a scenario based study (they are required to respond on the incident described in the given scenario). This is not possible in a study where the study participants are required to recall their own experience. In such studies, it becomes necessary to use randomised block design (to minimise the response bias due to their individual characteristics). However, the conditions for a randomised block experiment are

⁷ In factorial design, all possible combinations of all levels of two or more treatment occur together.

complex, mainly because of two conditions (Kirk, 1995). Firstly, the experiment must be assigned randomly to a block of respondents. Secondly, there must be subjects at least equal to the total number of treatments in one group. Taken together, (full) factorial design is considered as more suitable design for this study.

The superiority of the factorial design method over other methods is reflected through its use in many studies including experiments, which are based on hypothetical scenarios (discussed later in Table 4-1, page 82). The present study included 32 hypothetical scenarios where each scenario is a distinct experimental condition. Each scenario was assigned to a separate group of respondents. There were no repeated measures, that is, the respondent of one scenario was not included in the group responding to another scenario. This means that there were no within-subject experiments. Thus, this study applies a factorial design (Malhotra, 2004) with **between-subject** experimental conditions. Between-subject design⁸ has been extensively used by researchers in the services marketing area in the recent past. For example, Michel (2001) employed this design to investigate service quality within the banking industry; Wirtz and Mattila (2004) studied service failure situations in the restaurant industry, and Yen et al. (2004) investigated the topic of consumer expectations in the education industry.

Some experimental studies are also found implementing nested design approach (e.g., Barone and Roy, 2010). They argued that nested designs are useful when all participants of a study are exposed to the same set of condition. Meaning, there is not difference in experimental conditions. Researchers recommend nested design is for studying the effect of sources of variability that manifest themselves over time on a same experimental condition (Khattree, and Naik, 1995; Nist, 2010). Scenario based studies, however, does not rely on single experimental conditions, instead they manipulate multiple experimental conditions (e.g., Mattila and Wirtz, 2004). Further, scenario based studies do not use temporal (that is interval based) observations (Poon et. al., 2004). This researchers has explored the existing scenario based studies, and it appeared that scenario based studies did no use nested design in the past. Table 4-1 lists some of the scenario based studies (none of them used nested design approach). The present study adopted the designs similar to the past scenario based studies (listed in Table 4-1).

⁸ Between subject design puts subjects into different treatment groups.

The following section explores in more detail on scenario-based studies and related experimental conditions.

4.3 Scenario-based studies

Unlike the techniques used for investigating real world incidents (e.g., a traditional survey where respondents are required to recall the incidents), scenario-based studies create hypothetical incidents that have not occurred yet, but closely resemble real incidents and could actually occur in future. The scenario-based methods have gained popularity among researchers in the recent past. Studies in the social sciences have relied on research methodologies, which implement hypothetical scenarios to capture responses from study participants. There are several reasons cited in the literature for adopting scenario-based methods. Firstly, the scenario method permits the best control over the manipulation (internal validity) of otherwise uncontrollable variables (Bitner, 1990; Hocutt, Chakraborty and Mowen, 1997; Mattila, 2001; Smith et al., 1999). Secondly, a researcher using the scenario-based method does not need to compromise external validity as occurs when the survey-based method on real world incidents is used (Bitner, 1990). Thirdly, approximation of a hypothetical scenario with the real world incident can be established by conducting the realism test (Boshoff, 1997). The realism test includes the use of rating scales in which researchers firstly expose respondents to the hypothetical scenario and then ask them to rate whether it could happen in real life.

More recently, the services marketing literature also seems to have adopted the scenario-based method. There are several reasons why this might be the method of choice. Firstly, this method avoids the problems of intentionally imposing service failures on customers (i.e., as would be required in a field experiment), and it minimizes memory-bias, which is common in self-reports of service failures in survey designs (Smith et al., 1999). Secondly, scenarios enhance the variability in customer responses to service recovery, as the stimuli (i.e., scenario) can be effectively controlled and manipulated (Smith and Bolton, 2002). Thirdly, in real-life settings, service recovery ratings are often skewed because of extraneous variables (Shapiro and Nieman-Gonder, 2006) which do not happen in scenarios.

Fourthly, the scenario method reduces problems involving individual differences in responses (Wirtz and Mattila, 2004) because the extraneous factors are ineffective and manipulated variables are controlled. Thus scenarios increase both internal and statistical conclusion validity. Finally, the scenario method has been shown to have ecological validity in service encounter research. That is, the scenario method is most successful when there is a high congruency between the respondent's real-life experiences and the experimental scenarios that they are required to imagine (Dabholkar and Overby, 2005). Some of the existing studies, which examined post-recovery consumer outcomes based on hypothetical scenarios, are summarised in Table 4-1.

As can be seen in Table 4-1, some commonalities as well as differences seem to appear amongst the past studies. Firstly, in regard to their similarity, most of the studies appear to examine two to three levels of the variable (i.e., 2x2 or 3x2). A second similarity appears in the number of subjects in each scenario (Table 4-1). Most studies assigned 20 subjects for one scenario.

One conclusion that can be drawn from the identical trends appearing in these past studies is that researchers have accepted 20 respondents in each scenario as a suitable number for statistical analysis unlike the number in completely randomised designs when more than 30 respondents are usually required to obtain valid statistical results (Zikmund, 2000).

Table 4-1: Summary of hypothetical scenario-based studies

Author	Design	Number of Respondent	Responses per scenario	Service Settings
Boshoff (1997)	3x3x3	540	20	Airlines
Boshoff and Leong (1998)	3x3x3	239	20	Banking
Hocutt et al. (1997)	2x2x2	196	30+	Restaurant
Johnson et al. (1998)	2x2x2	188	25	Legal Service
Levesque and McDougall (2002)	2x2x2x2	636	x*	Retail
Mattila (2001)	2x2x2	115	30+	Dry Cleaning

Table 4-1: Summary of hypothetical scenario-based studies (Continued)

Mattila and Cranage (2005)	2x2x2	240	30	Restaurant
Mattila and Wirtz (2006)	3x3	178	19	Restaurant
Ruyter and Wetzels (2000)	2x2x2x4	xxx***	25	Hairdressing
Schoefer and Ennew (2005)	2x2x2	168	21	Travel
Shapiro and Nieman-Gonder (2006)	3x3	407	x*	Telecom
Swanson and Kelley (2001a)	3x2	180	30	Childcare service
Wirtz and Mattila (2001)	2x2x2	115	13**	Multi Industry
Wirtz and Mattila (2004)	2x2x2	187	20	Restaurant
Yen, Gwinner and Su (2004)	2x2x2	355	x*	Education

*number of responses per scenario was not mentioned within these studies.

**only one study was identified in which the number of respondents per scenario was less than 20.

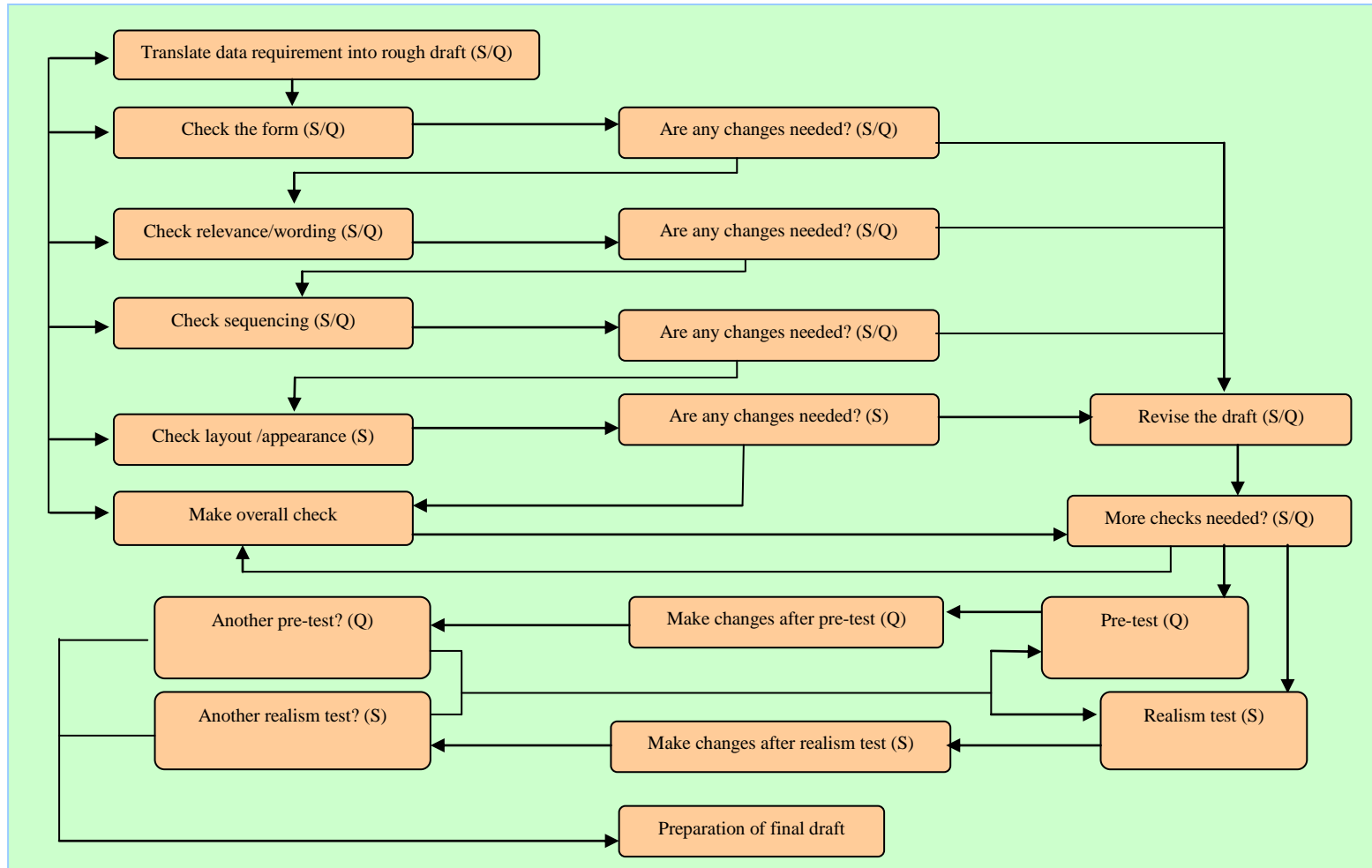
***total number of respondents was not identified.

Secondly, in regard to their dissimilarity, a service setting chosen within scenario-based studies does vary (e.g., airline, banking, and retailing). This could potentially attract the criticism from research scholars arguing that the results based on the scenarios of one service setting may not be generalised across all service industries. This possibility has been identified as one of the limitations of the present study as well, and is explored in Chapter Eight.

4.4 The design process of the scenario and the questionnaire

All scenario-based studies, including those listed in Table 4-1, appear to have followed a common process for development of both the scenario and related questionnaire. This thesis followed a similar process, which is also suggested by Parasuraman (1991) (Figure 4-1). The process of scenario development used in this thesis included conceptualisation, consultation with hotel managers, refining of scenarios, the realism test, the pre-test and preparation of the final draft.

Figure 4-1: The process for designing the scenario and the instrument (S and Q)*



*Activity was part of designing scenario (S), questionnaire (Q), or both (S/Q). Source: Parasuraman (1991).

Similarly, the questionnaire development included the item selection, consultation with hotel managers, sorting of relevant items and the pre-test. A description of these stages for developing the scenarios and the questionnaire is included in this section.

As explained in Section 4.3, this research implemented the scenario-based method in which respondents read a hypothetical scenario and then complete the survey questionnaire. In order to prepare the questionnaire and the scenarios for this study, a series of activities were undertaken (Figure 4-1). The abbreviations within Figure 4-1 indicate whether the activity was meant for developing the scenarios (abbreviated “S”), or the questionnaire (abbreviated “Q”) or both (“S/Q”). The first step in this process was the preparation of the draft of the 32 scenarios. This process included checking the form of the rough draft, checking the relevance and wording of the scenarios, sequencing of the text describing hypothetical incident, layout of the questionnaire, conducting the realism test, undertaking the pre-test and preparation of final draft.

Similarly, questionnaire preparation in scenario-based studies also follows a specific process. Firstly, instruments for the research are adapted from existing studies (e.g., Table 4-8 for demographic questions-discussed later on page 107). The questionnaire is refined by interviewing service industry managers and necessary changes are made. The pre-test is conducted with service industry employees as respondents. The final draft of the questionnaire is prepared after conducting a pre-test of the survey questionnaire. The scenarios are finalised after the realism test has been conducted. This thesis also followed the same process. The following sub-sections discuss each of these phases of this process in more detail.

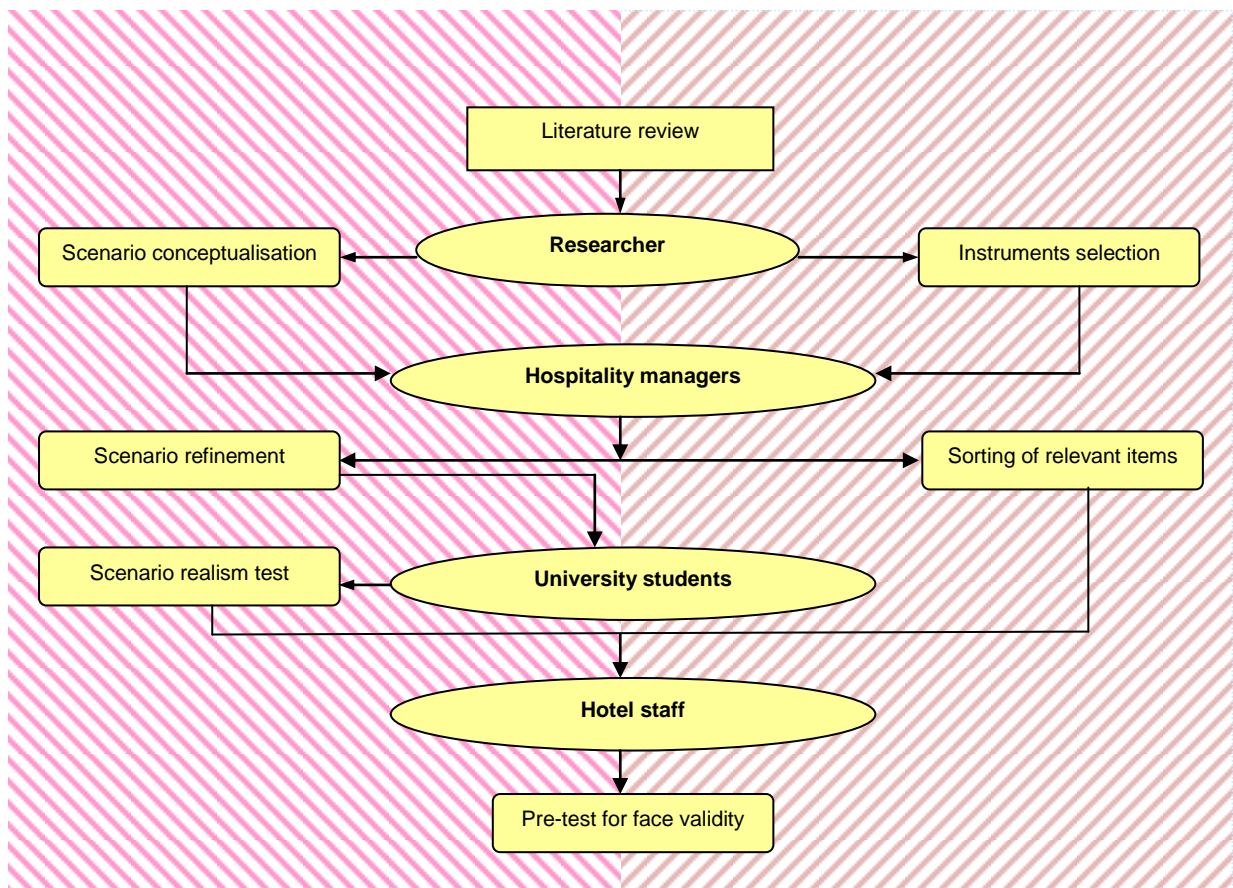
4.4.1 Stages of the design process

The experimental conditions of this study relied on a scenario-based between-subject design method. Researchers have used a similar approach in the recent past to design scenarios and questionnaires (e.g., Amyx, Mowen and Hamm, 2000; Leal and Pereira, 2003; Smith et al., 1999; Zhu et al., 2004). In relation to this, Amyx et al. (2000) employed a scenario-based method to study hospital patients’ satisfaction. Wirtz and Mattila (2004) applied a similar between-subject design to investigate customer repurchase intent and WoM referral to family and friends in the restaurant setting. Boshoff and Leong (1998) used similar manipulations to investigate the effect of

service recovery actions in the banking industry. Leal and Pereira (2003) investigated the effect of service recovery activities using scenarios in financial institutions.

The participants in the design process of this study included industry managers, university students and hotel employees. The contribution made by each group of participants is explained in Figure 4-2. The figure also illustrates the stages of design process. Further, hotel guests participated in the survey process, which was conducted after completing the design process of scenario and questionnaire (Section 4.7, page 111). Within the figure, “square” shapes represent activities undertaken and “oval” shapes with bold letters represent participants. All participants contributed to the process of scenario and questionnaire development. Specifically, to develop hypothetical scenarios to ensure the situation reflects the day-to-day service experiences, hotel managers were consulted. These managers were also asked about the suitability of the questionnaire to assess the hypothetical situation provided.

Figure 4-2: Participants and stages of the design process



A group of undergraduate students contributed to the process of scenario realism-test. This test was undertaken to identify whether the described scenarios resemble real world incidents. After establishing the realism of the scenarios, the pre-test was conducted with hotel employees to identify the face validity of the final set of the questionnaire and scenarios. All these participants together contributed in finalising both the scenario and the questionnaire for the survey. The final group of participants, that is, the hotel guests, made their contribution by completing the questionnaire in the actual survey. The following sections (Section 4.4.2 through to Section 4.4.9) are devoted to explain this process in detail.

4.4.2 The scenarios

This research has employed a (2x2x2x2x2) factorial between-subject experimental design with 32 treatment conditions. The process of developing the scenario was based on the service recovery literature (e.g., Smith and Bolton, 2002; Sparks and McColl-Kennedy, 2001; Thomas, Blattberg and Fox, 2004; Wirtz and Mattila, 2004). As represented conceptually in Chapter Three in Figures 3.1 and 3.2, the types of service failure and service recovery actions are manipulated as independent variables in the scenarios. Service recovery actions are divided into two areas, organisational actions and employee actions. Compensation and employee empowerment are manipulated within the organisational actions while apology and response speed are manipulated within the employee actions. Each independent variable is varied with two levels within the hypothetical scenarios (Table 4-2).

Table 4-2: Manipulations of levels of independent variables

Variable	Varied with	Level I	Level II
Service failure	Failure type	Process failure	Outcome failure
Response speed	Magnitude	High speed	Low speed
Apology	Availability	Apologised	Not apologised
Compensation	Method	Refund	Replacement
Empowerment	Availability	Empowered	Not empowered

As can be seen in Table 4-2, failure is varied with its types, speed with its magnitudes, apology as “not offered” versus “offered”, compensation as “refund”

versus “replacement”, and empowerment as “not empowered” versus “empowered” within the scenarios. The independent variables of this study shall now be discussed.

Within the types of failure, process failure refers to the customers’ unpleasant experience during the service delivery process. This comprises the incidents that happened while using or consuming the service. Outcome failure refers to the final negative perception of the customer about the service while comparing the outcome of a service performance with pre-purchase expectations. This relates to the perception of the customer about the outcome of service performance rather than about the process of service delivery. This manipulation is based on the suggestions of Zhu et al. (2004).

High response speed relates to how fast the service staff deal with customer needs. Previous research, as explored in Chapter Two, suggested that there could be variation in consumer outcomes based on whether the response to the service failure is quick (or not) (e.g., Smith et al., 1999). Therefore, within this study, speed is manipulated as high when service was performed relatively quickly and customer perception of waiting time was insignificant. Low speed of response was captured as more waiting time than expected. This manipulation is identical to that used in the study of Wirtz and Mattila (2004).

Apology has two levels identical to the study of Levesque and McDougall (2002): a) as apology offered, that is, service staff apologises for any inconvenience; and b) not offered, that is, when service staff do not apologise for the inconvenience caused.

In regard to employee empowerment, there have been suggestions that empowered employees can contribute to increased customer satisfaction as well as to enhancing loyalty (e.g., Melham and Irbid, 2004; Wat and Shaffer, 2005). Within this study, empowerment is varied as a) empowered employee, that is, a service staff member is able to decide independently without seeking the authority from senior staff, and b) not empowered employee, that is, a service staff member is unable to offer some benefit to the customer without seeking managerial advice. This manipulation is based on the study of Boshoff and Leong (1998).

Lastly, compensation is varied with its types: a) refund, that is, customers are offered monetary benefits; and b) replacement, that is, customers receive the same service on their second visit. The variations in service failure (process versus outcome),

compensation (refund versus replacement), empowerment (not empowered versus empowered), apology (not offered versus offered), and response speed (low versus high) together yielded 32 different combinations as shown in Table 4-3.

Table 4-3: Combinations of magnitude and levels of variables

1	Process failure	High response speed	No empowerment	Apology	Refund
2	Process failure	High response speed	No empowerment	Apology	Replacement
3	Process failure	High response speed	No empowerment	No Apology	Refund
4	Process failure	High response speed	No empowerment	No Apology	Replacement
5	Process failure	High response speed	Empowerment	Apology	Refund
6	Process failure	High response speed	Empowerment	Apology	Replacement
7	Process failure	High response speed	Empowerment	No Apology	Refund
8	Process failure	High response speed	Empowerment	No Apology	Replacement
9	Process failure	Low response speed	No empowerment	Apology	Refund
10	Process failure	Low response speed	No empowerment	Apology	Replacement
11	Process failure	Low response speed	No empowerment	No Apology	Refund
12	Process failure	Low response speed	No empowerment	No Apology	Replacement
13	Process failure	Low response speed	Empowerment	Apology	Refund
14	Process failure	Low response speed	Empowerment	Apology	Replacement
15	Process failure	Low response speed	Empowerment	No Apology	Refund
16	Process failure	Low response speed	Empowerment	No Apology	Replacement
17	Outcome failure	High response speed	No empowerment	Apology	Refund
18	Outcome failure	High response speed	No empowerment	Apology	Replacement
19	Outcome failure	High response speed	No empowerment	No Apology	Refund
20	Outcome failure	High response speed	No empowerment	No Apology	Replacement
21	Outcome failure	High response speed	Empowerment	Apology	Refund
22	Outcome failure	High response speed	Empowerment	Apology	Replacement
23	Outcome failure	High response speed	Empowerment	No Apology	Refund
24	Outcome failure	High response speed	Empowerment	No Apology	Replacement
25	Outcome failure	Low response speed	No empowerment	Apology	Refund
26	Outcome failure	Low response speed	No empowerment	Apology	Replacement
27	Outcome failure	Low response speed	No empowerment	No Apology	Refund
28	Outcome failure	Low response speed	No empowerment	No Apology	Replacement
29	Outcome failure	Low response speed	Empowerment	Apology	Refund

Table 4-3: Combinations of magnitude and levels of variables (Continued)

30	Outcome failure	Low response speed	Empowerment	Apology	Replacement
31	Outcome failure	Low response speed	Empowerment	No Apology	Refund
32	Outcome failure	Low response speed	Empowerment	No Apology	Replacement

Since the intention for this study was to conduct the investigation in the hospitality service context, the varying levels of service recovery actions are manipulated within the scenario to fit into the hospitality service settings. Table 4-4 (page 91-92) includes these manipulations to create hypothetical incidents causing a service failure and associated service recovery actions. The combinations of different statements described in Table 4-4 are used to compose 32 scenarios. All these scenarios reflect different situations of hospitality service failure incidences.

4.4.3 Refining scenarios

Past studies in service recovery appear consistent in the process of scenario refinement. It is suggested that opinions of industry practitioners should firstly be sought to check the wording and structure of hypothetical incidents (Ruyter and Wetzels, 2000; Swanson and Kelley, 2001a; Weun, Beatty and Jones, 2004). Consultation with industry practitioners is particularly important in identifying whether the situation to be described occurs frequently or commonly in actual service performances (Mattila, 2004). The views of managers are important in establishing realistic scenario descriptions because they (managers) are most likely to be involved in the problem resolution process on behalf of the management when customers complain (Boshoff, 1997; Schoefer and Ennew, 2005).

The second stage of scenario development includes the scenario realism test (Swanson and Kelley, 2001b). This test is important for two reasons. Firstly, the realism test provides researchers with the opportunity to statistically check whether the described incident is deemed to reflect a real service experience. Researchers use rating scales to collect the data for the realism test (Smith et al., 1999).

Table 4-4: Combinations of magnitude and levels of variables

Factors	Variation based on	Varying forms	Manipulation background	Script for the scenario
			Introductory statement to give the background of hospitality (accommodation) service setting. Each scenario description begins with this statement.	You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and.....
Service failure	Failure types	Outcome failure:	where the hotel reservation is prepaid but the guest is not able to get the room. The service staffs explain the reason why the room was not available. Expectations prior to check-in relate to the assumption that the room will be immediately allocated upon arrival.	...informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room.
		Process failure:	where the guest is able to check-in but the accommodation is not ready as promised. This includes untidy room, unusual views, poor ambience and missing amenities.	...informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and ask what is going to be done to find you a clean room.
Compensation	Methods	Refund:	where the employee deals with the post-failure situation by offering some cash as a refund in order to compensate when the customer is not able to get the expected service.	You ask whether you will be compensated for the inconvenience. The manager/clerk tells you that there is clear (no clear) company policy of compensating guests over these kinds of problem. The clerk/manager indicates that they will pay for the night's stay.
		Replacement:	where the customer gets the alternative service instead of a cash refund.	You ask whether you will be compensated for the inconvenience. The manager/clerk tells you that there is clear (no/clear) company policy of compensating guests over these types of problems. The clerk/manager indicates that he will organise a free night's stay for you on another visit.

Table 4-4: Combinations of magnitude and levels of variables (Continued)

Empowerment	Authority to staff	Empowered:	where the employee is authorized to take a decision on behalf of the firm.	The desk clerk indicates that he/she can rectify the problem himself.
		Not empowered:	where the employee has no authority to act on behalf of the organisation in service failure situations and needs approval of the senior staff or managers to decide when and how to compensate the customer.	... the clerk indicates that he cannot rectify the problem himself. He will have to ask the manager how to proceed. The manager contacts you.
Apology	Intention to apologise	Apology:	where the service staff member apologises for the inconvenience caused.	...the clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late. He apologises for the inconvenience caused.
		No apology:	where the service staff does not apologise for the inconvenience.	... the clerk explains that there was a large conference in town and has faced unanticipated demand, with people checking out late. He goes on to say that these things happen in big organisations.
Response speed	Magnitude	High speed: (process failure)	where the customer gets the immediate attention of the service staff and recovery actions are taken quickly to correct the process failure.	.....the clerk or the manager indicates that it will take 30 minutes to clean the room.
		High speed: (outcome failure)	where customer gets immediate attention of service staff and recovery actions are taken quickly to correct the outcome failure.	..... the clerk or the manager indicates that they will find you alternative accommodation and this should take approximately 30 minutes.
		Low speed: (process failure)	where the response to the failure is slow and the decision to take suitable recovery actions is delayed in process failure.	....the clerk or the manager indicates that he will send up a porter to move you to a new room
		Low speed: (outcome failure)	where the response to the failure is slow and the decision to take suitable recovery actions is delayed in outcome failure.	. ... the clerk or the manager indicates that he will call the hotel next door to organise a room there.

Secondly, the realism test identifies any industry bias by highlighting any gap between managerial perception of service standards and customer perception of actual performance. This is possible because researchers conduct the realism test on scenarios after making the necessary changes from the managers' suggestions (Wirtz and Mattila, 2004). The changes in the written scenarios after consulting with the managers and conducting the realism test are discussed in following sections.

4.4.4 Opinions of managers

As stated in Section 4.4.2, the scenarios used in this study illustrate the hotel accommodation service failure situation because it was intended to conduct the research survey in a hospitality setting. Therefore 16 hotel managers were consulted to refine the scenarios. Two scenarios, one of process failure and another of outcome failure, were discussed with each manager (Appendix A, page 260). They were asked to read and comment on the scenarios. The Hotel Managers' suggestions included changes in layout, wording and structure of sentences. For example, following section of a scenario:

“ ... The clerk explains that there was a large conference in town and has faced unanticipated demand, with people checking out late. He goes on to say that these things happen in big organisations”

was changed to:

“ ... The clerk explains that there was a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. They go on to say that these things happen in big organisations.”

One of the revised scenarios based on the hotel managers' opinions is shown in Table 4-5. Appendix A (page 252 through to 259) provides all 32 scenarios describing failure incidents.

Table 4-5: Example of scenario (Scenario One*)

You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and ask what is going to be done to find you a clean room. The desk clerk indicates that he cannot fix it himself. They will have to ask the manager how to proceed. The manager contacts you and indicates that he will send up a porter to move you to a new room. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will pay for the nights stay.

**one of the 32 scenarios in which the included are process failure, no empowerment, high response speed, apology, and refund*

4.4.5 The realism test

The rewritten scenarios were rechecked with industry practitioners, and they were then pilot tested to evaluate the level of realism reflected in the situation described. The test was carried out with a convenient sample of university students. Thirty-two undergraduate students who had stayed at hotels as a guest more than five times were selected to ensure that they reflected the real hotel visitor's attitudes. Each student was assigned three scenarios at random and asked to evaluate how realistic each scenario is (Appendix A, page 261). This technique has been used in past scenario-based studies which are listed in Table 4-1 (page 82). The question asked to capture the ratings for how likely was the incident to occur in real life was:

“Based on the above scenario [e.g., Table 4-5, page 93], please indicate the extent to which you think this incident could happen in real life”.

This question was identical to the one used by Ruyter and Wetzels (2000), Swanson and Kelley (2001b), Schoefer and Ennew (2005), and Yen et al. (2004). This question followed one of 32 scenarios which the respondents were asked to read (Appendix A, page 252 for all 32 scenarios). A total of 96 responses (three for each scenario) were received from the students. A 9-point Likert-type scale was used to capture the likelihood of the hypothetical scenario happening in real world (1=not at all likely to 9=extremely likely). A summary of the mean values of responses to each scenario is included in Table 4-6.

Table 4-6: Mean responses from realism test

Scenario No	Response 1	Response 2	Response 3	Sum	Mean
1	8.00	7.00	9.00	24.00	8.00
2	9.00	9.00	8.00	26.00	8.67
3	8.00	8.00	8.00	24.00	8.00
4	8.00	8.00	7.00	23.00	7.67
5	6.00	8.00	9.00	23.00	7.67
6	9.00	9.00	9.00	27.00	9.00
7	8.00	9.00	8.00	25.00	8.33
8	9.00	7.00	8.00	22.00	8.00
9	8.00	9.00	8.00	25.00	8.33
10	7.00	8.00	8.00	22.00	7.67
11	6.00	8.00	9.00	23.00	7.67
12	9.00	9.00	9.00	27.00	9.00
13	8.00	9.00	8.00	25.00	8.33
14	8.00	7.00	8.00	22.00	7.67
15	6.00	8.00	9.00	23.00	7.67
16	9.00	9.00	9.00	27.00	9.00
17	8.00	9.00	8.00	25.00	8.33
18	6.00	8.00	9.00	23.00	7.67

Table 4-6: Mean responses from realism test (Continued)

19	9.00	9.00	9.00	27.00	9.00
20	8.00	9.00	8.00	25.00	8.33
21	9.00	9.00	8.00	22.00	8.67
22	8.00	9.00	8.00	25.00	8.33
23	7.00	7.00	8.00	22.00	7.33
24	9.00	9.00	9.00	27.00	9.00
25	7.00	9.00	9.00	25.00	8.33
26	6.00	8.00	9.00	23.00	7.67
27	8.00	8.00	8.00	24.00	8.00
28	9.00	8.00	8.00	25.00	8.33
29	8.00	7.00	9.00	24.00	8.00
30	8.00	9.00	8.00	25.00	8.33
31	8.00	8.00	8.00	24.00	8.00
32	9.00	7.00	9.00	25.00	8.33
			Mean score	262.3/32	8.20

While the percentage likelihood of each scenario is different, the overall mean score of 8.20 indicates that participants perceived that all scenarios are highly realistic and thus reflect real life service experiences. These scenarios were then accompanied by anchored items (to be discussed in following section) to conduct the pre-test.

4.4.6 The questionnaire

This thesis investigates the impact of service recovery actions on a range of consumer outcomes in a service failure experience of a customer. The seven consumer outcomes to be measured are repurchase intent, expectation update, complaint motive, overall satisfaction, switching intent, enhanced loyalty and WoM referral. In order to develop the questionnaire, the literature was reviewed and the items measuring the dependent variables were adopted from previous research (Appendix A, page 263). The literature sources of the instruments are summarised in Table 4-7 (next page).

There are many reasons, as suggested in the literature, why the items should be selected from existing studies. Firstly, reliability and validity of the items were already established in the past studies and therefore, they are most likely to be statistically reliable (i.e., they have acceptable ranges of coefficient of alpha values) as well as valid (statistical validity) in these other studies.

Table 4-7: Literature source of questionnaire

Item No.	Authors	Original Item	Adaptation and Deletion	Final item* (Included in survey questionnaire)
Construct 1: Repurchase intention				
1.	DeWitt and Brady (2003)	I would continue doing business with this firm over the next few years.	I would continue doing business with this hotel over the next few years.	
2.	Boshoff (1997)	Given your experience, would you use Airlines again in the future?	Given your experience, would you use this hotel again in the future?	Given your experience, would you use this hotel again in the future?
3.	Boshoff (1997)	Would this method of complaint handling ensure that you use Airlines again in the future?	Would this method of complaint handling ensure that you use this hotel again in the future?	
4.	Maxham and Netemeyer (2003)	If you were in the market for electronics, how likely would you be to use (firm)?	If you were thinking to book a hotel, how likely would you be to use this?	
5.	Maxham and Netemeyer (2003)	In the near future, I will not use (firm).	In the near future, I will not use this hotel.	
6.	Patterson and Smith (2001)	I will lose a friendly and comfortable relationship if I change.	I will lose a friendly and comfortable relationship if I change.	
7.	Swanson and Kelley (2001a)	Would you use this again if you had a choice?	Would you use this again if you had a choice?	Would you use this hotel again if you had a choice?
8.	Swanson and Kelley (2001a)	How likely would you be to repurchase from this.... in the future?	How likely would you be to repurchase from this in the future?	
9.	Colgate and Lang (2001)	What is the likelihood that you will go back to this next time you need this service?	What is the likelihood that you will go back to this next time you need this service?	
10.	Mattila (2001)	Consider this company your first choice in the service category.	Consider this hotel your first choice in the service category.	I would consider this company my first choice in the service category.

*Items selected for final survey (from the list of adopted items) after discussing with hotel managers, and checking face validity in the pre-test.

Table 4-7: Literature source of questionnaire (continued)

Item No.	Authors	Original Item	Adoption and Deletion	Final item* (Included in survey questionnaire)
Construct 2: Expectation update				
11.	Brown, Cowles and Tuten (1996)	I will expect better service the next time I go to this store.	I will expect better service the next time I go to this hotel.	I will expect better service the next time I go to this hotel.
12.	Maxham and Netemeyer (2002)	I have high expectations that [firm name] will fix the problem.	I have high expectations that hotel will fix the problem.	
13.	Maxham and Netemeyer (2002)	My expectations are high that I will receive compensation when I encounter a banking service problem.	My expectations are high that I will receive compensation when I encounter a hotel service problem.	I expect that I will receive compensation when I encounter a service problem.
14.	Maxham and Netemeyer (2002)	I expect [firm name] to do whatever it takes to guarantee my satisfaction.	I expect this hotel to do whatever it takes to guarantee my satisfaction.	I expect this hotel to do whatever it takes to guarantee my satisfaction.
15.	Maxham and Netemeyer (2002)	I think [firm name] will quickly respond to (banking) problems.	I think this hotel will quickly respond to the problems.	
Construct 3: Complaint motive				
16.	Kim, Kim, Im and Shin (2003)	Will you complain about your dissatisfaction to the retailer?	Will you complain about your dissatisfaction to the hotel?	
17.	DeWitt and Brady (2003)	Given the circumstances, I would complain to the frontline employees.	Given the circumstances, I would complain to the frontline employees.	Given the circumstances, I would complain to the frontline employees
18.	DeWitt and Brady (2003)	Taking everything into consideration, I would return home and complain to the firm by telephone.	Taking everything into consideration, I would return home and complain to the firm by telephone.	Taking every thing into consideration, I would return home and complain to the firm by telephone.**

*Items selected for final survey (from the list of adopted items) after discussing with hotel managers, and checking face validity in the pre-test.

**data related to these items was excluded from analysis due to low reliability

Table 4-7: Literature source of questionnaire (continued)

Item No.	Authors	Original Item	Adoption and Deletion	Final item* (Included in survey questionnaire)
19.	DeWitt and Brady (2003)	Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service.	Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service.	Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service.
20.	DeWitt and Brady (2003)	Given the circumstances, I would inform the firm about my problem.	Given the circumstances, I would inform the hotel about my problem.	
21.	DeWitt and Brady (2003)	Overall, if this had happened to me, I would be very likely to complain to the firm.	Overall, if this had happened to me, I would be very likely to complain to the hotel.	Overall, if this had happened to me, I would be very likely to complain to the management.
22.	DeWitt and Brady (2003)	Overall, if this had happened to me, I would be very likely to voice my dissatisfaction to the firm.	Overall, if this had happened to me, I would be very likely to voice my dissatisfaction to the hotel.	
Construct 4: Overall satisfaction				
23.	Boshoff (1997)	How satisfied would you be?	How satisfied would you be?	
24.	Boshoff (1997)	I am satisfied with my overall experience with (firm).	I am satisfied with my overall experience with the service.	
25.	Boshoff (1997)	How satisfied are you overall with the quality of (firm)?	How satisfied are you overall with the quality of hotel?	Overall, how satisfied would you be with the service on this particular occasion?
26.	DeWitt and Brady (2003)	My overall evaluation of service provided by this firm will not be very good.	My overall evaluation of service provided by this hotel will not be very good.	

*Items selected for final survey (from the list of adopted items) after discussing with hotel managers, and checking face validity in the pre-test.

Table 4-7: Literature source of questionnaire (continued)

Item No.	Authors	Original Item	Adoption and Deletion	Final item*
				(Included in survey questionnaire)
27.	Mattila (2001)	How would you feel about the organization on this particular occasion?	How would you feel about the organisation on this particular occasion?	
28.	Mattila (2001)	How satisfied would you be with the company's handling of the problem?	How satisfied would you be with the company's handling of the problem?	How satisfied would you be with the hotel's handling of the problem?
Construct 5: Switching Intent				
29.	Patterson and Smith (2001)	I am not looking for another. . to replace the present one.	I am not looking for another hotel to replace the present one.	I would not look for another hotel to replace this hotel.**
30.	Patterson and Smith (2001)	I wish to retain my relationship with (firm).	I wish to retain my relationship with the hotel	
31.	Patterson and Smith (2001)	Considering all things, I would waste a lot of time if I change (service suppliers).	Considering all things, I would waste a lot of time if I change the hotel.	Considering all things, I would waste a lot of time if I change this hotel.
32.	Patterson and Smith (2001)	I will lose a friendly and comfortable relationship if I change.	I will lose a friendly and comfortable relationship if I change.	I will lose a friendly and comfortable relationship if I change
33.	Patterson and Smith (2001)	If I change there is a risk the new one (service supplier) won't be as good.	If I change there is a risk the new one won't be as good	If I change, there is a risk the new hotel won't be as good as this hotel.
34.	Patterson and Smith (2001)	If I change (suppliers) I will have to spend a lot of time explaining my condition to a new. . .	If I change hotel I will have to spend a lot of time explaining my condition to a new hotel.	
35.	Patterson and Smith (2001)	All . . . are much the same, so it would not really matter if I changed.	All hotels are much the same, so it would not really matter if I changed.	All hotels are much the same, so it would not really matter if I change hotel.**

* Items selected for final survey (from the list of adopted items) after discussing with hotel managers, and checking face validity in the pre-test.

**Data related to these items was excluded from analysis due to low reliability (This will be discussed in Chapter Seven).

Table 4-7: Literature source of questionnaire (continued)

Item No.	Authors	Original Item	Adoption and Deletion	Final item* (Included in survey questionnaire)
36.	Swanson and Kelley (2001b).	I would not look for another (firm) to replace the present one.	I would not look for another hotel to replace the present hotel.	
Construct 7: WoM referral				
37.	Swanson and Kelley (2001b)	I would try to convince my friends and relatives to use this.	I would try to convince my friends and relatives to use hotel.	
38.	Swanson and Kelley (2001b)	I would warn others about using this.	I would warn others about using this hotel.	I would warn others about using this hotel.
39.	Swanson and Kelley (2001b)	I would be likely to convince my friends and relatives not to use this.	I would be likely to convince my friends and relatives not to use this hotel.	I would be likely to convince my friends and relatives not to stay in this hotel.
40.	Swanson and Kelley (2001b)	I would be likely to recommend this to others.	I would be likely to recommend this hotel to others.	I would be likely to recommend this hotel to others.
41.	Mattila (2001)	Say positive things about the service company to others.	Say positive things about the service company to others.	
42.	Mattila (2001)	Recommend the company to others	Recommend the hotel to others.	
43.	Mattila (2001)	Encourage friends and relatives to do business with the company.	Encourage friends and relatives to do business with the hotel.	

* Items selected for final survey (from the list of adopted items) after discussing with hotel managers, and checking face validity in the pre-test.

Table 4-7: Literature source of questionnaire (continued)

Item No.	Authors	Original Item	Adoption and Deletion	Final item* (Included in survey questionnaire)
Construct 6: Enhanced loyalty				
44.	Mattila (2001)	Do more business with this company in the future.	Do more business with this hotel in the future	
45.	Patterson and Smith (2001)	I'm committed to my relationship with . . .	I'm committed to my relationship with this hotel.	I wish to retain my relationship with this hotel.
46.	Patterson and Smith (2001)	The relationship is important for me to maintain.	The relationship is important for me to maintain with this hotel.	The relationship with this hotel is important for me to maintain.

* Items selected for final survey (from the list of adopted items) after discussing with hotel managers, and checking face validity in the pre-test.

Note: Data of the selected items measuring switching intent and complaint motive (marked as**) was not used in analysis due to low reliability.

Table 4-7 included a total of 46 items measuring consumer outcomes. When selecting these items, firstly, previous studies conducting experimental examinations with a focus on scenario method were identified. Second, items of interest to this study, that is the items that could measure the dependent variables, were identified. Third, the identified items were then discussed with university scholars and colleagues. Items identified as inappropriate were removed and not used in this study. Those needing to be changed were identified and the necessary changes were made. For example, the item “The relationship is important for me to maintain” was changed to “The relationship with this hotel is important for me to maintain”. Whereas the item “I would be likely to recommend this hotel to others” remained unchanged.

Secondly, the scales of measurement in the past studies within service failure settings are identical. It appears that seven point Likert-type scales were commonly used in the past. For example, items to measure repurchase intent in the study of Boshoff (1997), DeWitt and Brady (2003), Maxham and Netemeyer (2003), Patterson and Smith (2001) and Swanson and Kelley (2001a), were identical. Respondent rated each of the measures on the same seven point Likert-type scale that ranges from 1(Definitely yes) to 7(Definitely not)”. With regard to this, Malhotra (2004) indicated that replicating items with exact scales used in other studies assists researchers to establish the reliability and validity of their instrument.

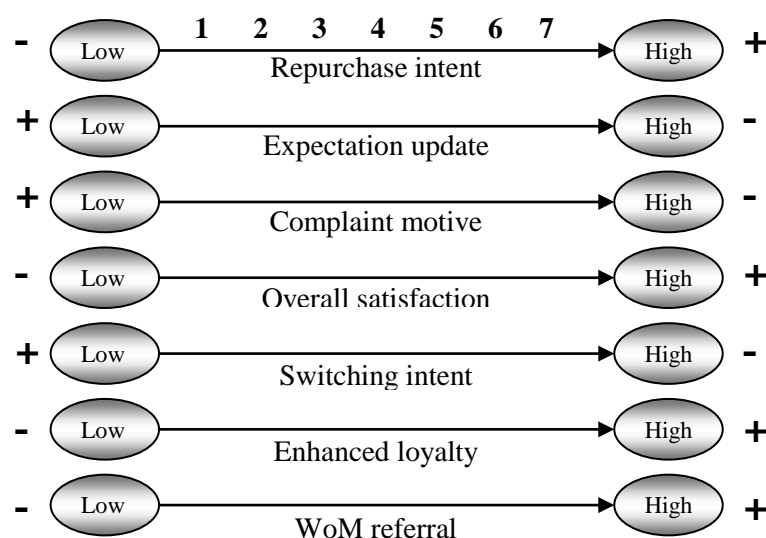
Despite the ease of establishing reliability and validity, the experimental conditions of new research settings cannot be identical as each service situation is different (Lovelock et al., 2004). Therefore researchers still need to assess the reliability of their instrument even if the items and scales were used in pervious research. In this study, the reliability of the instrument was also reassessed. This will be explained in more detail in Chapter Five.

The third reason to adopt the items from existing studies is that all existing studies, that intended to measure the consumer outcomes (which are the dependent variables of this study), have used very similar items. The only difference that appeared was in the wording based on the type of industry. Thus, this research has relied on available items of measurement rather than creating new ones, as new ones might create some unforeseen complications (e.g., unreliable data). The independent variables to be measured in this study are shown in Figure 4-3 (next page).

Anchors of all items within this study were intended to measure the magnitude of seven consumer outcomes with the scale ranging from 1 to 7. Figure 4-3 also shows the direction (lower to higher) of consumer outcomes that a service provider would expect with recovery strategy. That is, this figure incorporates the direction of scale measurement of each variable in favour of the organisation (+) versus not in favour (-) of the organisation. Organisations might expect that the levels of four of the variables (repurchase intent, overall satisfaction, enhance loyalty, and WoM referrals) could be higher (+) whereas the levels of the others (expectation update, complaint motive, and switching intent) could be lower (-) with service recovery.

Meaning, managers might prefer to see **improvements** in these consumer outcomes in favour of the organisation by increasing the former four outcomes (e.g., repurchase intent) and decreasing the other three (e.g., switching intent). The reverse order of this improvement would be the **deterioration** in consumer outcome, which is not in favour of the organisation. For example, decreasing repurchase intent and increasing switching intent may not be in favour of the organisation. These issues are further discussed in Section 7.2. Below is the discussion on the items that were used to measure these variables and their sources (past studies).

Figure 4-3: Scales of measurement for dependent variables



Source: Rafiq and Ahmed (1998, p.387)

In order to measure the variable “repurchase intent”, a total of 10 items were initially chosen from existing studies to begin the questionnaire preparation process explained in Section 4.3 and Figure 4-1. Specifically, the item, “I would continue doing business with this firm over the next few years” was taken from the study of DeWitt and Brady (2003); “Given your experience, would you use this.....again in the future?” and, “Would this method of complaint handling ensure that you use thisagain in the future?” were sourced from Boshoff (1997). Since the respondents for the present study were from hotels, the word ‘firm’ in all of the original items was replaced with ‘hotel’. The items, “...how likely would you be to use this firm?” and, “In the near future, I will not use the (firm)” were sourced from Maxham and Netemeyer (2003) and modified to fit into the context of this study. The item, ‘I will lose a friendly and comfortable relationship if I change’ was adopted from the study of Patterson and Smith (2001). Similarly, two items, “Would you use this again if you had a choice?” and, “How likely would you be to repurchase from thisin the future?” were adopted from Swanson and Kelley (2001b). One item “What is the likelihood that you will go back to thisnext time you need this service?” was taken from Colgate and Lang (2001). The last item was adopted from the study of Mattila (2001) as, “Consider this company your first choice in the service category”. All items were anchored with ‘1’=‘Definitely yes’ to ‘7’=‘Definitely not’. All items were anchored with ‘1’=‘Definitely yes’ to ‘7’=‘Definitely not’ so that respondent can rate each of the measures on the same seven point Likert-Type scale.

One item to measure ‘expectation update’ following service recovery was adopted from Brown et al. (1996) which was stated as, “I will expect better service the next time I go to this store”. The word ‘store’ was replaced with ‘hotel’ for the present study. All other items were taken from the study of Maxham and Netemeyer (2002). As hotel guests were the respondents of the current study, the word, ‘bank’ was replaced with ‘hotel’. The items were; “I have high expectations that (firm name) will fix the problem”; “My expectations are high that I will receive compensation when I encounter a banking service problem”; I expect (firm name) to do whatever it takes to guarantee my satisfaction”; and “I think (firm name) will quickly respond to (banking) problems”. A

total of five items each with 7 point Likert-type scales from '1=Strongly disagree' to '7=Strongly agree' were used to measure this variable.

Similar anchors were used for items measuring the variable 'complaint intent'. One item was taken from Kim et al. (2003) as, "Will you complain about your dissatisfaction to the retailer?" The word 'retailer' was replaced with 'manager'. Another six items were adopted from DeWitt and Brady (2003) as follows: "Given the circumstances, I would complain to the frontline employees"; "Taking everything into consideration, I would return home and complain to the firm by telephone"; "Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service"; "Given the circumstances, I would inform the firm about my problem"; "Overall, if this had happened to me, I would be very likely to complain to the firm" and "Overall, if this had happened to me, I would be very likely to voice my dissatisfaction to the firm." Once again, the word "firm" was replaced with "hotel". These items were anchored from '1=Strongly disagree' to '7=Strongly agree'.

For the variable "overall satisfaction", a total of six items were selected. Three items: "How satisfied would you be?"; "I am satisfied with my overall experience with the (firm)"; and, "How satisfied are you overall with the quality of (firm)?" were adopted from Boshoff (1997). The word 'firm' was replaced by 'hotel' in both items. Similarly, two items were selected from the study of Mattila (2001) as follows: "How would you feel about the organization on this particular occasion?" and "How satisfied would you be with the company's handling of the problem?" One item, "My overall evaluation of service provided by this firm will not be very good" was adopted from the study of DeWitt and Brady (2003), and again the word "firm" was replaced with "hotel". These items were anchored from 1='Very satisfied' to 7='Very dissatisfied'.

Similarly, eight items were chosen for the construct "switching intent". The item "I would not look for another hotel to replace the present hotel" was sourced from Swanson and Kelley (2001b). All other items for switching intention were adopted from Patterson and Smith (2001). The items were; "I am not looking for another ... to replace the present one"; "I wish to retain my relationship with this (firm)"; ".....I would waste a lot of time if I change this (service provider)"; "I will lose a friendly and comfortable relationship if I change"; "If I change there is a risk the new (service provider) won't be as good"; "If I change (suppliers), I will have to spend a lot of time

explaining my condition.....”; and “.....it would not really matter if I change”. The word “hotel” replaced “the service company” in all items. The anchors for the scales were chosen from ‘1’=‘Definitely yes’ to ‘7’=‘Definitely not’ for all items so that respondent can rate each of the measures on the same seven point Likert-Type scale.

In order to measure enhanced loyalty, three items were adopted. One item, “Do more business with this company in the future” was adopted from the study of Mattila (2001). Another two items, “I’m committed to my relationship with” and “The relationship is important for me to maintain” were sourced from Patterson and Smith (2001). These items were anchored with ‘1=Definitely yes’ to ‘7=Definitely not. All items were anchored with ‘1’=‘Definitely yes’ to ‘7’=‘Definitely not’ so that respondent can rate each of the measures on the same seven point Likert-Type scale.

In order to measure WoM referral, four items were sourced from the study of Swanson and Kelley (2001b). They are: “I would try to convince my friends and relatives to use this”; “I would warn others about using this”; “I would be likely to convince my friends and relatives not to use this”; and “I would be likely to recommend this to others”. A further three items: “Say positive things about this to others”; “Recommend the company to others” and “Encourage friends and relatives to do business with the company” were adopted from Mattila (2001). All items were anchored on a Likert-type scale from ‘1’=‘Definitely yes’ to ‘7’=‘Definitely not’ so that respondent can rate each of the measures on the same seven point Likert-Type scale.

4.4.7 Demographic questions

A range of demographic questions were also developed for this study. The demographic questions were intended to explore the characteristics of the sample of this study. This included questions designed for the collection of information from respondents to identify their visiting patterns to the hotel; e.g., how many days they stayed in the hotel chain; how many nights they stayed within one year; and how frequently they visit the same chain of hotels. A set of eight questions was developed for this purpose (Table 4-8).

These demographic questions were also intended to find the channels used for booking as well as the purpose of the visit to the hotel. The questions were identical to those used in the studies of Boshoff (1997), Maxham and Netemeyer (2002), Patterson and

Smith (2001) and Wirtz and Mattila (2004), except the word “hotel” in these questions replaced the service settings of past studies.

Table 4-8: Demographic questions included in the survey

1.	What is your gender?
2.	What is your age?
3.	What is your country of residence?
4.	Over the past year, how many days have you stayed at this hotel or in the same chain?
5.	Over the past year, how many nights have you stayed in hotels?
6.	Who did the booking for you?
7.	What was the purpose of this stay?
8.	How did you book the hotel?

4.4.8 Managers’ comments

The items incorporated in the survey, as reported earlier, were sourced from existing studies (Table 4-7, page 96). Although the validity of the instruments were established in earlier studies, response bias was still possible because of the different setting of the experiment in the present study from those of previous studies (DeWitt and Brady, 2003). Also, the set of items sourced was a combination of items from various studies. In addition, each experiment consisted of a service setting and thus bias was still possible, as services are situation specific (Lovelock et al., 2004). Therefore, the suitability of each item needs to be established in a given research setting even if the instrument, from which each item was adopted, is valid for the studies in other settings (Boshoff, 1997; Maxham and Netemeyer, 2002).

To confirm whether the items of past research are suitable for the study, 16 hotel managers were asked to comment on the questionnaire and scenario. This approach has been used previously by Maxham and Netemeyer (2002). Managers were requested to read the scenarios and questions first, and then they were asked to put forward their opinions about each item using their skills, expertise and practical experience. The managers were asked to comment whether the item was: a) totally relevant; b) will be more relevant if stated otherwise; or c) totally irrelevant. Items rated as “totally irrelevant” were removed from the survey, while those that required changes were further discussed with the hotel managers for suitable wording before being included in the survey. Out of the total 46 items (Table 4-7, page 96), 17 items were rated by managers as totally irrelevant, and therefore they were removed from the survey

questionnaire (Appendix A, page 269). This process resulted in the reduction of the total number of items to 29.

The demographic questions were also discussed with the hotel managers and some changes were made based on their comments. For example, ‘agent’ and ‘employer’ were added as the possible choice for the question “Who did the booking for you?” A new question “How did you book the hotel” was also added as suggested by managers.

4.4.9 The Pre-test

The refined questionnaire was then pre-tested with the hotel employees. Three pre-test participants were given one of the 32 scenarios, which had already been tested for realism (Section 4.4.5, page 94). The purpose of the pre-test was twofold: 1) to further establish the face validity of both the survey questionnaire and the demographic questions; and 2) to further ensure that the scenarios were appropriate. The realism test had established the suitability of the incident described in the real world, but it was conducted with students who viewed scenarios from the customer’s perspective. Further, hotel employees are involved in service encounters and it was considered that their suggestions might further help to relate the scenarios to the real incidents from the employee perspective. Ruyter and Wetzels (2000) also used similar process in their study. For this study, hospitality employees were firstly asked to read a scenario and then requested to rate the items based on the situation described within the given scenario (permission was obtained from the management to undertake this activity – see Section 4.6). As stated earlier, all the items presented in the questionnaire after the written scenario consisted of 7-point Likert-type scales in which respondents were required to decide whether they agreed with the statement or not. They were also requested to notify the researcher if there was any difficulty in understanding the items.

In the pre-test, for each of the 32 scenarios, only three respondents were involved, yielding a total of 96 responses. Statistical analysis on the pre-test data was therefore not possible because the response to items would vary with each scenario. The patterns of responses in the pre-test were observed closely by this researcher and it was noticed that some responses did not have any meaning, that is, they did not show face validity. Also, participants reported difficulty in understanding the specific meaning of these items. As a result, a further seven items were removed from the list of questions

suggested by managers (Appendix A, page 269). The final instrument to be used in survey now consisted of only 22 items (Table 4-7, page 96-101).

The remaining 22 items were finalised and included in the survey questionnaire used with the real population sample (Appendix A, page 272). Each survey questionnaire followed a described scenario, in which respondents were asked to evaluate 22 items on seven point Likert-type scales (Figure 4-3, page 103). Seven items anchored with “1=strongly disagree to 7=strongly agree” measured complaint motive (four items) and expectation update (three items). Similarly, two items measured overall satisfaction with “1=very satisfied to 7=very dissatisfied”. Thirteen items anchored with “1=definitely yes to 7=definitely not” measured WoM referrals (three items), switching intent (five items), repurchase intent (three items), and enhanced loyalty (two items) (Table 5-4, page 121; and Appendix A, page 272).

Along with the demographic questions that participants were asked to complete, they were also requested to describe how they thought the situation could be handled best on the specific occasion described within the scenario (Appendix A, page 272). Thus, the survey questionnaire consisted of four sections: a described scenario; questions to measure dependent variables; demographic questions; and an open-ended question.

4.5 Sample size

Studies based on scenario manipulations are frequently used in the service recovery literature. Boshoff (1997) used 27 scenarios across 540 respondents (20 responses for each scenario) to examine the effect of time and speed on customer satisfaction. Similarly, Mattila and Cranage (2005) examined the change in attitudes of 240 respondents (more than 17 responses per scenario). Table 4-1 (page 82) summarises scenario-based past studies. The table also provides the number of respondents for each scenario and total sample size.

Based on the available literature, the minimum number of respondents used for each scenario was 13 (Wirtz and Mattila, 2001), while 60 respondents per scenario was the maximum (Swanson and Kelley, 2001b). The majority of studies (10 out of 16) relied on 20 or fewer respondents per scenario (Table 4-1 on page 82). These studies argued that 20 respondents for each scenario was an acceptable number for the statistical validity of the data. This is identical to the suggestion of Malhotra (2004) who

mentioned that a sample size of 20 is acceptable in experimental conditions where extraneous variables are controlled. Similarly Hair et al. (2005, p.342) suggested that a cell (group) size of 20 observations is acceptable in experimental treatments. The number of valid responses for each scenario sought within this thesis was therefore set at 20. This required 640 valid responses, that is, 20 responses to each of the 32 scenarios.

The sample of this study consisted of real visitors at one location of a major international chain of hotels. The potential respondents were selected from the groups of travellers who were visiting Australia between August 2005 and November 2005. A total of 640 valid responses were obtained from the survey at the rate of 20 valid responses to each scenario. Each respondent was exposed to one scenario (out of 32) for evaluation and then asked to complete the questionnaire attached with the scenario (Appendix A, page 272).

4.6 Access to the respondents and ethical issues

This study was carried out in Australia, which involved four characteristic samples. Firstly, a sample of managers from a hotel chain was consulted to refine the hypothetical service failure scenarios and the questionnaire. In order to gain access to the managers, written permission from the chosen hotel chain was obtained by sending a formal letter (see Appendix B, page 275). Participating managers were given the written information about the research (see Appendix B, page 276). They were also required to sign the form of their eligibility to participate.

Secondly, after refining the questionnaire with the help of the hotel managers, a sample of university students was approached to conduct the realism test of scenarios. This test was undertaken within the University premises and therefore written permission was not needed from the participants. However, participating students were required to read an information letter prior to the test in which they were informed of their rights to withdraw. The contact details of the researcher and supervisors associated with the project, and of the University Human Research Ethics Committee were also provided.

Thirdly, following the realism test, the survey was pre-tested with hotel staff. In order to gain access to hospitality employees for the pre-test, written permission from the hotel chain was obtained together with permission to access the managers, as both

groups of participants represented the same organisation. In addition these respondents were also required to read the information about the research (Appendix B, page 276).

Fourthly, the participants in the final survey were sampled from the groups who had been visiting Australia and staying at the chosen hotel in Melbourne. An information letter authorised by University Human Research Ethics Committee was presented to each participant prior to the research activity. Confidentiality and privacy of the information collected was assured in accordance to the University's ethical requirements. Prior to the completion of the questionnaire, respondents of the survey questionnaire were required to read the information letter which was similar to the one included in Appendix B (page 276). Rights to withdraw from the project were maintained for all participants.

4.7 The data collection process

Data collection was carried out in two phases: 1) the pre-test; and 2) the final survey. During the pre-test, the survey instrument was piloted on a randomly selected sample of hospitality staff that had stayed in a hotel (as this is the survey context). The pre-test confirmed the face validity of the instrument and the realism test established in the validity of experimental scenarios. The reliability of the construct was tested after the survey and this will be explained in Section 5.3. This process is consistent with the earlier experimental studies (e.g., Levesque and McDougall, 2002).

In phase two, data for the quantitative part of the study was obtained from the survey which was conducted by requesting participants in person, as suggested by Zikmund (2000) and Zwick and Rapport (2002). Prior to providing the material (written scenarios and corresponding questionnaire) to respondents, the information sheet containing the explanation of ethical issues was provided and respondents were asked whether they were eligible to participate. The questions that the respondents were asked to check their eligibility to participate included:

- Are you over eighteen years of age?*
- Are you currently staying in the hotel?*
- Have you stayed at least three nights in a hotel over the past year?*
- Have you stayed in a hotel for more than 7 days in total?*

The final survey consisted of four sections. The first section contained a described hypothetical scenario which had been developed in such a way that all combinations of independent variables (i.e., recovery actions as listed in Table 4-2 (page 87) were manipulated. The manipulation process followed the guidelines of Keppel (1991). Each respondent was provided with one scenario to read. In the second section, respondents received the structured questionnaire for their responses based on the written scenario they had read. The third section contained the demographic questions which were designed to obtain information about the respondent's demographic characteristics. In the fourth section, respondents were given an optional open ended question in order to capture their opinion with regard to the given scenarios.

The survey questionnaire was distributed to various groups of subjects. Out of more than 70 groups of respondents approached for the study, 58 groups agreed to participate, totalling a response rate of 82%. Usable responses were received from only 57% of the participants as only 40 groups out of the original 70 groups completed the questionnaire. Some groups were not able to complete the survey questionnaire for a range of reasons. For example, one group realised that the survey process was time consuming and therefore they decided to stop without finishing. Another group had to leave before completing the questionnaire, as their shuttle bus started to board for their next destination.

However, if these response rates are compared with non-scenario-based quantitative studies in the service recovery area, the response rate and usable responses are satisfactory. For example, Kanousi (2005) achieved a response rate of 64%, Ashill, Carruthers and Krisjanous (2005) had 68.32% and Swanson and Kelley (2001b) had only 28%. Therefore, the response of 82% (58 out of 70) in this study was viewed as acceptable.

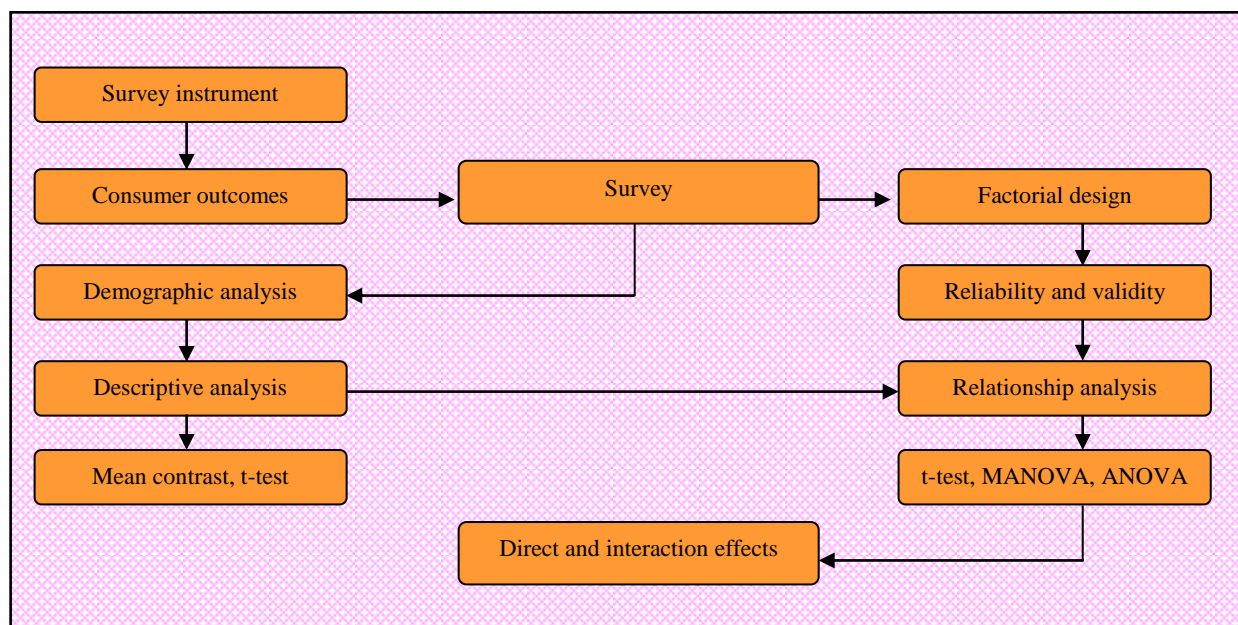
4.8 Methodology of data analysis

The data analysis is divided into two sections. The first section deals with the preliminary analysis whereas the second section includes the analysis of relationships amongst variables. Specifically, the first section includes manipulation checks, test of reliability, characteristics of the sample, and data distribution. The independent sample t-tests were used to check if the item's manipulations are correct. In order to

identify the dependency within each construct, inter-item correlation coefficients were calculated while reliability was tested by analysing for coefficient alpha.

With regard to the random experimental conditions, a small sample size (e.g., 30) is normally acceptable for reliable statistical results (Zikmund, 2000; Keppel, 1991; Keller and Warrack, 2005). However, a sample size of less than 30 can be acceptable if the survey setting is scenario-based (Boshoff, 1997) because it is possible to control extraneous variables in scenario-based experiments (Jaccard and Becker, 2002). Again, internal and statistical conclusion validity is more likely to be established if the variables are controlled (Malhotra, 2004). It has been suggested that the results of data analysis in scenario-based studies would not differ with lower sample size because of established statistical validity (Wirtz and Mattila, 2004). The sample size of 20 responses is widely accepted within the literature (Table 4-1, page 82). Therefore, a total of 640 responses with 320 for each failure type are assumed to be sufficient for the present study. Chapter Five explores these preliminary statistical analyses further.

Figure 4-4: Methodology of data analysis



(Source: Leal and Periera, 2003)

Chapter Six explores on the second section of data analysis which includes the identification relationship among variables. This analysis was intended to test the hypotheses proposed in Section 3.9 (page 64). The service failure scenarios and instruments refined in three phases (interview, realism test and pre-test) were used to

collect the survey data on which the relationship analysis was conducted. The survey questionnaire included 32 service failure scenarios accompanied by survey instrument of 22 items.

The relationship analysis in Chapter Six includes a series of statistical tests. The analysis identifies both the direct effects and the interaction effects of the independent variables. In regards to the method of statistical analysis, some scholars emphasised the need to undertake hierarchical analysis, that is, a bottom-up or top-down approach (e.g., Seels and Glasgow, 1990, p. 94) while other suggested for non-hierarchical analysis is appropriate (e.g., Beri, 2000). This researcher identified studies which undertook hierarchical analysis (for example, Cohen and Cohen, 1983; Kutner, 1985). They mentioned that a hierarchical analysis protects against Type I error and provides more powerful F-tests and t-tests. However, these studies did not incorporate scenario based experimental examinations.

Other scholars preferred a non-hierarchical analysis (e.g. Mattila and Wirtz, 2001). Those who used non-hierarchical analysis indicated their preference is because of the benefit of excluding lower-order effects (with non-hierarchical analysis) that are contained within retained higher-order effects.

This researcher did not find any previous study based on scenario manipulations that undertook hierarchical analysis. As explained in Section 5.4, scenario based studies have control over extraneous variables and therefore statistical errors (both higher order and lower order errors) in these experimental studies are minimal (Malhotra, 2004). Therefore, this study has adopted similar analytical approach to the scenario based studies (that is, non-hierarchical analysis) instead of hierarchical analysis.

Similarly, some researchers seem to suggest that a nested design could also be used to undertake a statistical analysis (e.g., Khattree and Naik, 1995). Again, this researcher did not find any studies involving scenario manipulations using this design. Rather, the extant literature uses an identical method to that used in this study.

Within this study, service recovery actions served as the independent variables and consumer outcomes served as the dependent variables. The relationships between two variables were tested with the independent group t-test in order to compare the group

means. Analysis of variance (ANOVA), in which F-ratios were calculated, was run to identify between-subject effects. These tests were used to investigate the difference in dependent variables with different levels of independent variables. Two way ANOVAs were run and means were compared to identify the main effects of the dependent variables. For relationships among independent variables, cell means were calculated and compared by performing MANOVAs.

The data analysis was undertaken with version 13.0 of the statistical tool 'SPSS for Windows'. One single data sheet was prepared in SPSS data editor for all variables including demographic characteristics, independent variables and dependent variables (Field, 2005). The output obtained from the data analysis was used for the interpretation of the results provided in Chapter Seven.

4.9 Summary

This chapter presented the methodology used in this thesis to achieve its research aims. Specifically, in Section 4.2 of this chapter, the research design of the present study was explained. Section 4.3 included a summary of scenario-based studies while Section 4.4 included a description of design process. An overview of the participants of this study and stages of this research was included in Section 4.4.1. The Sub-Sections of 4.4 also described the process of scenario development and the questionnaire preparation process. The activities included interviews with hotel managers for scenario refinement, scenario realism test using University students as respondents and the pre-test with hospitality staff. Section 4.5 discussed the sampling frame and Section 4.6 explained the process for gaining access to the participants. Section 4.7 explored the procedure of data collection, and Section 4.8 overviewed the method of statistical analysis. Finally Section 4.9 summarised the chapter. The next chapter reports the results of the preliminary data analysis.

Chapter Five

PRELIMINARY ANALYSIS

5.1 Introduction

Data analysis for this thesis was undertaken in two phases, firstly, the preliminary analysis and secondly, the relationship analysis. This chapter includes the former, that is, preliminary analysis, whilst the latter is covered within Chapter Six. This chapter has two main parts: the first part includes the analysis to establish the reliability of instrument; and the second part includes the analysis to determine whether the manipulations of variables made within this study were correct. This chapter also includes the analysis of the demographic characteristics of the participants. Suitable analytical techniques were used from the software 'SPSS for windows' for each activity. Coefficient alpha values were calculated to assess the reliability, independent sample t-tests were calculated for manipulation checks, and a cross-tabulation of data identified the demographic variations.

The chapter begins with Section 5.1, which introduces the chapter, followed by a discussion of the characteristics of the respondents in Section 5.2. Reliability of the scales is discussed in Section 5.3 while Section 5.4 provides a discussion of the validity of the scenario and questionnaire. The conclusion of the chapter is provided in Section 5.5.

5.2 Characteristics of the respondents

The survey was completed when 20 usable responses were received for each of the 32 scenarios, that is, when a total of 640 usable responses were received. Preliminary analysis was then undertaken to describe the demographic characteristics of the sample.

The demographic questions measuring consumption patterns and reservation methods of study participants showed that over one quarter (27.8%) of the participants had stayed in the hotel between 11-30 nights in the past year. Only 8.9% of these respondents had stayed in the same chain hotel. The highest number of respondents (277 out of 640 participants of the survey) reported that they stayed 2-5 nights in the same hotel chain (see Appendix C on page 278).

In regard to the purpose of visit, most of the participants were either holidaying or on a business trip. Some of the participants had two or more purpose of visit. For example, 5.3% of respondents were neither on business nor on holiday but on visit for some other purposes (see Appendix C on page 285).

With respect to who made the hotel booking, respondents indicated that booking was mainly done by contacting the hotel directly to make the reservation (60.8%) without involving a third party such as travel agent. Booking through agents was done by 18.3% while 6.4% of respondents had their reservations organised by their employers. The proportion of reservations made through both agent and employer was 11.3%. The combination of booking methods (other than agent and employer) such as employer and self, employer and other, and agent and employer was used by fewer than 1.0% of the respondents. Together, it appeared that the majority of visitors made their reservations independently.

In response to how the hotel was booked, 41% of the respondents indicated that they did the reservation online while 33.3% of the respondents did by telephone. The proportion of those who did not make reservation online and/or by telephone was 17.3%. Only 1.6% (that is, a total of 10 participants) had their reservation processed with more than one method. For example, less than 1% (a total of 4 participants) booked 'online and other', and nearly 1% (a total of 6 participants) booked by 'telephone and other'. Overall, online reservation was the main method of reservation among the study participants. The demographic variables of this study were also analysed separately for each type of service failure (Appendix C, page 286-287). The results indicated that the data was evenly distributed across failure types.

The analysis across gender showed that the sample was almost evenly distributed between male (48%) and female (52%) respondents (Appendix C, page 277). In order to compare the other demographic variables across gender, a cross tabulation method was employed. A cross tabulation is, "a statistical technique that describes two or more variables simultaneously and results in tables that reflect the joint distribution of two or more variables that have a limited number of categories or distinct values" (Malhotra, 2004, p.438). When respondents were asked whether they were on a business visit, only 12.8% of the females responded positively, while the percentage of males responding positively was 28.7% (Appendix C, page 277). On the other hand, 73% of female

visitors were on holidays compared to 52.3% of the male visitors. The lowest percentage of visitors was for “other than holiday and business” category (Female=6.3%; Male=5.4%). Some respondents were on both, a business trip and a holiday (Female=7.1%; Male=12.4%).

Similarly, cross tabulation of booking methods and genders showed that only 38% of females made their booking compared to 43% of males. Booking by telephone appeared to be more common among females (37.2%) than among males (25.7%). The percentage of bookings made other than telephone and online was lower for females (15.9%) as compared to males (19.8%). Only one percent of respondents tried to book using multiple methods (online, phone and other) (Appendix C, page 277).

Stay patterns of respondents in the hotel varied widely. The percentage who had stayed only one night over the past (one) year was 7% to 8%. While over one quarter of the respondents (Female=27.6%; Male=28.4%) had stayed more than 30 nights in the hotel over the past year. The percentage of respondents was highest for those who had stayed between two and five nights in the same chain hotel (Female=44.0%; Male=41.1%) and of these, only a few were new (first time visitors) to the hotel (Female=4.8%; Male=2.7%), all the others were revisiting (Appendix C, page 277).

When stay patterns were compared across age groups, the percentage of respondents was not distributed evenly (see Table 5-1). The results showed that in each age group only small percentages were new to the hotel chain: 2.5% (age ranging from 18 to 30 years) to 6.1% (age ranging from 31 to 40 years). A higher proportion in each age group had stayed from two nights to five nights: 45% in the age group of 18-30 years; 43.8% in the age group of 31-40 years; 44.1% in the age group of 41-50 years; 35.7% in the age group of 51-60 years; and 24.7% in the age group of ‘Above 60’ year.

Table 5-1: Number of nights stayed in same chain hotel (By age group)

Age Group	New to the chain hotel	One night only	2-5 nights	6-10 nights	11-30 nights	Nights>30	Total
18-30	2.5%	22.2%	45.0%	17.2%	9.8%	3.4%	100%
31-40	6.1%	13.2%	43.8%	16.0%	11.2%	9.7%	100%
41-50	3.8%	19.2%	44.1%	21.3%	10.2%	1.4%	100%
51-60	4.1%	20.8%	35.7%	26.2%	12.5%	.7%	100%
Above 60	4.7%	27.4%	24.7%	31.3%	11.9%	.0%	100%

When participants were grouped based on the type of scenarios (process failure scenario and outcome failure scenario), 165 female (51.6%) and 155 male (48.4%) respondents completed the questionnaire for outcome failure scenarios. Conversely, 168 females (52.5%) and 152 males (47.5%) completed the questionnaire after reading the process failure scenarios (Table 5-2). These results indicated a relatively evenly distributed sample in regard to the gender of respondents for both process failure and outcomes failure.

Table 5-2: Profile of respondents

		Process		Outcome	
		Number	%	Number	%
Gender	Female	168	52.5	165	51.6
	Male	152	47.5	155	48.4
	Total	320	100.0	320	100.0
Age Group	18-30	168	52.5	156	48.8
	31-40	59	18.4	78	24.4
	41-50	36	11.3	33	10.3
	51-60	32	10.0	42	13.1
	Above 60	25	7.8	11	3.4
	Total	320	100.0	320	100.0

Table 5-2 also shows the age groups that participated in this study for both process failure and outcome failure based scenarios. Respondents were grouped into: 18-30 years; 31-40 years; 41-50 years; 51-60 years and above 60 years. The sample distribution across the two types of service failure was similar. Out of 320 respondents in each type of failure scenario, the outcome failure scenario-based questionnaire was completed by 156 (48.8%) respondents from the age group of 18-30 years. This was followed by 78 (24.4%) respondents of age group (31-40 years). Similarly 168 (52.5%) respondents belonged to the age group of 18-30 years in process failure scenarios followed by 59 respondents (18.4%) of age the group 31-40 years. The age group 'Above 60 years' had least participation. Two age groups: 41-50 years and 51-60 years, had almost the same percentage of participation, which was 36 (11.3%) respondents and 32 (10.0%) respondents respectively (Table 5-2). These numbers indicate that the majority of respondents were in the age group of 18-30 years.

In regards to the participants' countries of residence, the majority of respondents were from Australia and New Zealand (40.3%), and from Europe (44.2%). Only 8.3% of respondents were from the USA and Canada. The lowest percentage of respondents was

for those from Asia (2.3%). There were more participants from “other countries” than from Asia (Table 5-3).

Table 5-3: Respondents’ countries of residence

Country of Residence	Process Failure		Outcome Failure		Total	
	Number	%	Number	%	Number	%
Australia/NZ	134	41.9	124	38.8	258	40.3
Europe	141	44.1	142	44.4	283	44.2
USA/Canada	24	7.5	29	9.1	53	8.3
Asia	6	1.9	9	2.8	15	2.3
Other	15	4.7	16	5.0	31	4.8
Total	320	100.0	320	100.0	640	100.0

5.3 Reliability of scales

Reliability is “the degree to which measures are free from random error and therefore yield consistent results” (Zikmund, 2000, p.375). Scale reliability, that is, when mean scales are reliable, is important because it allows the researcher to identify the acceptability and generalisability of the results (Bamford and Xystouri, 2005; Malhotra, 2004). Reliability checks therefore ensures whether the data will provide the consistent analytical results (Leal and Pereira, 2003; Zikmund, 2000). The most popular method of determining the reliability of a component construct is by computation of coefficient alpha. It is denoted with “ α ” and ranges from 0.00 to 1.00, where 1.0 indicates very high reliability.

In regard to the acceptable values of alpha, there are various suggestions within the literature as to what the minimum acceptable level should be. Malhotra (2004) suggested that the value $\alpha = .60$ is statistically acceptable for construct reliability. Items showing less than .60 for the value of coefficient alpha should be considered with caution (Zikmund, 2000). Less than the threshold value of “ α ” (i.e., .60) is undesirable and researchers need to modify scales or remove items to improve their reliability (Kirk, 1995). In order to identify the item (or items) from a group of items contributing to a low reliability, researchers can calculate ‘coefficient alpha if item deleted’ (Jaccard and Becker, 2002). These guidelines are adopted within this thesis to assess the

reliability of scale (Table 5-4). The table shows the coefficient of alpha values of the relevant group of items used for measuring each dependent variable in the final survey¹⁰. Items contributing low reliability are written in italics, and corresponding coefficient alpha values are inserted in parenthesis within Table 5-4.

The coefficient alpha values for all groups of items measuring the dependent variables of this study were higher than the minimum recommended value of coefficient alpha (i.e., .60) except for the measure “switching intent”. The literature has suggested that the reliability of a scale needs to be established for items measuring variables in order to obtain reliable research outcomes (Zikmund, 2000). In order to do so, that is, to establish the item reliability, items contributing to low coefficient alpha values need to be identified and removed (Malhotra, 2004). Locating the items with low reliability was possible with SPSS software. For this purpose, SPSS output of reliability coefficient alpha ‘if item deleted’ was computed. When coefficient alpha for the variable, “switching intent” was measured on overall data (N=640), only item 1, ‘*I would not look for another hotel to replace the present hotel*’ appeared to contribute to the low reliability in overall data (α , i.e., $\alpha=.632$ if item deleted) (Appendix C, page 279).

Table 5-4: Coefficient alpha for group of items measuring each construct

Construct	Item	Coefficient Alpha*
Expectation update	<ol style="list-style-type: none"> 1. I will expect better service the next time I go to this hotel. 2. I expect that I will receive compensation when I encounter a service problem. 3. I expect this hotel to do whatever it takes to guarantee my satisfaction. 	0.819
Complaint motive	<ol style="list-style-type: none"> 1. Given the circumstances, I would complain to the frontline employees. 2. Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service. 3. <i>Taking everything into consideration, I would return home and complain to the firm by telephone.</i> 4. Overall, if this had happened to me, I would be very likely to complain to the management. 	0.702** (0.624 without deleting item 3)

*also known as Cronbach’s alpha. **scale reliability after deleting items 3.

¹⁰ The number of responses in pre-test was not sufficient for reliability assessment. Therefore this assessment was undertaken after obtaining the survey data.

Table 5-4: Coefficient alpha for group of items measuring each construct (Continued)

Construct	Item	Coefficient Alpha*
Overall satisfaction	<ol style="list-style-type: none"> 1. How satisfied are you overall with the quality of service on this particular occasion? 2. How satisfied would you be with the hotel's handling of the problem? 	0.768
WoM referral	<ol style="list-style-type: none"> 1. I would be likely to recommend this hotel to others. 2. I would be likely to convince my friends and relatives not to stay in this hotel. 3. I would warn others about using this hotel. 	0.652
Switching intent	<ol style="list-style-type: none"> 1. <i>I would not look for another hotel to replace the present hotel</i> 2. Considering all things, I would waste a lot of time if I change this hotel. 3. I will lose a friendly and comfortable relationship if I change. 4. If I change, there is a risk the new hotel won't be as good as this hotel. 5. <i>All hotels are much the same, so it would not really matter if I change hotel.</i> 	0.596* 0.632** 0.625***
Repurchase intent	<ol style="list-style-type: none"> 1. Given your experience, would you use this hotel again in the future? 2. Would you use this hotel again if you had a choice? 3. I would consider this company my first choice in the service category. 	0.853
Enhanced loyalty	<ol style="list-style-type: none"> 1. I wish to retain my relationship with this hotel. 2. The relationship with this hotel is important for me to maintain. 	0.794

*scale reliability of without deleting items. **scale reliability after deleting items 1.

***scale reliability after deleting items 1 and 5.

Although all subjects were given the same set of questions and the reliability of the overall data was established, it was still important to note that the respondents of this study were exposed to two different failure types. These failure types were manipulated within the described scenarios, which the respondents were required to read before completing the questionnaire. With two distinct experimental conditions of failure (process failure and outcome failure), this researcher realised that the possibility of differential responses across types of failure cannot be ignored. Zikmund (2000) suggested that researchers should conduct “split-half reliability” tests under such

circumstances in order to test the instrument reliability. Split half reliability assessment is a test for coefficient alpha values for each half of the responses taken separately.

Table 5-5 includes split-half reliability when treatment conditions were grouped into process and outcome failures. Items contributing low reliability in Table 5-4 were excluded for this test. This grouping represents split half reliability because the data set was divided into two groups and the reliability of each group was assessed separately. The instrument was valid as the coefficient alpha value was higher than .60 (which is the minimum level required for instrument reliability) for all groups of items. The removal of the item, *‘All hotels are much the same, so it would not really matter if I change hotel,’* measuring the variable “switching intent” substantially improved the reliability of the data set for the each failure type: process failure ($\alpha=0.60$); and outcome failure ($\alpha=0.66$) (see Table 5-5 and Appendix C, page 279). As such the data related to both items 1 and 5 was not used for further analysis. Similarly, computing “item if deleted” for the variable “complaint motive” suggested the reliability of the data was higher without item 3, *“Taking everything into consideration, I would return home and complain to the firm by telephone”* in both process failure ($\alpha=0.68$) and outcome failure ($\alpha=0.72$). However, the reliability for this item remained above 0.60 without deleting it and therefore this item was not removed. Together, these adjustments ensured that only items with established reliability across both failure types were considered for further examination.

Table 5-5: Instrument reliability for each type of failure

Variable	Coefficient alpha		
	Overall failure N=640	Process failure N=320	Outcome failure N=320
Repurchase intent	.85	.81	.87
Expectation update	.81	.65	.89
Complaint motive	.70	.68	.72
Overall satisfaction	.76	.79	.73
Switching intent	.62	.60	.66
Enhanced loyalty	.79	.75	.84
WoM referral	.65	.60	.68

5.4 Validity of scenario and items of measurement

Although it is possible to assess the reliability of each item within the instrument by computing coefficient alpha values, this technique does not assess the ‘cause and effect’ in an experiment. That is, reliability assessment does not necessarily identify underlying effects caused by any extraneous variable. The variables left uncontrolled or ignored by researchers assuming that they will not have any effect on the treatment conditions are the extraneous variables (Jaccard and Becker, 2002). In order to identify the effect of extraneous variables, validity assessment is essential (Zikmund, 2000). In order to do so, both experimental validity and validity of measures need to be established (Malhotra (2004). Both experimental validity and validity of measures are discussed in the following sections.

5.4.1 Theoretical and procedural support to validity

5.4.1.1 Experimental validity

According to Keppel (1991), there are two fundamental issues that are related to the experimental validity. These are internal and external validity. Zikmund (2000, p.323) defined internal validity as “the ability of an experiment to answer the questions of whether an experimental treatment was the sole cause of changes in a dependent variable”. An experiment will be internally valid only if the observed values can be unhesitatingly attributed to the experimental treatment conditions. This can be achieved by overcoming the effects of extraneous variables. The effects of extraneous variables include history effect, cohort effect, maturation effect, selection effect and mortality effect (Jaccard and Becker, 2002). Specifically these are as follows: the history effect comes into play when a difference in response between first and second measurement occurs; cohort effect is the change in the dependent variable due to a difference in historical situations of participants of the study; maturation effect is caused by a change in the time period between two observations; selection effect appears when respondents of comparison groups are not identical; and mortality effect is a sample bias resulting from the withdrawal of subjects from the study (Malhotra, 2004).

With regard to validity, according to Hair et al. (2005), a researcher should ensure that both internal validity and external validity of an experiment are maintained. In regard to internal validity in scenario-based study, several authors (e.g., Boshoff and Leong,

1998; Dabholkar and Overby, 2005; Wirtz and Mattila, 2004) have suggested that a scenario permits complete control over manipulations.

For example, the effects of extraneous variables are controlled in scenario-based studies because respondents are not required to recall their past experience (Hocutt et al., 2006). Scenarios enhance variability in responses as they can be effectively manipulated, and problems involving individual differences in responses and personal circumstances in the research context can be reduced with scenarios (Boshoff and Leong, 1998). The scenario method enhances internal and statistical conclusion validity by controlling extraneous and manipulated variables, and by reducing random noise in the dependent variables with a standardized setting for all subjects (Ruyter and Wetzels, 2000). The scenario method has shown to have ecological validity in service encounter research; and the scenario method is most successful when there is a high congruency between the respondents' real life experiences and the experimental scenarios they are required to imagine (Dabholkar, 1996).

Unlike internal validity, external validity is, "the ability of an experiment to generalise, beyond the experimental data, to other subjects or groups in the population under study" (Zikmund, 2000, p.325). Although the external validity discussed earlier in Section 5.4.1 is generally established in experimental studies, there could be potential limitations in regard to the generalisation of the results of experimental studies with actual incidents (Maxham and Netemeyer, 2002). For example, it is possible that real life experiences are different from experimental settings (Hocutt et al, 2006; Wirtz and Mattila, 2004). This limitation of experimental study therefore cannot be ignored (Zikmund, 2000). Thus, researchers conducting experimental studies always suggest replicating their studies in real world incidents in order to obtain more rigorous and generalised results.

5.4.1.2 Validity of measures

A validity of a measure indicates that it is able to produce the results that it was supposed to do so (Jaccard and Becker, 2002). Therefore, researchers need to be vigilant to the validity which exists in its many types (Hair et al. 2005; Zikmund, 2000). They are: content validity; face validity; statistical conclusion validity; and convergent validity. There are varying suggestions for establishing these external validities. If the

content validity is of concern, professional experts should be consulted (Boshoff, 1997). Content validity is a, “subjective approval from the practitioners that it appears to reflect what it purports to measure” (Zikmund, 2000). Within the present study, both the scenarios and the questionnaire were developed in close consultation with practitioners and thus this issue was addressed (Section 4.4, page 83).

Subsequent to the consultation with the industry practitioners, the scenarios were also revised and tested with hospitality students as respondents to determine if they resemble real world incidents. This method has been used in previous studies (e.g., Hocutt et al., 2006; Maxham and Netemeyer, 2003; Smith et al., 1999). The students were asked to rate the scenario for its realism and the test average scored was 8.2 on a 9-point scale (1 being not at all likely; 9 being extremely likely) (Appendix A, page 261). This supports the fact that these hypothetically described situations could happen in real life (Wirtz and Mattila, 2004).

Face validity should also be established in experimental studies (Zikmund, 2000). Face validity is concerned with the extent to which the responses look like they are measuring what they are supposed to measure (Jaccard and Becker, 2002). Within this study, a pre-test was undertaken with hospitality staff to assess face validity (Section 4.4).

Statistical conclusion validity is also a concern in experimental studies because it relates to the mislabelling of a degree of uncertainty in an estimate of a treatment effect (Malhotra, 2004). Values obtained from statistical tests within this study were compared with the recommended values. For example, the ANOVAs, MANOVAs and t-tests were conducted with a 95% confidence level; and reliability of the constructs were compared with the recommended value of coefficient alpha (i.e., $\alpha \geq .60$ or above).

Lastly, convergent validity was important in the present study because the methods of developing the scenario, items and scales were adopted from previous studies. Convergent validity can be analysed by conducting and evaluating inter-item correlation (Jaccard and Becker, 2002). Inter-item correlation is the strength of the relation between two items. Correlation analysis is particularly important when researchers intend to identify the strength of a relationship between two items (Keppel, 1991; Keller and Warrack, 2005). According to Zikmund (2000, p.786), a correlation

coefficient is, “a statistical measure of the co-variation or association between two variables” and it is the most widely used technique to summarise the strength of association between variables (Malhotra, 2004). The correlation coefficient is expressed as “ r ”. It varies from ‘perfectly correlated’ to ‘not correlated at all’ (Keppel, 1991). When both items vary together, they are correlated with each other (Jaccard and Becker, 2002; Kirk, 1995).

The value of a correlation coefficient ranges from +1 to -1; where +1 indicates two items are perfectly correlated with each other (Jaccard and Becker, 2002). The positive sign indicates the items move in the same direction with each other. Conversely, the negative sign indicates the items are negatively correlated. These relationships are also called linear (or straight line) positive (or negative) relationships because if scatter diagrams of the perfect correlations are drawn they appear as a straight line (Zikmund, 2000).

There appears to be an inconsistency in researchers’ views about the acceptable value of a correlation coefficient in generalising the research outcomes. For example, Malhotra (2004) indicated that when $r > 0$, there exists a relationship between items which cannot be ignored. However, Kirk (1995) suggested that only the value that is higher than +0.5 and less than -0.5 should be considered as an indication of significant relationship between items. Again, Zikmund (2000) indicated that a correlation coefficient of less than +0.5 cannot be ignored as it shows some degree of correlation among items.

In regards to the need of correlation tests, first, it has been suggested that correlation between items could vary with experimental conditions (Jaccard and Becker, 2002) and therefore an overall correlation may not necessarily reflect the real strength of relationship between items (Malhotra, 2004). Second, researchers gain control over the factors causing poor validity in experimental conditions (Zikmund, 2000). These two reasons are possibly responsible for why some past research ignored the validity tests in scenario-based studies. Those who ignored the validity tests seem to agree that each scenario could represent a completely different condition and thus the responses based on different scenarios may not be combined for correlation analysis (e.g., Mattila and Wirtz, 2006).

However, within the present study, it is possible to group responses for each independent variable. For example, total data can be grouped for each failure type into two groups and then correlation between items can be identified separately for each group.

The correlation analysis in the present study was conducted firstly for an indication of overall inter-item correlation among total responses and secondly to see the inter-item correlation in each failure type. In addition, the strength of the relationship among the items measuring each construct was also analysed (Appendix C, page 282-283). The SPSS outputs of correlation analysis are presented in correlation matrix tables (Appendix C, page 288-292). A correlation matrix is “the standard form of reporting correlational results” (Zikmund, 2000, p.676).

The correlation analysis for each item comparing each construct showed similar results to the reliability analysis discussed in Section 5.3. The correlation of the measure ‘switching intent’ was substantially improved in overall failure and between types of failure when two items were deleted (Table 5-4, page 121; and Appendix C, page 277). Similarly, items measuring complaint motive had strong positive correlation except one item, “*Taking everything into consideration, I would return home and complain to the firm by telephone*”, which had weak correlation ($r=0.20$, $r=0.30$ and $r=0.28$ respectively with the other three items measuring same variable).

For further assessment of strength of association of this item (i.e., *Taking everything into consideration, I would return home and complain to the firm by telephone*) with other items measuring the same variable, survey responses were grouped on the basis of independent variables i.e., seven consumer outcomes) and the corresponding strength of relationships were analysed. There was a weak correlation across the group of service recovery actions: speed ($r=0.14$), apology ($r=0.31$), empowerment ($r=0.18$) and compensation ($r=0.19$). In order to maintain the consistency in the data, this item (mentioned in this paragraph and previous paragraph) was removed from the list and was not used for any further analysis (also see Table 5-4, page 121).

Similarly, the item “*I would be likely to recommend this hotel to others*” measuring WoM intention also had weak positive correlation when compared in the item groups based on speed ($r=.44$), apology ($r=.42$), empowerment ($r=.48$) and compensation

($r=.44$). If inter-item correlation is very weak (e.g., $r=0.30$ or less), there could be difficulty in generalising the results of the research (Malhotra, 2004). However, a desirable value of (r) is 0.50 and therefore, correlation coefficients close to the desirable value (e.g., $r=.45$) cannot be ignored (Zikmund, 2000). Therefore, this item was not excluded in further analysis. Instead, the discussion on its limitation is included in Section 8.5.

5.4.2 Analytical support to the validity of measures

In addition to the theoretical and procedural support, validity of measures of this research has also been supported analytically. The analysis included checking whether the data distribution is normal, and whether the manipulations are correct. The following two sub-sections explore each of these issues.

5.4.2.1 Distribution and Normality

In order to identify whether the data exhibited multivariate normality, the distribution of data needed to be assessed (Jaccard and Becker, 2002; Kirk, 1995). Since the service recovery actions were manipulated as independent variables within this study, the assessment of the data distribution was needed to generalise the research outcomes. There are various methods to identify data distribution (Zikmund, 2000). The commonly used method is the measurement of kurtosis and skewness (Malhotra, 2004). This is because skewness and kurtosis can identify whether the majority of data is distributed close to the normal distribution. Kurtosis and skewness are preferred because the distribution of data is never exactly normal in reality (Kirk, 1995).

The distribution statistics characterise the shape and symmetry of the data distribution. Skewness is, “a characteristic of a distribution that assesses the symmetry about the mean” (Malhotra, 2004, p.432). Kurtosis is, “a measure of the relative peakness (or flatness) of the curve defined by the frequency distribution” (Malhotra, 2004, p.433). Although the tendency of skewness can deviate largely in one direction, rather than the other, from the mean, they are approximately normally distributed if the values are less than 2. A negative or positive value determines direction of skewness, while a value more than 1 indicates the distribution is flatter than normal (Malhotra, 2004).

Since the responses vary with independent variables, distribution patterns of data used in this study were assessed separately within type and magnitude of independent variables. This includes, apology (not offered versus offered), response speed (low versus high), compensation (refund versus replacement) and empowerment (not empowered versus empowered). The SPSS output of the analysis is included in Appendix C (page 280).

The values for skewness and kurtosis of the survey data showed a wide range of variation. The minimum value of skewness among organisational actions appeared when employees were empowered, for example, the skewness of repurchase intent (-.076), expectation update (-.815), overall satisfaction (-.249), loyalty (.045) and WoM referral (-.460), whereas the skewness of complaint motive when the employee was not empowered was -.306. Similarly, the minimum skewness of switching intentions was when the refund was offered as compensation (-.143). Values of kurtosis were minimum for repurchase intentions (-.279) and loyalty (-.386) when employees were not empowered whereas complaint motive had a minimum value of kurtosis (-.408) when employees were empowered. Likewise, kurtosis for overall satisfaction (-.454) and WoM referrals (.223) was minimum when a refund was offered as compensation. Switching intentions (.120) and expectation updates (.226), had minimum value of kurtosis when replacement of service was done.

Values of positive skewness were higher for repurchase intent (.377), expectation update (.007), overall satisfaction (.428), loyalty (.284) and WoM referral (.562) when the employee was not empowered whereas, skewness values were higher with empowerment for complaint motive (.487) and switching intent (.277). Similar variations were observed when recovery attempts were made through employee actions. These values were within the range of -1 to +1 despite the wider variation. Altogether, these results suggest that the data distribution within this study was within acceptable limits approximating normal.

5.4.2.2 Manipulation Checks

In addition to the assessment of reliability, validity and distribution of data, it should also be ascertained in a scenario-based study whether manipulation of variables within the scenario are correct (Wirtz and Mattila, 2004). That is, the independent variable

should have some degree of effect on the dependent variable. In order to achieve this, a range of manipulation checks were performed. Firstly, manipulation checks were performed by conducting multivariate analysis of the overall data. Since service recovery actions served as the independent variable within this study, a manipulation check was possible to investigate whether there was any difference in consumer outcomes (i.e., dependent variables) with service recovery actions. The effects are summarised in Table 5-6. The independent variables are speed, empowerment, apology and compensation.

The overall (multivariate) effects of each independent variable on the dependent variables were statistically significant. Specifically, speed (Wilks'=.677, $F(7, 10549) = 717.51$, $p < .01$), apology (Wilks'=.735, $F(7, 10549) = 544.41$, $p < .01$), empowerment (Wilks'=.893, $F(7, 10549) = 181.13$, $p < .01$), and compensation (Wilks'=.967, $F(7, 10549) = 51.39$, $p < .01$) had significant effects on the dependent variables. That is, there were differences in the dependent variables with varying service recovery action. These changes indicated that the manipulations based on existing studies, which suggested the importance of service recovery strategy, were correct within this study.

Table 5-6: Multivariate effects of service recovery actions

Recovery actions	¹ Wilks'	² F	³ d.f.	⁴ Sig.
Speed	.677	717.51	7	.000
Empowerment	.893	181.13	7	.000
Apology	.735	544.41	7	.000
Compensation	.967	51.39	7	.000
Total			10549	

¹Wilks' lambda (also abbreviated as λ while presenting the results of statistical analysis).

²F-ratio test, ³Degrees of freedom, ⁴Level of significance.

Secondly, the study framework of this thesis incorporated the guidelines of existing studies which suggested: a) the possibility of the existence of process failure and of outcomes failure; and if that is so, b) the recovery strategy could differ based on whether the failure experienced was process failure or outcome failure. Thus, another manipulation check was possible by comparing the differences, if any, in dependent variables between process failure and outcome failure. In order to explore this, the mean differences in the seven consumer outcomes across the two failure types were examined. Only those scenarios, which included the description of service failure but

no service recovery efforts, were selected for this analysis (as the intention of this test was to examine the appropriate manipulation of the existence of process failure and outcome failure within the scenario).

Seven consumer outcomes served as the dependent variables within this study including repurchase intent, expectation update, complaint motive, overall satisfaction, switching intent, enhanced loyalty and WoM referral. The significant differences were examined by running ANOVAs while the direction of mean differences were analysed with independent sample t-tests. Table 5-7 reports the ANOVA results when failure type was kept as the grouping variable. As can be seen, for all seven consumer outcomes there was a statistically significant difference between process failure and outcome failure indicting the existence of typology of failure. This also conforms that the manipulations within the scenarios were correct.

Table 5-7: ANOVA Results with Failure type as a Grouping Variable

Dependent variable	Sum of Squares	d.f.¹	Mean Square	F²	Sig.³
Repurchase intent	36.5	1	28.04	28.0	.000
Expectation update	3064.0	1	35.02	3283.1	.000
Complaint motive	1377.2	1	250.78	1250.4	.000
Overall satisfaction	9.23	1	.21	5.12	.024
Switching intent	1681.7	1	130.98	143.0	.000
Enhanced loyalty	67.8	1	38.49	45.1	.000
WoM referral	11.44	1	14.15	8.72	.003

Key: ¹degrees of freedom; ²F-ratio; ³level of significance.

5.5 Conclusion

This chapter has focused on the examination of demographic characteristics of respondents and preliminary analysis of the data obtained from the survey. Specifically, Section 5.1 introduced the chapter and this was followed by a discussion of the demographic variables in Section 5.2. Assessment of the data reliability was discussed in Section 5.3 while validity was explored in Section 5.4. Within the discussion on validity, Section 5.4.1 explored theoretical and procedural support for the validity, while Section 5.4.2 focused on the analysis to examine the validity of measures.

Normality and distribution of the data were explored in Section 5.4.2.1 for analytical support for validity, whereas Section 5.4.2.2 explained the process of manipulation checks. The statistical tests performed and outlined within this chapter included the calculations of coefficient alpha, correlation coefficients, kurtosis and skewness of the data, and multivariate tests and mean comparisons. Section 5.5 concluded this chapter.

In order to carryout preliminary analysis of data, researchers need to pre-test the instrument. However, the analysis of pre-test data is not possible for scenario-based studies due to the small sample size for each pre-tested scenario. Therefore, preliminary tests of this thesis were conducted on the data of final survey.

The following Chapter Six continues the data analysis which focuses on examining the relationships among variables in order to test the hypotheses proposed in Section 3.9. Thus, the relationship analysis discussed in the next chapter, as explained in Section 4.8 (page 112) will contribute to achievement of the research aims of this thesis which were explained in Section 1.6 (page 13).

Chapter Six

ANALYSIS TO TEST THE HYPOTHESES

6.1 Introduction

This chapter is devoted to testing the hypotheses proposed in Section 3.9 on page 64. After the introduction to the chapter in this section, a brief description of the statistical test procedures are explained in Section 6.2 and statistical terms used in the chapter are explained in section 6.3. The following six sections explore the testing of hypotheses.

Firstly, Section 6.4 includes the tests to identify whether there are direct effects of a service recovery action on the seven consumer outcomes. The direct effect of a variable refers to its impact on dependent variables when other possible independent variables are controlled (Hair et al., 2005). The dependent variables, on which the effects of service recovery actions are to be examined, are seven consumer outcomes as proposed in the conceptual framework in Section 3.6 (page 58). The effects of both organisational and employee service recovery actions are examined within this section.

Secondly, Section 6.5 examines the moderating effects of one service recovery action on another service recovery action (that is, interaction between two service recovery actions). Specifically, this section relates to the identification of two-way interaction effects of service recovery actions on consumer outcomes. A two-way interaction effect of variables is the variation in the magnitude or level of dependent variables when two independent variables are introduced and their combined effect is identified (Jaccard and Becker, 2002, Baron and Kenny, 1986). The consumer outcomes to be explored within this thesis are shown in the framework of this study (Section 3.6, page 58). Thirdly, Section 6.6 examines the three-way interaction effects of service recovery actions on consumer outcomes.

Finally, the effects of independent variables are again analysed after splitting the single data set into two groups by “failure type” as the grouping variable. This enables the research to analyse and compare the effects of variables across different groups

(Malhotra, 2004). Specifically, Section 6.7 includes the direct effect of service recovery actions on both a process and an outcome failure situation, Section 6.8 includes moderating effects and Section 6.9 includes three-way interaction effects on consumer outcomes. Section 6.10 concludes Chapter Six.

This chapter therefore explores the results of statistical tests in order to achieve the aims of this study listed in Section 1.6 of Chapter One (page 13). To achieve these aims, this chapter attempts to determine the solution to the research questions listed in Section 1.7 (page 11) by testing the hypotheses proposed in Section 3.9 (page 64). The analysis to test the hypotheses was carried out by using suitable statistical methods and so the following section overviews the statistical analysis used within this thesis and the corresponding tests to identify the relationship between variables.

6.2 Procedures of statistical tests in relationship analysis

The process of obtaining data for statistical analysis was included in Chapter Three which involved the preparation, refining and finalising the draft of the survey instrument and modification of the scenarios by discussion with hotel managers. The draft was then used for the pre-test. Data needed for the analysis was obtained from the survey. Data analysis was completed in two phases. The first phase included the preliminary analysis to establish reliability and validity of the data as well as the normality of the data distribution. This phase of data analysis was discussed in the previous chapter. The second phase of data analysis, which includes relationship analysis, is the focus of this chapter.

Data obtained from the survey was entered and a single data-sheet was prepared within the statistical package “SPSS 13.0 for Windows”. The reverse coded items were adjusted within the data-sheet. Reverse coding becomes necessary if an item for measuring a construct is anchored in opposite order compared to other items measuring the same construct. Reverse coding includes the interchange of anchors associated with an item. Specifically, data of two items measuring overall satisfaction anchored as 1 (Very satisfied) to 7 (Very dissatisfied) in the survey questionnaire of this study were reverse coded. The new data set then represented the anchors 1 (Very dissatisfied) to 7 (Very satisfied), which is the reverse of the anchors used in the original survey

questionnaire. Similarly, items measuring WoM referral (one item), repurchase intent (three items) and enhanced loyalty (two items) were also reverse-coded.

All investigations carried out in this study were based on quantitative methods of data analysis. The statistical package “SPSS 13.0 for Windows” was used for examining the relationship analysis. Statistical tests such as the tests of reliability and validity of the instrument were carried out with this package. The relationship analysis was possible with the SPSS package by conducting independent group t-tests, correlation coefficient calculations, mean contrasts, and one-way, two-way and three-way between-subject analysis of variance. Between-subject analysis includes the comparison of different groups. This is different from within-subject group analysis, as the same group of subjects respond in different settings in the case of the lateral method (Hair et al., 2005). Further, the SPSS package was also used to investigate the relationships by analysing both univariate and multivariate effects of independent variables on dependent variables. Univariate analysis identifies whether there is any effect of an independent variable on one single dependent variable, whereas the effects of an independent variable on a group of dependent variables is identified with the multivariate analysis. More discussion on statistical terms and abbreviations used in the subsequent sections is included in the next section (Section 6.3). Later sections then focus on the results of statistical analysis of this study.

6.3 Interpretation of statistical terms and abbreviations

The statistical analysis of this study includes parametric tests. Parametric tests are appropriate for the data used in this study because they are interval scaled (Zikmund, 2000). In Section 5.4 (page 124), the results show that the data of this study are normally distributed and therefore it was possible to make assumptions that the sampling distribution was normal. In a distribution free data (i.e., data without normal distribution), parametric tests are not recommended (Morrison, 2005). Researchers prefer parametric tests because, “parametric statistics are more refined and powerful than current nonparametric methods” (Jaccard and Becker, 2002, p.252).

The statistical tests within this thesis included firstly, the independent sample t-test (also called “t” statistics). This test assesses the statistical significance between two sample means. Statistical significance is the level of power which tells the probability

in finding the differences if they actually exist. The difference is compared between two independent sample means and therefore it is also called an independent sample t-test. This test identifies the difference between groups by computing t-values, p-values, and mean differences (Zikmund, 2000). The t-value is calculated by obtaining the ratio of the difference between sample means to their standard error. The standard error is an estimation of the difference between means to be expected because of sampling error.

If the t-value is significantly large, then statistically it can be said that the difference was not due to sampling variability, but represents a true difference in the mean value. The p-value represents the significance of the mean values and whether the t-value is significantly large. The conventional guidelines for p-value suggest that a significant difference exists when p-values are at most .05 (Malhotra, 2004). The p-value gives the probability of not having a significant difference (in t-test, the difference in mean values). For example, $p=.01$ means the possibility (probability) of not having any difference is only 1%. In other words, $p=.01$ indicates that the possibility of difference in the mean responses of two groups is 99%. In addition, the t-test can also assess the direction of difference in mean values. The positive t-value indicates that the value of the first sample mean is higher than the second sample mean (e.g., $t=.01$) while the negative t-value (e.g., $t=-.01$) indicates the reverse situation (Jaccard and Becker, 2002).

While presenting p-values, some researchers use “<” and “>” to indicate the level of significance of insignificant (e.g., Yen et. al., 2004). For example, $p<.01$ indicates that the statistical difference is significance and the possibility of not being a significant effect is less than 1%. Others prefer to use the actual p-value in presenting the statistical significance as $p=.01$ (e.g., Galban *et. al.* (2000). Some researchers also use both notations “ \leq ” which means the difference was equal or less than the value included (e.g., Brief et. al., 1988).

The second type of test used within this thesis is analysis of variance (represented as ANOVA hereafter). As indicated in the above paragraph, the t-test can identify the difference between two sample means, say M_1 and M_2 . However if there are more groups to be compared, say M_1 , M_2 and M_3 , the computation of the mean difference among all three groups can be complicated. That is, a researcher interested in finding the difference in all possible groups will have to compare each of the pairs, that is, M_1

versus M_2 , M_2 versus M_3 , and M_3 versus M_1 . The combinations amongst groups keep multiplying with each additional group of treatment for the t-test (Kirk, 1995).

To avoid this complication, ANOVA is regarded as a useful technique (Hair et al. 2005). An ANOVA makes multiple comparisons of treatment groups in a single test by identifying whether there is any difference in mean values. Also, the possibility of multiple comparisons makes the ANOVA technique more useful than structural equation modelling and regression analysis in experimental examinations (Jaccard and Becker, 2002; Morrison, 2005). Unlike the calculation of ratio of mean differences in the t-test, ANOVAs calculate the ratio of multiple independent estimates of the variance for the dependent variable. This ratio is called F-statistics (unlike t-statistic in mean difference ratio). An estimate of the variance is the square of the mean (not just a mean as in the t-test) of each group. If the mean square is calculated within the treatment groups, it is called within-group estimate of variance, and if it is calculated between the treatment groups, it is called between-group estimate of variance (Jaccard and Becker, 2002). The representation of statistical significance in ANOVAs is identical to the t-test as it is represented using p-values (Morrison, 2005).

Along with p-values and F-values, other parameters such as degree of freedom and total number of treatments are also required while presenting the test results of the ANOVAs. Degrees of freedom represents the number of treatments (or groups compared) less one. For example, if two groups are compared to identify whether any statistically significant difference exists, the degree of freedom is 1 (i.e., $2-1$). Thus, degrees of freedom are generally represented as d.f. = $n-1$, where 'n' is the number of groups to be compared.

Thirdly, this thesis also includes data analysis using multivariate analysis of variance (MANOVA). Data analysis with t-tests and ANOVAs identify the equality of only one dependent variable mean across groups (Morrison, 2005). However, if a researcher is interested in identifying mean differences among multiple dependent variables across groups, MANOVA is required. Therefore a researcher actually has two variates in the MANOVA test: the dependent variable; and the multiple independent variables. Within the MANOVA tests, the variates optimally combine the multiple dependent measures into a single value. Since the ANOVA tests only compare the variance within one

dependent variable, it is also referred to as univariate analysis while MANOVA tests are referred as multivariate analysis (Hair et al., 2005).

In relation to MANOVA test, researchers (e.g. Kirk, 1995) suggest that independent variables are sometimes very highly correlated. If this is the case, it can distort the results of obtained from MANOVA. To ensure that high correlations do not exist amongst dependent variables of this study, correlations coefficients amongst the dependent variables of this study were calculated by using software SPSS for windows (See Table 6-1 below). The results indicated that the correlations coefficients were below .74 (that is $r < .74$) which has been identified by Tabachnick and Fidell (1983) as being acceptable for running MANOVAs for the purpose of analysing relationship between variables. This is consistent with Hair et al. (2005) who suggested running MANOVAs if there are moderate correlations between dependent variables.

Table 6-1: Correlation Matrix of independent Variables (outcome variable)

		Ex Update	Com Motive	Ovr Satis	WoM	Rep Intent	Loyalty	Swt Intent
ExUpdate	Pearson Correlation	1	.618	.207	.289	.238	.174	-.305
	Sig. (2-tailed)		.000	.000	.000	.000	.002	.000
	N	320	320	320	320	320	320	320
ComMotive	Pearson Correlation	.618	1	.176	.257	.235	.133	-.303
	Sig. (2-tailed)	.000		.002	.000	.000	.018	.000
	N	320	320	320	320	320	320	320
OvrSatis	Pearson Correlation	.207	.176	1	.369	.518	.480	-.038
	Sig. (2-tailed)	.000	.002		.000	.000	.000	.501
	N	320	320	320	320	320	320	320
WoM	Pearson Correlation	.289	.257	.369	1	.441	.331	-.196
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	320	320	320	320	320	320	320
RepIntent	Pearson Correlation	.238	.235	.518	.441	1	.739	-.034
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.547
	N	320	320	320	320	320	320	320
Loyalty	Pearson Correlation	.174	.133	.480	.331	.739	1	.031
	Sig. (2-tailed)	.002	.018	.000	.000	.000		.583
	N	320	320	320	320	320	320	320
SwtIntent	Pearson Correlation	-.305	-.303	-.038	-.196	-.034	.031	1
	Sig. (2-tailed)	.000	.000	.501	.000	.547	.583	
	N	320	320	320	320	320	320	320

When presenting the results obtained from MANOVA, some researchers include the test statistics for Wilks' lambda. Wilks' lambda, also represented as " λ ", examines whether groups are somehow different without being concerned with whether they differ on at least one linear combination. The significance testing for Wilks' lambda are transferrable into an F-statistics and therefore researchers have the convenience of testing the effect of independent variables on the multiple dependent variables. Statistical programs available as data analysis tools such as SPSS for Windows can automatically generate and transform the value of Wilks' lambda into F statistics; the level of significance can be identified by computing the p-values (Zikmund, 2000).

Some researchers (e.g., McCall and Lynn, 2009) used Pillai's test instead of Wilks' lambda while presenting the results of multivariate effects. To identify if there is any difference exists with Pillai's test as compared to Wilks' lambda, this researcher computed multivariate statistics with Pillai's test and it was identified that the difference does not exist in the level of statistical significance while analysing the effect of independent variables. Therefore, only Wilks' lambda is included in the tables within this thesis when presenting the results of multivariate analysis.

Although MANOVAs and ANOVAs are frequently used in identifying the statistically significant difference in mean values of dependent variables in many research designs, these methods are particularly useful when used in experimental designs (Malhotra, 2004). In experimental situations, MANOVA can provide insights into not only the nature and predictive power of the independent measures but also the interrelationships and differences seen in the set of dependent measures (Hair et al., 2005).

In regards to the presentation of data obtained from ANOVAs and MANOVs, some authors prefer to present data by using multiple tables with each table reporting the finding of a particular type of effect (e.g., Butcher, 2005; Eisingerich and Bell, 2007). While the approach to include one set of data in a separate table is helpful, it requires multiple tables to cover the results for each type of single analysis ((Dorsch and Kelley, 1994). Incorporating multiple separate tables would possibly make it more difficult for the reader to identify the links in regards to influences on dependent variables. Also more authors (e.g., Forbes, Kelley, and Hoffman, 2005; Hocutt, Bowers, and Donovan, 2006; Karatepe, and Ekiz, 2004) preferred to present more than one type of effect in one table. They argue that including all required information within one table provides

a broader overview of the analyses to readers without requiring the reader to jump between multiple tables.

The following sections of this chapter include the results of the data analysis conducted to test the hypotheses proposed in Chapter Three (Section 3.9, page 64). There are two issues related to the consistency in reporting the results of data analysis and these shall now be clarified prior to discussing the analytical results.

The first issue is related to the reporting of hypothesis support. In some instances, there are multiple dependent variables for which the effects of the independent variables are to be identified. For example, hypothesis H1.1 posited that speed will improve seven consumer outcomes. Based on the analysis, one of three statements is used to report the findings throughout this thesis: i) reported as “hypothesis is supported” when all seven consumer outcomes are improved; ii) reported as “hypothesis is not supported” when none of the seven consumer outcomes is improved; and iii) reported as “hypothesis is partially supported” when some dependent variables are improved and others are not.

The second issue is related to the reporting of the level of significance, that is, the limits of p-values. Throughout this thesis, one of three statements is used to report the p-values: i) reported as “significantly different” when the p-value is less than .01 (abbreviated as $p < .01$); ii) reported as “significantly different only at the level .05” when the p-value is less than .05 but higher than .01 (abbreviated as $p < .05$); and iii) reported as “insignificant” when the p-value is higher than .05 (abbreviated as $p > .05$).

Data analysis consists of the examination of the effects of independent variables in: a) an overall failure situation; and b) across failure types. The next three sections include main effects (Section 6.4), moderating effects (Section 6.5) and three-way interaction effects (Section 6.6) of independent variables on dependent variables in the overall failure situation.

6.4 Main effects of independent variables on dependent variables

In order to conduct the analysis to identify the main effects, firstly, service recovery actions were grouped into organisational service recovery actions and employee service recovery actions as explained in Chapter Three. The organisational actions included compensation and empowerment while employee actions included apology from an

employee and the employee's response speed. As discussed in Section 3.9, hypothesis H1 posited that post-recovery consumer outcomes will improve with varying levels (or magnitudes) of service recovery actions. Section 3.9 also included hypothesis H1.1 through to H1.4. Within this set of hypotheses, H1.1 posited the effects of speed, H1.2 posited the effects of apology, H1.3 posited the effects of compensation and H1.4 posited the effects of empowerment. Specifically, hypotheses H1.1 posited that varying levels of response speed will have a positive effect on consumer outcomes¹¹ (Section 3.9, page 67).

The analysis was initiated with the examination of the overall effect of service recovery actions on consumer outcomes by conducting MANOVAs in which service recovery actions served as independent variables whereas consumer outcomes served as the dependent variables. The results are summarised in Table 6-2.

Table 6-2: Multivariate effects of service recovery actions on consumer outcomes

Recovery action	Wilks'	F	d.f.	Sig.
Speed	.677	717.51	7	.000
Empowerment	.893	181.13	7	.000
Apology	.735	544.41	7	.000
Compensation	.967	51.39	7	.000
Total			10549	

The analysis showed that the multivariate effects on consumer outcomes were significant with speed (Wilks'=.677, $F(7, 10549) = 717.51$, $p < .01$), apology (Wilks'=.735, $F(7, 10549) = 544.41$, $p < .01$), empowerment (Wilks'=.893, $F(7, 10549) = 181.13$, $p < .01$), and compensation (Wilks'=.967, $F(7, 10549) = 51.39$, $p < .01$).

These significant differences provided reference to three main issues related to this thesis. Firstly, the research aim of this thesis is based on the assumption that service recovery actions can affect consumer outcomes. The results in above table suggest the need for service recovery strategies to be in place for service organisations, as found in the literature, is possibly true. Secondly, these significant effects also provide support

¹¹ "Typically, seven consumer outcomes are regarded as important in the literature. These include: a) repurchase intent b) expectation update c) complaint motive d) overall satisfaction e) switching intent f) enhanced loyalty and g) WoM referral." (Bhandari et al., 2007).

for the assumption of this thesis that there is some effect of service recovery action on consumer outcomes after a service failure (as has been found in the past). Thirdly, the manipulations of recovery action within the hypothetical scenarios of this study were based on findings from the existing studies. It has been suggested that, as the consumer outcomes differ with recovery actions in the real incident of service failure, the statistically significant difference should appear if the manipulations of the variable within the scenarios are correct (Wirtz and Mattila, 2004). That, is the scenarios are, in truth, representative of the real world incident.

Along with the statistically significant differences at the level $p < .01$ for all variables in Table 6-2 (page 142), which are associated with higher F-values, the values of Wilks' lambda are also higher indicating that there was not a high dispersion in the overall mean values for the group of dependent variables. A Wilks' lambda close to 1 (e.g., Wilks'=.967 for compensation) shows that some of the dependent measures (from a group) within the experiment are either not significantly different or their mean values are not in same direction (some mean differences are negative and some are positive). Variables contributing to a higher value of Wilks' lambda in overall effect (i.e., multivariate effect) of independent variables can be identified by examining the effect of each independent variable on each dependent variable (i.e., univariate effect). ANOVA tests discussed in later sections of this chapter will clarify these issues.

In regards to obtaining ANOVA results, the statistical tool "SPSS for Windows" offers two options. One, by running ANOVAs separately, and two, by extracting ANOVAs from the univariate sections of MANOVA results itself. This researcher has chosen to run ANOVAs separately because not all hypotheses testing required MANOVAs to be run as some required only univariate analysis. Therefore, this researcher has chosen to run ANOVA's separately. This approach is identical to the approaches of other scenario based studies (e.g., Duffy, Miller, and Bexley, 2006; Hocutt, Bowers, and Donovan, 2006).

6.4.1 Effects of employee service recovery actions

Section 2.6 (page 29) included the discussion of service recovery actions examined and identified that they can be grouped into employee actions and organisational actions. Apology and response speed to the service failure are employee actions whereas

compensation and empowerment are organisational actions. As stated earlier, hypothesis H1 relates to the employee action and was further subdivided into H1.1 relating to the response speed and H1.2 relating to apology. In order to test the hypothesis H1.1¹², two levels of response speed were operationalised as high-speed action and low-speed action as a service recovery activity. These two levels of response speed examined in this study are identical to those in the previous studies of Andreassen (2000), Boshoff (1997), Bamford and Xystouri (2005), and Wirtz and Mattila (2004). The analysis involved the univariate ANOVAs where speed served as the independent variable and consumer outcomes as the dependent variables. A summary of ANOVA results is shown in Table 6-3.

Table 6-3: Univariate effects of response speed on consumer outcomes

Dependent Variable	Sum of Squares	d. f.	Mean Square	F	Sig.
Repurchase intent	1904.327	1	1904.327	1049.101	.000
Expectation update	1287.520	1	1287.520	655.185	.000
Complaint motive	1306.216	1	1306.216	741.503	.000
Overall satisfaction	446.793	1	446.793	222.574	.000
Switching intent	600.022	1	600.022	489.270	.000
Enhanced loyalty	500.805	1	500.805	280.695	.000
WoM referral	2700.517	1	2700.517	2287.912	.000
Total		10559			

The ANOVA results indicate that all seven consumer outcomes significantly differ between their respective high and low speeds of recovery. Specifically, there was a significant effect on repurchase intent ($F(1, 10559)=1049, p<.01$), expectation update ($F(1, 10559)=655, p<.01$), complaint motive ($F(1, 10559)=742, p<.01$), overall satisfaction ($F(1, 10559)=223, p<.01$), switching intent ($F(1, 10559)=489, p<.01$), enhanced loyalty ($F(1, 10559)=281, p<.01$) and WoM referral ($F(1, 10559)=2286, p<.01$) when speed (low versus high) served as the independent variable.

In order to investigate the direction of mean differences, an independent sample t-test was conducted. As previously discussed in Section 6.2 (page 135), the t-test helps

¹² H1.1 High response speed of service recovery in service failure situations will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

researchers in two ways: firstly, it indicates whether the difference in mean value is statistically significant; and secondly, it explains the direction of the mean differences (Zikmund, 2000). This helps researchers to conclude whether the effect of an independent variable is positive (or negative) on the dependent variable (Malhotra, 2004). Consequently, the results of t-tests indicate whether the independent variables (service recovery actions) have been able to improve (or deteriorate) the dependent variables (consumer outcomes) in favour of the organisation. The direction of mean difference and t-test statistics for response speed are summarised in Table 6-4.

Table 6-4: Mean contrasts of speed (low versus high) for consumer outcomes

Dependent Variable	Mean Low speed	Mean High Speed	Mean Difference	t-Value	Sig.
Repurchase intent	3.1388	4.0143	-.87543	-32.390	.000
Expectation update	4.9693	5.6891	-.71983	-25.597	.000
Complaint motive	4.5188	5.2438	-.72503	-27.231	.000
Overall satisfaction	3.7602	4.1843	-.42404	-14.919	.000
Switching intent	4.2395	3.7481	.49140	22.119	.000
Enhanced loyalty	3.1306	3.5795	-.44894	-16.754	.000
WoM referral	3.4243	4.4668	-1.04249	-47.832	.000

The negative values of mean difference for repurchase intention (-.87543), WoM referral (-1.04249), expectation update (-.71983), enhanced loyalty (-.44894), complaint motive (-.72503), and overall satisfaction (-.42404) in low speed (versus high speed) of service recovery indicates that the mean scores were higher with high response speed. This outcome suggests that recovery involving ‘high speed’ was able to significantly improve (not deteriorate) consumer outcomes.

Not surprisingly, switching intent was higher (positive) when response speed was low (mean difference =.49140) indicating the negative relationship of switching intent with speed of recovery (Table 6-4). In other words, customers had a lower intention of switching the service provider if the service recovery activity involved a quick response (high speed). This is an improvement for the organisation because the switching intent is lower with high speed. This outcome also supports the findings of existing studies, for example, slow service makes the customer to think about alternative service

providers (Boshoff and Leong, 1998), and a longer waiting time increases customer anger (Nguyen and McColl-Kennedy, 2003).

Low (versus high) response speed was negatively related with repurchase intent, expectation update, complaint motive, overall satisfaction, enhanced loyalty and WoM referral. Again, positively related customer switching intent with speed (low versus high) indicates that customers are less likely to seek an alternative service provider if response speed is high. This means that switching intention is likely to be improved in favour of the service provider with high speed. Therefore the hypothesis H1.1, which posited that response speed will improve consumer outcomes, was supported.

In Section 2.6.3 (page 34), apology was identified as one of the important employee service recovery actions. Hypothesis H1.2 relates to this service recovery action and proposed that apology will improve seven consumer outcomes¹³. In order to test this hypothesis, one-way ANOVAs were run with two levels of apology (no apology versus apology) as the independent variable and the seven consumer outcomes as dependent variables (Table 6-5). The varying levels of apology used for this test were identical to the study of Hoffman and Kelley (2000), Kanousi (2005), Michel (2001), Ruyter and Wetzels (2000) and Wirtz and Mattila (2004).

Table 6-5: Univariate effects of apology on seven consumer outcomes

Dependent Variable	Sum of Squares	d.f.	Mean Square	F	Sig.
Repurchase intent	1250.622	1	1250.622	666.247	.000
Expectation update	2436.885	1	2436.885	1312.791	.000
Complaint motive	1238.054	1	1238.054	700.243	.000
Overall satisfaction	1714.616	1	1714.616	908.498	.000
Switching intent	381.145	1	381.145	305.627	.000
Enhanced loyalty	529.321	1	529.321	297.128	.000
WoM referral	1103.458	1	1103.458	828.666	.000
Total		10559			

¹³H1.2 Apology as a service recovery action in service failure situations will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

The F-test results of the analysis show that apology had a significant effect on repurchase intent ($F(1, 10559)=666, p<.01$), expectation update ($F(1, 10559)=1313, p<.01$), complaint motive ($F(1, 10559)=700, p<.01$), overall satisfaction ($F(1, 10559)=908, p<.01$), switching intent ($F(1, 10559)=306, p<.01$), enhanced loyalty ($F(1, 10559)=297, p<.01$), and WoM referral ($F(1, 10559)=829, p<.01$).

Identical to the tests in hypothesis H1.1, independent sample t-tests were also conducted to identify the significance and direction of mean differences. That is, whether the consumer outcomes are improved (or deteriorated) with service recovery actions. Table 6-6 includes the mean differences in all seven dependent variables with two levels of apology (no apology versus apology).

Table 6-6: Mean contrasts of apology (no apology versus apology) for consumer outcomes

Dependent Variable	No Apology	Apology	Mean Difference	t-Value	Sig.
Repurchase intent	3.1465	3.8361	-.68954	-25.812	.000
Expectation update	4.7898	5.7524	-.96253	-36.232	.000
Complaint motive	4.4712	5.1573	-.68607	-26.462	.000
Overall satisfaction	3.5416	4.3490	-.80738	-30.141	.000
Switching intent	4.2321	3.8515	.38066	17.482	.000
Enhanced loyalty	3.0899	3.5385	-.44860	-17.237	.000
WoM referral	3.5150	4.1627	-.64770	-28.787	.000

The results in Table 6-6 show the significant difference in mean values for repurchase intent ($M=3.15$ and 3.84 ; $t=-25.81, p<.01$), expectation update ($M=4.79$ and 5.75 ; $t=-36.23, p<.01$), complaint motive ($M=4.47$ and 5.16 ; $t=-26.46, p<.01$), overall satisfaction ($M=3.54$ and 4.35 ; $t=-30.14, p<.01$), switching intent ($M=4.23$ and 3.85 ; $t=17.48, p<.01$), enhanced loyalty ($M=3.08$ and 3.54 ; $t=-17.24, p<.01$), WoM referral ($M=3.51$ and 4.16 ; $t=-28.79, p<.01$). This test further confirms the ANOVA results of Table 6-5 (page 146) which also showed that apology had a statistically significant effect on the seven consumer outcomes.

In addition to the significant effect of apology on the seven consumer outcomes, the direction of mean difference was negative for switching intent ($M=4.23$ vs. $M=3.85$; $t=17.48, p<.01$) indicating that switching intention is likely to be higher if apology is

not offered. This means that all seven consumer outcomes were improved in favour of the service provider. Therefore hypothesis H1.2 is also supported.

6.4.2 Effects of organisational service recovery actions

The second set of independent variables to be examined within this study was organisational actions. As explained previously in Section 2.6 (page 29), organisational service recovery actions include empowerment and compensation. Hypotheses H1.3 relates to the effect of compensation while H1.4 relates to the effect of empowerment on consumer outcomes. As stated in research question 1 in Section 1.7 (page 14), the Hypothesis H1.3 seeks to investigate whether there are any differences in consumer outcomes across the type of compensation (refund versus replacement). Specifically, H1.3 stated that there will be no difference in the seven consumer outcomes with varying types of compensation¹⁴. In order to test this hypothesis, one-way ANOVAs were run by keeping types of compensation as the independent variable (Table 6-7).

Table 6-7: Univariate effects of type of compensation on consumer outcomes

Dependent Variable	Sum of Squares	d.f.	Mean Square	F	Sig.
Repurchase intent	95.709	1	95.709	48.180	.000
Expectation update	145.446	1	145.446	70.152	.000
Complaint motive	20.456	1	20.456	10.862	.001
Overall satisfaction	381.668	1	381.668	189.549	.000
Switching intent	21.200	1	21.200	16.547	.000
Enhanced loyalty	86.029	1	86.029	47.179	.000
WoM referral	79.498	1	79.498	55.647	.000
Total		10559			

The F-test results indicated that there were significant effects of type of compensation on complaint motive ($F(1, 10559)=11, p<.01$), switching intent ($F(1, 10559)=17, p<.01$), expectation update ($F(1, 10559)=70, p<.01$), repurchase intent ($F(1, 10559)=48, p<.01$) overall satisfaction ($F(1, 10559)=190, p<.01$), enhanced loyalty ($F(1, 10559)=47, p<.01$) and WoM referral ($F(1, 10559)=56, p<.01$) with refund (versus

¹⁴H1.3 In a service failure situation, improvement in consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will differ with the type of compensation (refund versus replacement) offered.

replacement). These results supported hypothesis H1.3 which posited that consumer outcomes will differ with type of compensation.

In order to compare the mean values of dependent variables between refund and replacement, independent sample t-tests were again conducted where type of compensation served as the grouping variable and consumer outcomes served as the dependent variables. The results of the t-tests are summarised in Table 6-8.

Table 6-8: Mean contrasts of type of compensation (refund versus replacement) for seven consumer outcomes

Dependent Variable	Refund	Replacement	Mean Difference	t-Value	Sig.
Repurchase intent	3.5686	3.3781	.19049	6.94	.000
Expectation update	5.3629	5.1281	.23483	8.37	.000
Complaint motive	4.8388	4.7507	.08807	3.29	.001
Overall satisfaction	4.1168	3.7364	.38040	13.76	.000
Switching intent	4.0072	4.0968	-.08965	-4.06	.000
Enhanced loyalty	3.3937	3.2131	.18060	6.86	.000
WoM referral	3.9087	3.7350	.17361	7.46	.000

The comparison between the mean values indicates that repurchase intent ($M=3.57$ vs. 3.38 ; $t=6.94$, $p<.01$), expectation update ($M=5.36$ vs. 5.12 ; $t=8.37$, $p<.01$), complaint motive ($M=4.84$ vs. 4.75 ; $t=3.29$, $p<.01$), overall satisfaction ($M=4.12$ vs. 3.74 ; $t=13.76$, $p<.01$), enhanced loyalty ($M=3.39$ vs. 3.32 ; $t=6.86$, $p<.01$), and WoM referral ($M=3.91$ vs. 3.73 ; $t=7.46$, $p<.01$) were higher when a refund was offered. In contrast, level of switching intent was lower with a refund ($M=4.01$ vs. 4.10 ; $t=-4.06$, $p<.01$). Together, these significantly different results further support the results of the ANOVA test shown earlier in Table 6-7 (page 148). As such, hypothesis H1.3, positing difference in consumer outcomes with varying types of compensation, was supported.

The effect of empowerment, which was another organisational service recovery action, was analysed in order to test hypothesis H1.4¹⁵. Empowerment was varied at two levels (not empowered versus empowered). It was proposed that empowerment will improve seven consumer outcomes. To test hypothesis H1.4, one way ANOVAs were run for

¹⁵ H1.4 Recovery activities undertaken by an empowered employee in a service failure will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

two levels of empowerment. The results indicate that there were significant effects of empowerment on repurchase intent, expectation update, complaint motive, overall satisfaction, switching intent, enhanced loyalty and WoM referral (Table 6-9).

Table 6-9: Univariate effects of empowerment on consumer outcomes

Dependent Variable	Sum of Squares	d f	Mean Square	F	Sig.
Repurchase intent	1112.453	1	1112.453	588.537	.000
Expectation update	809.584	1	809.584	402.699	.000
Complaint motive	367.358	1	367.358	198.518	.000
Overall satisfaction	237.906	1	237.906	117.358	.000
Switching intent	98.096	1	98.096	77.004	.000
Enhanced loyalty	822.111	1	822.111	468.780	.000
WoM referral	129.115	1	129.115	90.678	.000
Total		10559			

Further, t-tests were conducted in which empowerment (no empowerment versus empowerment) served as the grouping variable and consumer outcomes served as the dependent variables. The test statistics are listed in Table 6-10.

Table 6-10: Mean contrasts of empowerment (no empowerment versus empowerment) for seven consumer outcomes

Dependent Variable	No Empowerment	Empowerment	Mean Difference	t-Value	Sig.
Repurchase intent	3.1038	3.7578	-.65396	-24.260	.000
Expectation update	4.9292	5.4870	-.55788	-20.067	.000
Complaint motive	4.5828	4.9586	-.37580	-14.090	.000
Overall satisfaction	3.7513	4.0537	-.30242	-10.833	.000
Switching intent	4.1622	3.9680	.19419	8.775	.000
Enhanced loyalty	2.9855	3.5476	-.56218	-21.651	.000
WoM referral	3.6943	3.9171	-.22279	-9.522	.000

The mean difference for switching intent was significantly higher with no empowerment (versus empowerment) ($M=4.16$ vs. $M=3.97$; $t=8.77$, $p<.01$). All other mean differences were significantly higher with empowerment: repurchase intent ($M=3.10$ vs. $M=3.76$; $t=-24.26$, $p<.01$); expectation update ($M=4.93$ vs. $M=5.49$; $t=-20.06$, $p<.01$); complaint motive ($M=4.58$ vs. $M=4.96$; $t=-14.09$, $p<.01$); overall

satisfaction ($M=3.75$ vs. $M=4.05$; $t=-10.83$, $p<.01$); enhanced loyalty ($M=2.99$ vs. $M=3.55$; $t=-21.65$, $p<.01$); and WoM referral ($M=3.69$ vs. $M=3.92$; $t=-9.52$, $p<.01$). These differences are consistent with hypothesis H1.4 which posited that consumer outcomes will improve with empowerment.

The positive relationship of complaint motive with service recovery actions seems to suggest that customers are likely to complain (or explain what went wrong in the service performance). This cannot be viewed as a surprising outcome because customers are possibly more willing to complain if they believe the likelihood of the resolution of the problem is high (recovery actions) (Blodgett and Anderson, 2000). Similarly high levels of expectation updates with service recovery actions suggest that customers expect better service in future if they perceive that recovery efforts are being undertaken by the service provider (Bebko, 2000). Further, higher and unidirectional mean values (i.e., all positive) of complaint motive, expectation update and repurchase intent with service recovery actions together seem to suggest that complaining customers expect improvement in the service (expectation update) and show willingness to purchase in future (repurchase intent).

However, variations in switching intent with service recovery actions were not in the same direction, that is, some were improved while others were deteriorated. For example, switching intent was higher with some service recovery actions while it was lower with other. The interpretation based on these variations is discussed in Chapter Seven.

6.5 Moderating effects of service recovery actions

Another aim of this research is to identify if there are moderating effects (i.e., two-way interaction effects)¹⁶ of independent variables on dependent variables (Baron and Kenny, 1986), that is, hypotheses H2.1 through to H2.4 (see Section 3.9.3, page 69). These hypotheses posited that one service recovery action will moderate the effect of another service recovery action on consumer outcomes. Specifically, Hypothesis H2.1 posited the moderating effect of response speed, and Hypothesis H2.2 posited the

¹⁶ The terms "moderating effect" and "two-way interaction effects" are used interchangeably in the literature. This researcher was not able to avoid such occurrence in this thesis as well.

moderating effect of apology, on organisational actions (compensation and empowerment). The tests of these hypotheses are now discussed in following sections.

6.5.1 Effects of speed with compensation and empowerment

Hypothesis H2.1 (sub-hypotheses H2.1a and H2.1b) posited that response speed will moderate the effect of compensation and empowerment on consumer outcomes¹⁷. In order to test these hypotheses, firstly, MANOVAs were run to identify if there is a moderating effect (that is, interaction effect) of speed with both empowerment and compensation. Secondly, univariate ANOVAs were run to identify the effect of the combination of response speed with compensation and empowerment on each consumer outcome.

The analysis began with investigation of the interaction effect between two levels of speed (low versus high) with a) two types of compensation (refund versus replacement); and b) two levels of empowerment (not empowered versus empowered). This was followed by running 2x2 ANOVAs for both combinations of independent variables (speed with compensation and speed with empowerment). Firstly, MANOVA results show significant differences for all dependent variables. Both empowerment (Wilks'=.874; F=104.81; p<.01) and compensation (Wilks'=.955; F=34.76; p<.01) show interaction effects as well as direct effect with speed of recovery. These results are summarised in Table 6-11.

Table 6-11: Multivariate moderating effects of speed with empowerment and types of compensation on consumer outcomes

Effect variables	Wilks'	F	d.f.	Sig.
speed	.731	555.44	7	.000
empowerment	.909	151.70	7	.000
compensation	.974	39.97	7	.000
speed * empowerment	.874	104.81	14	.000
speed * compensation	.955	34.76	14	.000

¹⁷ Consumer outcomes are: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

Secondly, a further analysis was conducted by running one-way ANOVAs to identify the effect of these independent variables on each dependent variable, that is, the univariate effect (see Table 6-12, page 154).

Table 6-12: Univariate interaction effects of speed with types of compensation and empowerment on consumer outcomes

Effect	d.f.	RepInt*	ExpUpdate*	CompMotive*	OverallSatis*	SwitchInt*	EnhLoyalty*	WoM*
Speed	1	930.553 (.000)	585.831 (.000)	665.068 (.000)	171.800 (.000)	482.011 (.000)	219.155 (.000)	2275.267 (.000)
Empowerment	1	779.528 (.000)	455.840 (.000)	225.955 (.000)	171.608 (.000)	58.149 (.000)	591.644 (.000)	68.419 (.000)
Compensation	1	46.057 (.000)	36.793 (.000)	5.829 (.016)	145.935 (.000)	12.451 (.000)	60.811 (.000)	73.436 (.000)
Speed * Empowerment	1	247.446 (.000)	54.205 (.000)	48.144 (.000)	128.693 (.000)	3.351 (.067)	184.038 (.000)	2.496 (.114)
Speed * Compensation	1	5.233 (.022)	86.557 (.000)	25.609 (.000)	45.754 (.000)	2.831 (.092)	13.661 (.000)	.006 (.938)

Note: Corresponding F-values are presented in each cell with level of significance in parenthesis.

*Abbreviations are used for seven consumer outcomes: repurchase intent; expectation update; complaint motive; overall satisfaction; switching intent; enhanced loyalty; and WoM referral.

The results of the combined effect of service recovery actions on each consumer outcome indicate that the interaction effects of speed and empowerment were significant on: repurchase intent ($F=247.45$; $p<.01$); expectation update ($F=54.20$; $p<.01$); complaint motive ($F=48.14$; $p<.01$); overall satisfaction ($F=128.69$; $p<.01$); and enhanced loyalty ($F=184.03$; $p<.01$). However the effect was insignificant for switching intention ($F=3.35$; $p>.05$), WoM referral ($F=2.50$; $p>.05$). Altogether, hypothesis H2.1a¹⁸ was only partially supported.

In regard to H2.1b¹⁹, significant multivariate effects of the interaction of speed and compensation appeared on repurchase intent ($F=5.23$; $p<.01$), expectation update ($F=86.56$; $p<.01$) complaint motive ($F=25.61$; $p<.01$) overall satisfaction ($F=45.75$; $p<.01$) and loyalty ($F=13.66$; $p<.01$). The interaction effect was insignificant for switching intent ($F=2.83$; $p>.05$) and WoM referral ($F=.006$; $p>.05$). Since the interaction effect of speed with empowerment and compensation was significant only on repurchase intent, expectation update, complaint motive, overall satisfaction and loyalty and not on switching intent and WoM referral, hypothesis H2.1b was also only partially supported.

6.5.2 Effects of an apology with empowerment and compensation

The effects of an apology were examined in order to test the hypothesis H2.2. This hypothesis posited that an apology will moderate the effect of compensation and empowerment on consumer outcomes. Specifically H2.2a²⁰ posited that apology will show interaction effects with compensation on consumer outcomes, and H2.2b posited that apology will show interaction effects with empowerment on consumer outcomes.

¹⁸ H2.1a The response speed (low versus high) in a service failure situation will show a two-way interaction effect with compensation on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

¹⁹ H2.1b The response speed (low versus high) in a service failure situation will show a two-way interaction effect with empowerment on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

²⁰ H2.2a Apology (no apology versus apology) offered for the inconvenience caused by a service failure will show a two-way interaction effect with compensation on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

Both MANOVA and ANOVA were run to test these hypotheses where apology served as the moderating variable, compensation and empowerment served as the independent variables, and consumer outcomes served as the dependent variables.

The multivariate analysis examined the combined effect of apology with both empowerment and compensation on a set of seven dependent variables, while ANOVA examined the univariate interaction effect of apology with empowerment and compensation on each dependent variable. The results indicate that apology significantly interacted with both empowerment (Wilks'=.860; $F=118.03$; $p<.01$) and compensation (Wilks'=.938; $F=49.20$; $p<.01$). The direct effects of these three variables (apology, empowerment and compensation) were also significant on dependent variables (Table 6-13).

Table 6-13: Multivariate moderating effects of apology with empowerment and types of compensation on consumer outcomes

Effect	Wilks'	F	d.f.	Sig.
Apology	.792	394.9	7	.000
Empowerment	.904	160.1	7	.000
Compensation	.972	43.0	7	.000
Apology * Empowerment	.860	118.0	14	.000
Apology * Compensation	.938	49.2	14	.000

The ANOVA results reveal that the significant multivariate interaction between apology and empowerment (Table 6-13) is due to the significant univariate effects on repurchase intent ($F=14.20$; $p<.01$), expectation update ($F=470.21$; $p<.01$), complaint motive ($F=246.76$; $p<.01$), overall satisfaction ($F=8.46$; $p<.01$), and switching intent ($F=6.01$; $p<.01$) (Table 6-14, page 157).

However, the interaction effects of apology and empowerment were insignificant on enhanced loyalty ($F=.044$; $p<.834$) and WoM referral ($F=.066$; $p<.797$). Since the effect on these two variables was insignificant, Hypothesis H2.2a, which posited the significant effect on all seven consumer outcomes, was only partially supported.

Table 6-14: Univariate interaction effect of apology with types of compensation and empowerment on consumer outcomes

Effect	d.f.	RepInt*	ExpUpdate*	CompMotive*	OverallSatis*	SwitchInt*	EnhLoylty*	WoM*
Apology	1	718.241 (.000)	1625.150 (.000)	836.096 (.000)	967.118 (.000)	330.915 (.000)	299.444 (.000)	826.323 (.000)
Empowerment	1	606.163 (.000)	409.751 (.000)	181.591 (.000)	119.348 (.000)	75.823 (.000)	475.428 (.000)	92.043 (.000)
Compensation	1	54.283 (.000)	84.024 (.000)	16.737 (.000)	228.305 (.000)	22.094 (.000)	46.031 (.000)	66.310 (.000)
Apology * Empowerment	1	14.205 (.000)	470.212 (.000)	246.765 (.000)	8.459 (.004)	6.017 (.014)	.044 (.834)	.066 (.797)
Apology * Compensation	1	5.233 (.009)	86.557 (.000)	25.609 (.000)	45.754 (.000)	2.831 (.092)	13.661 (.001)	.006 (.044)

Note: Corresponding F-values are presented in each cell with level of significance in parenthesis.

*Abbreviations are used for seven consumer outcomes: repurchase intent; expectation update; complaint motive; overall satisfaction; switching intent; enhanced loyalty; and WoM referral.

Similarly, the significant multivariate interaction of apology and compensation is due to the significant univariate effects on repurchase intent ($F=5.23$; $p<.01$), expectation update ($F=86.56$; $p<.01$), complaint motive ($F=25.61$; $p<.01$), overall satisfaction ($F=45.75$; $p<.01$), enhanced loyalty ($F=25.61$; $p<.01$) and WoM referral ($F=.006$; $p<.044$). The interaction effect of apology and compensation was insignificant on switching intent ($F=2.83$; $p<.092$). Since there was not significant difference in all consumer outcomes, hypothesis H2.2b is also only partially supported²¹.

6.5.3 Effects within employee and organisational actions

Hypothesis H2.3 proposed the combined effect of organisational actions (empowerment and compensation) and H2.4 proposed the combined effect of employee actions (apology and compensation) on the seven consumer outcomes. When MANOVAs were run to identify the multivariate effect, there was a significant interaction effect between employee actions: apology and response speed (Wilks'=.984; $F=24.73$; $p<.01$) and organisational actions: empowerment and compensation (Wilks'=.997; $F=4.72$, $p<.01$). In addition, one-way effects of these variables were also significant for the seven dependent variables (Table 6-15).

Table 6-15: Multivariate moderating effects within employee and organisational service recovery actions

Effect	Wilks'	F	d.f.	Sig.
Speed	.693	669.0	7	.000
Apology	.778	429.1	7	.000
Apology * Speed	.984	24.7	7	.000
Empowerment	.914	142.1	7	.000
Compensation	.977	34.9	7	.000
Empowerment * Compensation	.997	4.7	7	.000

To gain an insight into the moderating effects of these recovery actions on each consumer outcome, ANOVAs were run. When apology and speed served as independent variables, the ANOVA test results (shown in Table 6-16) indicate that the significant multivariate effects of service recovery action seen above in Table 6-15

²¹ H2.2b Apology (no apology versus apology) offered for the inconvenience caused by a service failure will show a two-way interaction effect with empowerment on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

were linked to univariate effects of service recovery actions on six dependent variables: repurchase intent ($F=68.20$; $p<.01$); expectation update ($F=124.17$; $p<.01$); overall satisfaction ($F=17.04$; $p<.01$); enhanced loyalty ($F=17.06$; $p<.01$); WoM referral ($F=65.33$; $p<.01$); and the effect on switching intent which was significant only at the level of $p<.05$ ($F=5.08$; $p<.05$). The effect was insignificant for complaint motive ($F=.2.15$; $p>.05$). Again, Hypothesis H2.3²² is also partially supported as there is an instance where the effect was statistically insignificantly.

Table 6-16: Univariate interaction effects of apology and speed on consumer outcomes

Effect	d.f.	Rep Int	Exp Update	Comp Motive	Overall Satis	Switch Int	Enh Loylty	WoM Ref
Apology	1	1083.769 (.000)	2086.635 (.000)	1176.298 (.000)	1557.096 (.000)	351.305 (.000)	467.964 (.000)	961.323 (.000)
Speed	1	1893.475 (.000)	1280.917 (.000)	1331.832 (.000)	459.502 (.000)	604.321 (.000)	501.569 (.000)	2683.559 (.000)
Apology	1	68.205 (.000)	124.169 (.000)	2.149 (.252)	17.041 (.002)	5.081 (.039)	17.058 (.002)	65.326 (.000)
* Speed								

Similarly, MANOVAs were run to examine the multivariate effects of empowerment and compensation on consumer outcomes (Table 6-15, page 158). The test results show the significant interaction effect of empowerment and compensation on the set of consumer outcomes (Wilks'=.997; $F=4.72$; $p<.01$).

When ANOVAs were run (Table 6-17 on next page), the results show that there were significant effects on expectation update ($F=10.44$; $p<.05$) and WoM referral ($F=7.44$; $p<.05$). However the effects were insignificant on repurchase intent ($F=.37$; $p>.05$), complaint motive ($F=4.74$; $p>.05$), overall satisfaction ($F=2.07$; $p>.05$), switching intent ($F=4.22$; $p>.05$), and enhanced loyalty ($F=.051$; $p<.05$). Again, these findings only partially support hypothesis H2.4.²³

²² H2.3 There will be a two-way interaction effect of employee service recovery actions (apology and speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

²³ H2.4 There will be a two-way interaction effect of organisational service recovery actions (empowerment and compensation) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.

Table 6-17: Effect of empowerment and compensation on consumer outcomes

Effect	d.f.	Rep Int*	Exp Update*	Comp Motive*	Overall Satis*	Switch Int*	Enh Loylty*	WoM Ref*
Empowerment	1	1110.233 (.000)	812.008 (.000)	363.766 (.000)	234.079 (.000)	98.936 (.000)	819.760 (.000)	126.322 (.000)
Compensation	1	90.527 (.000)	131.651 (.000)	21.935 (.001)	380.632 (.000)	18.356 (.000)	82.333 (.000)	83.533 (.000)
Empowerment *Compensation	1	.368 (.659)	10.443 (.022)	4.744 (.109)	2.067 (.308)	4.220 (.069)	.051 (.864)	7.437 (.022)

Note: Corresponding F-values are presented in each cell with level of significance in parenthesis.

*Abbreviations are used for seven consumer outcomes: repurchase intent; expectation update; complaint motive; overall satisfaction; switching intent; enhanced loyalty; and WoM referral.

6.6 Three-way interaction effects of recovery actions

A three-way interaction effect is the combined effect of three independent variables on dependent variables (Wirtz and Mattila, 2004). Hypotheses H2.5 of this thesis relates to this kind of effect and proposed that service recovery actions will show a three-way interaction effect on consumer outcomes. For ease of discussion on the findings, this hypothesis was subdivided into H2.5a and H2.5b.

Firstly, the effects on three dependent variables, which generally had lower mean values with direct effect of service recovery actions (see Section 6.4, page 141), were tested with H2.5a which posited that the combined effect of any three service recovery actions amongst speed, apology, empowerment and compensation will be significant on: a) complaint motive; b) switching intent; and c) expectation update. Secondly, the variables which generally had higher mean values with direct effect of service recovery actions (See Section 6.4) were tested with H2.5b, which posited that: a) repurchase intent; b) enhanced loyalty; c) overall satisfaction; and d) WoM referral will significantly differ with a three-way interaction effect of service recovery actions.

In order to test H2.5a, MANOVAs were run and the three-way interaction effects of the variables were examined amongst empowerment, compensation apology and speed of recovery on three consumer outcomes²⁴. The impact of the combination of independent variables on each dependent variable was obtained by running ANOVAs. Table 6-18

²⁴ H2.5a Service recovery actions will show three-way interaction effects on: a) expectation update; b) complaint motive; and c) switching intent in an overall service failure situation.

includes the results of both multivariate and univariate effects of three-way interactions amongst service recovery actions.

Table 6-18: Three-way interaction effects of service recovery actions on consumer outcomes

Effect	MANOVA			ANOVA			
	F	Sig.	d.f.	ExUpdate ¹	ComMotive ²	VaySwtInt ³	d.f.
Speed * Empowerment * Apology	70.1	.000	7	.427 (.000)	16.95 (.000)	73.04 (.000)	1
Speed * Empowerment * Compensation	16.4	.000	7	16.602 (.000)	30.306 (.000)	.028 (.867)	1
Speed * Apology * Compensation	39.3	.000	7	28.630 (.000)	81.70 (.000)	84.82 (.000)	1
Empowerment * Apology * Compensation	36.8	.000	7	28.848 (.000)	.002 (.963)	5.954 (.015)	1

Note: Corresponding F values are presented in each cell of univariate ANOVAs with level of significance in parenthesis.
Abbreviations are used for consumer outcomes: ¹expectation update, ²complaint motive and ³varying switching intent.

The results show all three-way interaction effects of service recovery actions were significant on the set of consumer outcomes. Univariate three-way interaction effects were significant other than for the combination of empowerment, apology and compensation on complaint motive ($F=.002$, $p>.05$) and the combination of speed, empowerment and compensation on switching intent ($F=.028$, $p>.05$). These results only partially support Hypothesis H2.5a.

In order to test H2.5b, MANOVAs were run for the effect of service recovery action as independent variables where consumer outcomes served as the dependent variables²⁵. Further, ANOVAs were also run in order to identify the univariate effect of service recovery actions on each consumer outcome. The summary of these tests is included in Table 6-19 (next page).

²⁵ H2.5b Service recovery actions will show three-way interaction effects on: a) repurchase intent; b) enhanced loyalty; c) overall satisfaction; and d) WoM referral in an overall service failure situation.

Table 6-19: Three-way interaction effects of service recovery actions on consumer outcomes

Effect	MANOVA			ANOVA				
	F	Sig.	d.f.	Rep Int ¹	Enh Loylty ²	Ovr Satis ³	WoM Ref ⁴	d.f.
Speed * Empowerment * Apology	70.01	.000	7	151.6 (.000)	26.079 (.000)	99.526 (.000)	193.0 (.000)	1
Speed * Empowerment * Compensation	16.42	.000	7	.019 (.890)	30.140 (.000)	19.596 (.000)	16.742 (.000)	1
Speed * Apology * Compensation	39.37	.000	7	49.982 (.000)	30.815 (.000)	22.390 (.000)	38.159 (.000)	1
Empowerment * Apology * Compensation	36.84	.000	7	24.013 (.000)	11.533 (.001)	9.915 (.002)	58.776 (.000)	1

Note: Corresponding F values are presented in each cell of univariate ANOVAs with level of significance in parenthesis.
Abbreviations are used for consumer outcomes: ¹ repurchase intent; ² enhanced loyalty; ³ overall satisfaction; and ⁴WoM referral

The multivariate three-way interaction effects of speed, empowerment and apology (F=70.01, p<.01), speed, empowerment and compensation (F=16.42, p<.01), speed, apology and compensation (F=39.37, p<.01), and empowerment, apology and compensation (F=36.84, p<.01) on consumer outcomes were all significant. However the univariate three-way interaction effect was statistically insignificant on repurchase intent with the combination of speed, empowerment and compensation (F=.019, p>.05). Again, these results partially supported the hypothesis H2.5b.

6.7 Direct effects of recovery actions across failure types

Hypotheses H3 was related to the variation in consumer outcomes with service recovery actions across failure types. This hypothesis was further sub-divided for each service recovery action. As such, hypothesis 3.1²⁶ was related with the effect of speed which proposed that effect of speed will not be similar in both type of service failure. The hypothesis was tested by conducting independent sample t-tests where service failure served as a split variable (i.e., grouping variable). The split variable helps to

²⁶ H3.1: The effects of **response speed** (low speed versus high speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

align the data into groups so that the statistical analysis can be carried out for each group²⁷.

When independent sample t-tests were run comparing seven dependent variables with speed as the independent variable, mixed results were obtained (see Table 6-20, page 165). In process failure, significant differences appeared for repurchase intent ($M=3.62$ vs. $M=4.23$; $t=-10.74$, $p<.01$), complaint motive ($M=5.07$ vs. $M=4.82$; $t=4.68$, $p<.01$), switching intent ($M=4.06$ vs. $M=4.35$; $t=-6.46$, $p<.01$) and WoM referral ($M=3.75$ vs. $M=3.86$; $t=-2.23$, $p>.05$). The effect of speed on overall satisfaction ($M=4.13$ vs. $M=4.24$; $t=-1.65$, $p>.05$), expectation update ($M=5.84$ vs. $M=5.78$; $t=-1.427$, $p>.05$) and enhanced loyalty ($M=3.53$ vs. $M=3.62$; $t=-1.61$, $p>.05$) were not significant.

In the outcome failure however, the effect of low versus high speed of recovery was significantly different for all outcomes: repurchase intent ($M=2.93$ vs. $M=3.97$; $t=-34.2$, $p<.01$), expectation update ($M=4.59$ vs. $M=5.67$; $t=-32.87$, $p<.01$), complaint motive ($M=4.28$ vs. $M=5.33$; $t=-35.15$, $p<.01$), overall satisfaction ($M=3.60$ vs. $M=4.17$; $t=-18.14$, $p<.01$), switching intent ($M=4.32$ vs. $M=3.62$; $t=27.81$, $p<.01$), enhanced loyalty ($M=2.96$ vs. $M=3.57$; $t=-20.38$, $p<.01$) and WoM referral ($M=3.28$ vs. $M=4.60$; $t=-54.82$, $p<.01$).

In process failure, the differences were not significant for enhanced loyalty and expectation update. Complaint motive was lower with high speed in process failure but not in outcome failure. This possibly occurs because of the ease of access to service staff undertaking recovery activities during the service process. This access is less likely after the completion of the service (outcome failure recovery). The difference (negative mean difference) was also seen for switching intent suggesting that speedy action cannot mitigate the effect of a poor service process.

The significant effect of speed on expectation update occurs only in outcome failure and not in process failure possibly indicating that customers remain vigilant to the service processes but make their decisions of what to expect in future only after evaluating recovery action in outcome failure.

²⁷ SPSS for Windows, 2003 online edition.

There was also a similar result for enhanced loyalty suggesting that loyal customers are less concerned with the service process as long as service providers respond quickly (high speed) to outcome failure. Altogether hypothesis H3.1, which posited the different effects of service recovery actions on consumer outcomes in both type of failures, was partially supported.

Hypothesis 3.2²⁸ proposed that, when an apology is offered, variation in consumer outcomes will not be similar in both types of failure. Table 6-21 (page 166) includes the result of two independent sample t-tests (one for process failure and one for outcome failure) when apology was kept as the independent variable.

In process failure, the effects were significant for consumer outcomes with apology (no apology versus apology) other than expectation update ($M=5.84$ vs. $M=5.80$; $t=.909$, $p>.05$). The significant effects included repurchase intent ($M=3.46$ vs. $M=4.19$; $t=-14.8$, $p<.01$), complaint motive ($M=5.07$ vs. $M=4.91$; $t=3.32$, $p<.01$), overall satisfaction ($M=3.74$ vs. $M=4.69$; $t=-18.041$, $p<.01$), enhanced loyalty ($M=3.32$ vs. $M=3.84$; $t=-10.33$, $p<.01$) WoM referral ($M=3.39$ vs. $M=4.28$; $t=-23.33$, $p<.01$) and switching intent ($M=4.18$ vs. $M=4.07$; $t=2.73$, $p<.01$) which was significant only at the level $p<.01$.

However there were significant differences in all consumer outcomes in the outcome failure situation. Further, the significant differences in mean values for complaint motive were not in the same direction. That is, complaint motive was higher in outcome failure and lower in process failure. Together, the results suggested that the effects of apology across failure types were not identical. Therefore hypothesis H3.2 was only partially supported (see Appendix D on page 298).

²⁸ H3.2 The effects of **apology** (no apology versus apology) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

Table 6-20: Mean comparisons for the magnitude of speed (low speed versus high speed) across failure types

Dependent Variable	Process Failure			Outcome Failure		
	Speed-Low	Speed-High	t-value	Speed-Low	Speed-High	t-value
Repurchase intent	3.6225	4.2329	-10.741 (p<.01)	2.9267	3.9663	-34.216 (p<.01)
Expectation update	5.8375	5.7792	1.427 (p>.05)	4.5885	5.6693	-32.871 (p<.01)
Complaint motive	5.0700	4.8231	4.684 (p<.01)	4.2770	5.3362	-35.155 (p<.01)
Overall satisfaction	4.1338	4.2375	-1.649 (p>.05)	3.5964	4.1726	-18.136 (p<.01)
Switching intent	4.0568	4.3500	-6.465 (p<.01)	4.3196	3.6160	27.807 (p<.01)
Enhanced loyalty	3.5263	3.6194	-1.609 (p>.05)	2.9570	3.5707	-20.383 (p<.01)
WoM referral	3.7512	3.8616	-2.348 (p<.05)	3.2810	4.5997	-54.825 (p<.01)

Note: Corresponding levels of significance for mean difference are presented in parenthesis below the t-values.

Table 6-21: Mean comparisons for apology (apology not offered versus apology offered) across failure types

Dependent Variable	Process Failure			Outcome Failure		
	Apology not offered	Apology offered	t-value	Apology not offered	Apology offered	t-value
Repurchase intent	3.4601	4.1944	-14.809 (p<.01)	3.0297	3.7217	-22.180 (p<.01)
Expectation update	5.8366	5.8036	.909 (p>.05)	4.3998	5.7360	-42.863 (p<.01)
Complaint motive	5.0735	4.9175	3.324 (p<.01)	4.2468	5.2338	-32.895 (p<.01)
Overall satisfaction	3.7408	4.6938	-18.024 (p<.01)	3.4674	4.2390	-25.041 (p<.01)
Switching intent	4.1833	4.0725	2.733 (p<.05)	4.2503	3.7809	18.302 (p<.01)
Enhanced loyalty	3.3207	3.8425	-10.329 (p<.01)	3.0039	3.4415	-14.535 (p<.01)
WoM referral	3.3875	4.2781	-23.326 (p<.01)	3.5625	4.1259	-20.712 (p<.01)

Note: Corresponding levels of significance for mean differences are presented in parenthesis below the t-values.

Hypothesis H3.3 proposed that the effects of empowerment on consumer outcomes will not be similar in both process failure and outcome failure. Again, independent sample t-tests were conducted for varying levels of empowerment while failure type was kept as the grouping variable. The results of this test are summarised in Table 6-22 (next page). As can be seen, there were significant differences in all consumer outcomes across both type of failures with varying levels of empowerment except for switching intent in a process failure situation ($t=1.43$, $p<.05$) which was significant only at the level $p<.05$.

However, the comparison of mean values indicates that the direction of the mean values were not identical for some variables. For example, the mean difference for expectation update was higher with no empowerment than with empowerment with a positive mean difference ($M=5.95$ vs. $M=5.74$; $t=5.74$, $p<.01$) in the process failure, whereas this difference was negative in outcome failure situation ($M=4.63$ vs. $M=5.39$; $t=-22.38$, $p<.01$). Meaning, the value for expectation update was significantly higher with empowerment than with no empowerment ($t=22.38$). This inconsistency was also seen for complaint motive ($t=4.03$ in process failure and $t=-17.25$ in outcome failure).

Therefore, hypothesis H3.3²⁹ was only partially supported as there were differences only for three of the seven consumer outcomes. These results appear to suggest that an empowerment leads to higher levels of all consumer outcomes in outcome failure except switching intent which was lower with empowerment. Also, higher levels of both expectation and repurchase intent could be suggesting that there will be a greater possibility of repurchase if customers are convinced that the service standard is going to improve in future. This could also be suggesting that customers expect a service with 'no failure' in future.

²⁹ H3.3. The effects of **empowerment** (no empowerment versus empowerment) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

Table 6-22: Mean comparisons for empowerment (not empowered versus empowered) across failure types

Dependent variable	Process Failure			Outcome Failure		
	Not Empowered	Empowered	t-value	Not empowered	Empowered	t-value
Repurchase intent	3.4183	4.0105	-11.515 (p<.01)	3.0130	3.6576	-20.524 (p<.01)
Expectation update	5.9538	5.7405	5.783 (p<.01)	4.6331	5.3866	-22.384 (p<.01)
Complaint motive	5.1240	4.9308	4.036 (p<.01)	4.4264	4.9696	-17.246 (p<.01)
Overall satisfaction	4.0356	4.2390	-3.567 (p<.01)	3.6692	3.9803	-9.751 (p<.01)
Switching intent	4.1712	4.1117	1.434 (p>.05)	4.1596	3.9111	9.521 (p<.01)
Enhanced loyalty	3.4495	3.6137	-3.126 (p<.01)	2.8514	3.5215	-22.612 (p<.01)
WoM referral	3.6606	3.8546	-4.557 (p<.01)	3.7041	3.9419	-8.532 (p<.01)

Note: Corresponding levels of significance for mean difference are presented in parenthesis below the t-values.

However, these results were obtained when empowerment served as a service recovery action. A number of other variables, for example, explanation and empathy with empowerment are not incorporated in this study and could yield differential outcomes. An exploration of the effect of other possible recovery actions on consumer outcomes could be interesting for future research. These issues are further discussed in the Chapter Seven of this thesis.

Hypothesis H3.4³⁰ posited that the effects of type of compensation on consumer outcomes will not be similar in both process failure and outcome failure. The process to test this hypothesis was identical to that used to test the hypothesis H3.1 through to H3.3. The results are summarised in Table 6-23 (page 170). The results of the t-tests show that the differences in consumer outcomes were significant with refund (versus replacement) with the exception of WoM referral ($M=3.75$ vs. $M=3.80$, $t=-1.43$ $p>.05$) in process failure suggesting that WoM referral remains the same with either type of compensation. In outcome failure however, customers preferred a refund to the free service (replacement) ($M=3.96$ vs. $M=3.71$, $t=9.12$ $p<.01$).

There is inconsistency in results for expectation update and complaint motive across failure types. The mean values for both of these variables were higher with refund in outcome failure but lower in process failure. Increased expectation in process failure with replacement seems to suggest that customers expect improvement in service in their future visits rather than experiencing service failure again and accepting replacement. However, lower expectation with replacement in outcome failure is possibly because customers expect hotels to pay them back (refund) when they perceive the final outcome as below expectation (i.e., outcome failure).

At this point, it is important to note that ease of access to a competitor (i.e., another organisation who provides similar service) for a customer was not incorporated within this study. This may mean the decision whether to accept a refund or a free booking next time could largely depend on availability of an alternative service provider. If alternatives are not available, the preference for a refund (over replacement) may not necessarily occur and this needs to be explored in future research.

³⁰ H3.4 The effects of types of **compensation** (refund versus replacement) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

Table 6-23: Mean comparisons for types of compensation (refund versus replacement) across failure types

Dependent variable	Process Failure			Outcome Failure		
	Refund	Replacement	t-value	Refund	Replacement	t-value
Repurchase intent	3.9005	3.6806	4.304 (p<.01)	3.4579	3.2692	5.885 (p<.01)
Expectation update	5.7313	5.9028	-4.766 (p<.01)	5.2401	4.8492	11.388 (p<.01)
Complaint motive	4.8714	5.1231	-5.413 (p<.01)	4.8280	4.6167	6.624 (p<.01)
Overall satisfaction	4.3590	3.9854	4.708 (p<.01)	4.0361	3.6468	12.283 (p<.01)
Switching intent	4.0768	4.1856	-2.698 (p<.01)	3.9839	4.0648	-3.093 (p<.01)
Enhanced loyalty	3.6910	3.4264	5.191 (p<.01)	3.2945	3.1363	5.200 (p<.01)
WoM referral	3.7490	3.8083	-1.428 (p>.05)	3.9619	3.7087	9.118 (p<.01)

Note: Corresponding levels of significance for mean difference are presented in parenthesis below the t-values.

WoM referral seems to vary with type of compensation only in outcome failure ($p < .01$) and not in process failure ($p > .05$) suggesting that customers are more likely to recommend service provider to other if they are compensated with refund after experiencing an outcome failure.

These results suggest a refund does not always help when something goes wrong in the service process (process failure). Rather, customers prefer to complete the service consumption process with the available alternative service (replacement) instead of stopping consumption in the middle of the process by accepting tangible benefits (refund). Another possible explanation is that the influence of other factors such as lack of time to search for alternative service providers, rapport with the current service firm and price. Chapter Seven explores on these issues more comprehensively, and provides suggestions to future research to incorporate these issues while identifying the differences in consumer outcomes.

Altogether, although the differences in consumer outcomes were statistically significant between refund and replacement other than WoM in process failure: Mean contrasts show that significant differences for other variables were not in same direction, that is, some were improved while others were deteriorated with service recovery actions. Thus, the variation was not identical in both process and outcome failure as posited in the hypothesis. Therefore, Hypothesis 3.4 was also only partially supported (See Appendix D on page 298). The lack of support for this hypothesis further confirms that managers should not ignore the existence of a typology of service failure while developing their service recovery strategies. More discussion on managerial implications of existence of the type of service failure is included in Chapter Eight.

6.8 Moderating effects of recovery action across failure types

The moderating effects (two-way interaction effects) of service recovery actions on consumer outcomes across type of failure were analysed to test the hypothesis H4.1.³¹ This hypothesis posited that the moderating effects of service recovery actions on consumer outcomes will be identical across failure types.

³¹ H4.1 The two-way interaction effects of services recovery actions (compensations, empowerment, apology and response speed) on: a) repurchase intent b) expectation update c) complaint motive d) overall satisfaction e) switching intent f) enhanced loyalty and g) WoM referral will be identical in both process failure and outcome failure.

Both multivariate (MANOVA) and univariate (ANOVA) analyses were conducted in order to test this hypothesis. MANOVA tests examined two-way interaction effects amongst independent variables: magnitude of speed; empowerment; apology; and type of compensation. Univariate tests examined the impact of recovery actions on each of the seven consumer outcome.

In the process failure situation, the multivariate effect of speed and empowerment was significant (Wilks'=.901, $F=39.40$, $p<.01$) on dependent variables. Similarly there was a significant interaction effect of speed and apology (Wilks'=.931, $F=28.72$, $p<.01$), speed and compensation (Wilks'=.962, $F=15.06$, $p<.01$), empowerment and apology (Wilks'=.941, $F=24.27$, $p<.01$), empowerment and compensation (Wilks'=.989, $F=4.12$, $p<.01$), and apology and compensation (Wilks'=.938, $F=25.70$, $p<.01$) on the set of independent variables (see Table 6-24).

Table 6-24: Interaction effects of service recovery actions

Effect	d.f.	<----- Process ----->			<----- Outcome ----->		
		Wilks'	F	Sig.	Wilks'	F	Sig.
speed * empowerment	7	.907	39.395	$p<.01$	.925	91.116	$p<.01$
speed * apology	7	.931	28.722	$p<.01$	.951	57.673	$p<.01$
speed * compensation	7	.962	15.059	$p<.01$	.942	68.746	$p<.01$
empowerment * apology	7	.941	24.268	$p<.01$	.862	179.451	$p<.01$
empowerment * compensation	7	.989	4.116	$p<.01$	.995	5.767	$p<.01$
apology * compensation	7	.938	25.702	$p<.01$	.943	67.928	$p<.01$

The results were significant in outcome failure as well. Significant differences were observed in the interaction of speed and empowerment (Wilks'=.925, $F=91.12$, $p<.01$) on speed and apology (Wilks'=.951, $F=57.67$, $p<.01$), speed and compensation (Wilks'=.942, $F=68.75$, $p<.01$), empowerment and apology (Wilks'=.862, $F=179.45$, $p<.01$), apology and compensation (Wilks'=.943, $F=67.93$, $p<.01$) and empowerment and compensation (Wilks'=.995, $F=5.77$, $p<.01$).

When ANOVAs were run, mixed results were obtained across failure types. The differences in consumer outcomes with all possible combinations of two-way

interactions shall now be discussed. First, speed and empowerment significantly interacted for all independent variables in outcome failure (Table 6-25, page 174). The interaction effect was also significant in process failure for variables other than expectation update ($F=3.13$; $p>.05$) and enhanced loyalty ($F=2.97$; $p>.05$).

Second, the interaction effect of speed and apology was not significant for overall satisfaction ($F=2.81$; $p>.05$) in an outcome failure whereas it was significant in process failure ($F=5.45$; $p<.05$). There was the significant interaction effect only on repurchase intent and overall satisfaction in process failure.

Third, when speed interacted with compensation, the difference in overall satisfaction was insignificant in both failure types. The difference in complaint motive was insignificant in process failure and difference in switching intent was insignificant in outcome failure.

Fourth, all consumer outcomes other than overall satisfaction were significantly different when empowerment and apology interacted in process failure. In outcome failure, the effects on enhanced loyalty and repurchase intent were insignificant.

Fifth, the effect of empowerment and compensation was only significant for complaint motive and switching intent in process failure, and expectation update and WoM referral in outcome failure.

Sixth, the interactions of apology and compensation were insignificant only on expectation update in process failure and on repurchase intent in outcome failure. Together, the interaction effects were not identical for all dependent variables in both types of failure and therefore hypothesis H4.1 was only partially supported.

Here, it should be noted that analysing the results of interaction effects of variables only suggest whether the presence of one variable makes any difference on the effects of another variable. One potential limitation of the result obtained from the interaction effect is therefore that it does not allow researchers to confirm whether the significant differences with interaction effects are leading either to an improvement or to a deterioration in outcomes.

Table 6-25: Univariate interaction effects of recovery actions on consumer outcomes

Variable	speed* empowerment		speed* apology		speed* compensation		empowerment* apology		empowerment* compensation		apology* compensation	
	Process	Outcome	Process	Outcome	Process	Outcome	Process	Outcome	Process	Outcome	Process	Outcome
Repurchase intent	18.380 (p<.01)	273.918 (p<.01)	108.726 (p<.01)	4.619 (p<.05)	15.587 (p<.01)	17.648 (p<.01)	11.351 (p<.01)	3.757 (p>.05)	0.141 (p>.05)	0.005 (p>.05)	71.099 (p<.01)	2.092 (p>.05)
Expectation update	3.128 (p>.05)	51.817 (p<.01)	.757 (p>.05)	263.297 (p<.01)	14.404 (p<.01)	287.347 (p<.01)	16.891 (p<.01)	965.892 (p<.01)	2.516 (p>.05)	20.557 (p<.01)	0.447 (p>.05)	28.562 (p<.01)
Complaint motive	11.255 (p<.01)	112.707 (p<.01)	1.501 (p>.05)	45.491 (p<.01)	2.524 (p>.05)	57.044 (p<.01)	1.776 (p<.01)	495.423 (p<.01)	5.997 (p<.05)	.063 (p>.05)	4.858 (p<.05)	49.189 (p<.01)
Overall satisfaction	14.037 (p<.01)	238.876 (p<.01)	5.452 (p<.05)	2.813 (p>.05)	1.228 (p>.05)	71.992 (p>.05)	.679 (p>.05)	15.955 (p<.01)	1.554 (p>.05)	.620 (p>.05)	12.685 (p<.01)	91.534 (p<.01)
Switching intent	31.944 (p<.01)	7.504 (p<.01)	.209 (p>.05)	24.145 (p<.01)	17.385 (p<.01)	.116 (p>.05)	16.943 (p<.01)	52.178 (p<.01)	14.576 (p<.01)	0.032 (p>.05)	7.857 (p<.01)	184.533 (p<.01)
Enhanced loyalty	2.968 (p>.05)	238.017 (p<.01)	1.675 (p>.05)	7.074 (p>.05)	70.597 (p<.01)	1.573 (p<.01)	42.919 (p<.01)	1.217 (p>.05)	0.617 (p>.05)	1.757 (p>.05)	17.806 (p<.01)	39.214 (p<.01)
WoM referral	75.416 (p<.01)	19.294 (p<.01)	.944 (p>.05)	74.806 (p<.01)	30.415 (p<.01)	19.231 (p<.01)	33.938 (p<.01)	9.312 (p<.01)	0.010 (p>.05)	12.280 (p<.01)	90.235 (p<.01)	6.865 (p<.10)

Note: Corresponding F-values are presented in each cell with level of significance in parenthesis.

The interpretation of interaction effects in the following sections will mainly refer to “significant differences” in dependent variables. This expression will not identify whether the dependent variable was improved (or deteriorated) with an interaction. In some instances the significant differences are referred to as “improvement” in dependent variables. However this expression will be purely based on the assumption that the direct effects of each service recovery actions had generally shown “improvement” in consumer outcomes as reported in Section 6.4 and 6.7. It may be appropriate to make an assumption that the significant interaction effects of variables are more likely to bring an improvement in dependent variables if the interacting variables had showed improvement in dependent variables independently (that is, direct effect).

Analysing the results in Table 6-25 (page 174), it appears that the combination of speed and empowerment is more effective service recovery strategy because the difference in all dependent variables is significant at least at the level $p < .10$ in both types of failure. However, if the significant differences in consumer outcomes are needed only in outcome failure, a combination of apology and speed also appears to be a good strategy. Considering the improvement in outcomes with direct effects of both apology and speed in section 6.7, organisations experiencing only outcome failure can bring significant changes in customer outcomes without empowering service staff (organisational actions) provided that they (i.e., ‘not empowered’ employees) handle the situation with a proper apology and a quick response (speed). This also suggests that employee actions (apology and speed) are more effective in bringing significant changes (possibly an improvement) in consumer outcomes as compared to organisational actions (empowerment and compensation) in outcome failure. This assumption could also be helpful in explaining the important role of front office staff.

However these are only assumptions and examining these issues is beyond the scope of this study because this study only intended to identify if there are any differences in consumer outcomes with interaction effects of service recovery actions. That is, this study does not intend to confirm whether the significant difference with interaction effects causes improvement in consumer outcomes. The significant difference could also be deterioration. Confirmation of direction of these differences (whether improved

or deteriorated) is possible with mean comparisons. Future studies could continue the research into this interesting avenue, that is, the direction of interaction.

Further, if overall satisfaction is not of a concern, the combination of empowerment and apology also appears to be a good strategy in process failure. The combination of empowerment and type of compensation does not seem to be making a difference in either type of service failure. Since the outcomes were generally improved with direct effect of service recovery action (Section 6.4), these two way significant effects could be indicating that the ill effects of slow action (speed) and the absence of an apology cannot be reduced when an empowered employee offers compensation. That is, regaining customer support through a service recovery strategy could be difficult once a service failure is experienced.

This seems to support the findings of existing studies (e.g., Schoefer and Ennew, 2005) suggesting that meeting customer expectations in the first time service performance (i.e., without failure) is better than attempting service recovery after a service failure. Further, a combination of apology and compensation was significant for repurchase intent in process failure but not in outcome failure, and this suggests that apology and compensation together can help to cool down frustrated customers who experience process failure. However, this could be perceived as a farewell to the customer (i.e., it may improve the perception of poor service which has already been performed but not enough to convince the customer to continue future transactions) when the final outcome of the service does not meet expectations (outcome failure) and therefore, the customer may not necessarily repurchase. Again, these are just assumptions and therefore a significant difference may not necessarily be indicating an improvement in consumer outcome. Alternatively, it could be indicating deterioration.

6.9 Three-way interactions across failure types

In order to test Hypothesis H4.2³², it was necessary to examine three-way interaction effects amongst service recovery actions. This hypothesis posited that the three-way

³² H4.2 The three-way interaction effects of services recovery actions (compensations, empowerment, apology and response speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.

*Four combinations for a three-way interactions were possible (see Table 6-26, page 172).

interaction effect of service recovery actions on consumer outcomes will not be similar in both process failure and outcome failure.

Multivariate tests (i.e., MANOVAs) were conducted to examine three-way interaction effect of service recovery actions on consumer outcomes. Further, univariate analysis (i.e., ANOVA) was carried out to examine the interaction effect on each dependent variable. Table 6-26 includes a summary of the results of the multivariate analysis for all three-way combinations of independent variables. Interestingly, all three-way interaction effects of speed, empowerment, compensation and apology were significant in both process and outcome failures. This suggests that recovery strategies that involve a combination of any three service recovery actions are able to make a significant difference in overall consumer outcomes.

Table 6-26: Multivariate interaction effects of recovery actions on consumer outcomes

Failure type	Effect	Wilks'	F	d.f.	Error d.f.	Sig.
Process	speed * empowerment * apology	.964	14.306	7	2699	.000
	speed * empowerment * compensation	.988	4.670	7	2699	.000
	speed * apology * compensation	.983	6.846	7	2699	.000
	empowerment*apology *compensation	.960	16.222	7	2699	.000
Outcome	speed * empower * apology	.929	85.473	7	7819	.000
	speed * empower * compensation	.980	22.356	7	7819	.000
	speed * apology * compensation	.953	54.829	7	7819	.000
	empower * apology * compensation	.970	34.417	7	7819	.000

Further, univariate ANOVAs were conducted to investigate the three-way interaction effects of independent variables on each dependent variable: repurchase intent; expectation update; complaint motive; overall satisfaction; switching intent; enhanced loyalty; and WoM referral. Again, failure type served as the grouping variable in this test (see Table 6-27).

The univariate effect of speed and type of compensation combined with apology on

repurchase intent was significant only in outcome failure ($F=37.89$, $p<.01$) but not in process failure ($F=2.76$, $p>.05$), but when combined with empowerment, the interaction effect was insignificant in both types of failure (Table 6-27). However, three-way interactions in the absence of a type of compensation were significant in both process failure ($F=25.41$, $p<.01$) and in outcome failure ($F=134.40$, $p<.01$).

Table 6-27: Univariate interaction effects of service recovery actions on repurchase intent

Failure Type	Interacting Variables	Sum of Square	d.f.	Mean Square	F	Sig.
Process	speed * empowerment * apology	34.185	1	34.185	25.413	.000
	speed * empowerment * compensation	.374	1	.374	.278	.598
	speed * apology * compensation	3.708	1	3.708	2.756	.097
	empowerment*apology*compensation	38.072	1	38.072	28.303	.000
Outcome	speed * empowerment * apology	194.186	1	194.186	134.396	.000
	speed * empowerment* compensation	.063	1	.063	.043	.835
	speed * apology * compensation	54.743	1	54.743	37.888	.000
	empowerment*apology*compensation	5.473	1	5.473	3.788	.052

Combinations other than speed, empowerment and compensation, were insignificant in both failure types ($p>.05$) indicating that the inclusion of a third recovery action does not make any difference in the effects of two-way interactions. For example, compensation would be appreciated no matter whether it is offered by frontline employee or by a senior staff member (as this was the survey context). In other words, customers are more concerned about what they receive, rather than who offered it. Alternatively, consumer repurchase intent could be significantly changed (either improved or deteriorated) with compensation irrespective of its type (refund or replacement).

All three-way interactions among service recovery actions were significant in outcome failure for expectation update (Table 6-28). In process failure, however, the combination of speed and compensation were significant with empowerment ($F=6.76$, $p<.01$) and apology ($F=9.98$, $p<.01$). Further, significant differences in all four sets of three-way interactions in outcome failure suggest that significant changes on consumer

outcome are possible with multiple service recovery action.

Table 6-28: Univariate interaction effects of service recovery actions on expectation update

Failure types	Interacting variables	Sum of square	d.f.	Mean Square	F	Sig.
Process	speed * empowerment * apology	.404	1	.404	.476	.491
	speed * empowerment * compensation	5.740	1	5.740	6.758	.009
	speed * apology * compensation	8.473	1	8.473	9.976	.002
	empowerment * apology * compensation	.330	1	.330	.389	.533
Outcome	speed * empowerment * apology	20.439	1	20.439	17.512	.000
	speed * empowerment * compensation	71.255	1	71.255	61.051	.000
	speed * apology * compensation	41.349	1	41.349	35.427	.000
	empowerment * apology * compensation	69.582	1	69.582	59.617	.000

When complaint motive served as the dependent variable, three-way interactions of compensation with any combination (that is, speed, empowerment and apology) were insignificant in process failure. In other words, the difference in complaint motive was significant only when compensation was not considered in three-way effects ($F=9.13$, $p<.01$) (Table 6-29).

Table 6-29: Univariate interaction effects of service recovery actions on complaint motive

Failure types	Interacting variables	Sum of square	d.f.	Mean Square	F	Sig.
Process	speed * empowerment * apology	12.941	1	12.941	9.134	.003
	speed * empowerment * compensation	.554	1	.554	.391	.532
	speed * apology * compensation	2.246	1	2.246	1.585	.208
	empowerment * apology * compensation	3.92	1	3.92	.000	.999
Outcome	speed * empowerment * apology	1.379	1	1.379	1.102	.294
	speed * empowerment * compensation	75.574	1	75.574	60.389	.000
	speed * apology * compensation	157.715	1	157.715	126.025	.000
	empowerment * apology * compensation	.185	1	.185	.148	.701

#note: p-values with significant differences are highlighted.

This result puts forward two possibilities. Firstly, only speed, empowerment and apology, and not the type of compensation, impact complaint motive. If so, this possibly is because either offering compensation might be construed by the customer as an indication to remain silent (not to complain) or the customer has no preference for refund or replacement (as the compensation was varied with refund versus replacement) as adding compensation did not make any difference ($p > .05$, $p > .05$, $p > .05$).

Secondly, consumer responses differ with speed of response by an empowered employee and an apology ($p < .01$) rather than by compensation ($p > .05$, $p > .05$, $p > .05$). If the significant difference was in favour of the organisation (i.e., an improvement), it could suggest that offering compensation is viewed as acknowledgement of the problem as well as an expression that the problem is not going to be fixed (compensation is offered instead) in the service delivery process (process failure).

In outcome failure, speed interacted significantly with compensation when combined with a) empowerment ($F = 60.39$, $p < .01$) and b) apology ($F = 126.02$, $p < .01$). This implies that when the final outcome of service performance is less than the expected level (outcome failure), consumer's complaining intention can vary by applying either empowerment or apology together with speed and compensation. If significant difference is leading to less complaining, it can be interpreted that consumer are less likely to complain if they are compensated quickly (with speed) and are less concerned about who (empowered employee or from senior management) and how (apologises or not) they are compensated. These results could guide managers on how to proceed in a service failure situation if they want customers to raise their voice about an unsatisfactory service experience.

There seems to be a contradiction in the literature about complaint management. One stream suggests that customers should be encouraged to complain in order to fill the gap between managerial recovery actions and customer perceptions of service recovery performance (e.g., Keaveney, 1995). Another stream suggests that consumer's complaint motives are negatively associated with satisfactions and loyalty. Industry practitioners, knowing its negative impact on consumer loyalty, would be unlikely to leave the problem unsolved only to receive customer complaints (e.g., Kau and Loh, 2006). These issues need to be explored in future research in regard to the circumstances when the complainants should or should not be encouraged to complain.

Furthermore, when overall satisfaction served as the dependent variable, the interaction effect between empowerment, compensation and apology was significant ($F=7.86$, $p<.01$). All other three-way interactions were insignificant (Table 6-30).

Table 6-30: Univariate interaction effects of service recovery actions on overall satisfaction

Failure Type	Interacting Variables	Sum of Squares	d.f.	Mean Square	F	Sig.
Process	speed * empowerment * apology	.010	1	.010	.005	.942
	speed * empowerment * compensation	1.046	1	1.046	.579	.447
	speed * apology * compensation	.330	1	.330	.183	.669
	Empowerment *apology *compensation	14.181	1	14.181	7.857	.005
Outcome	speed * empowerment * apology	230.417	1	230.417	145.71	.000
	speed * empowerment * compensation	34.961	1	34.961	22.109	.000
	speed * apology * compensation	58.139	1	58.139	36.766	.000
	empowerment *apology*compensation	50.350	1	50.350	31.841	.000

If this majority of insignificant interaction effects in process failure is indicating a “no difference” in consumer outcomes, then it is suggesting that overall satisfaction is hard to achieve once the service has failed. This is consistent with the findings of existing studies (e.g., Parasuraman, 1991; Kau and Loh, 2006) that consumer satisfaction is higher in non-failed situations than in failure recovery situations. These results tend to indicate that non-failed situations are better than failed situations in regard to overall consumer satisfaction.

Interestingly, three-way interaction effects for this variable showed contrasting results in an outcome failure situation. Unlike process failure, effects of speed and empowerment were significant in outcome failure when combined with apology ($F=145.71$, $p<.01$) and compensation ($F=22.11$, $p<.01$). The effects of apology and compensation were significant when combined with speed ($F=36.77$, $p<.01$) and empowerment ($F=31.84$, $p<.01$) in outcome failure.

If the significant interaction effects in outcome failure relates to the improvements in consumer outcomes, it seems to suggest that overall customer satisfaction can be

achieved with an appropriate recovery strategy in outcome failure, but less so in process failure. This result also clarifies the conflicting results of past studies, with some studies supporting the existence of recovery paradox (e.g., Michel, 2001; Smith and Bolton, 2002), and others denying the existence of a recovery paradox (e.g., Hocutt et al., 2006; Maxham and Netemeyer, 2002). Recovery paradox refers to situations where the recovered customer's satisfaction actually exceeds the satisfaction of those customers who have not encountered service failure (Michel, 2001). More discussion on the recovery paradox is included in Chapter Seven.

Further, the interaction effects for switching intent were similar across both failure types (Table 6-31). While combined effects of speed with empowerment and compensation were insignificant, the effects of all other combinations were significant in both failure types. All the combinations, in which the significant three-way interaction appeared, had the presence of apology as one of three variables. Together, all significant interactions involving apology suggest that apology is an important driver among service recovery actions to impact on switching intent.

Table 6-31: Univariate interaction effects of service recovery actions on switching intent

Failure Type	Interacting Variables	Sum of Square	d.f.	Mean Square	F	Sig.
Process	speed * empowerment * apology	5.989	1	5.989	5.880	.015
	speed * empowerment * compensation	.830	1	.830	.815	.367
	speed * apology * compensation	10.974	1	10.974	10.775	.001
	empowerment * apology * compensation	6.103	1	6.103	5.993	.014
Outcome	speed * empowerment * apology	49.711	1	49.711	45.557	.000
	speed * empowerment * compensation	3.056	1	3.056	2.801	.094
	speed * apology * compensation	114.262	1	114.262	104.713	.000
	empowerment * apology * compensation	5.927	1	5.927	5.431	.020

#note: p-values with insignificant differences are highlighted.

Comparing these results with the results of the three-way interaction effects of recovery actions on repurchase intent (see Table 6-27, page 178), it appears that repurchase intent and switching intent both vary with service recovery actions. This means that

those who decide not to repurchase from an existing provider are likely to switch to a competitor. In other words, less frequent repurchases does not necessarily mean that they have reduced the service consumption, instead, they may maintain the rate of service consumption by purchasing service from another provider. Therefore, organisations having customers that make purchases less frequently are at risk of losing market share and should not assume that the overall market is declining.

The interaction effect of speed, empowerment and compensation was, however, not significant in both process failure ($p>.05$) and outcome failure ($p>.05$) (Table 6-31). This insignificant difference suggests that adding a third variable does not impact on the results of two-way interactions.

When enhanced loyalty was kept as a dependent variable, the univariate test showed the insignificant effect of both speed and compensation when interacted with empowerment and apology (Table 6-32). However, the interaction of the combination of empowerment and apology was significant with speed ($F=6.46$, $p<.01$) and compensation ($F=4.94$, $p<.05$).

Table 6-32: Univariate interaction effects of service recovery actions on enhanced loyalty

Failure Type	Interacting Variables	Sum of Square	d.f.	Mean Square	F	Sig.
Process	speed * empowerment * apology	10.571	1	10.571	6.456	.010
	speed * empowerment * compensation	3.833	1	3.833	2.341	.126
	speed * apology * compensation	1.818	1	1.818	1.110	.292
	empowerment * apology * compensation	8.088	1	8.088	4.939	.026
Outcome	speed * empowerment * apology	58.777	1	58.777	39.301	.000
	speed * empowerment * compensation	31.250	1	31.250	20.895	.000
	speed * apology * compensation	27.213	1	27.213	18.196	.000
	empowerment * apology * compensation	18.612	1	18.612	12.445	.000

If the significant difference occurred with improvement (not with deterioration) in consumer outcomes, this result would suggest that loyal customers expect quick rectification of a problem with an apology and empowerment ($F=6.46$, $p<.01$) rather than being offered compensation in process failure situations. Unlike the process of

service delivery, if customers' perception of the final outcome of service performance is negative (outcome failure), they do expect compensation along with other recovery activities.

The insignificant effects on enhanced loyalty in process failure suggest that loyal customers may be less concerned about the disturbances in the process of service delivery (as the loyalty was not different). Again, the significant interaction effects on loyalty in outcome failure appear to suggest that loyal customers do not take process failures seriously but they do expect the provider to act to rectify the problem if outcome of service is unpleasant (outcome failure).

Another possible interpretation of this result could be linked to the fact that loyalty builds over time through multiple service encounters and therefore loyal customers are generally familiar with the service delivery process. It may also mean that they are likely to foresee the possibility of process failure. As such, loyal customers, being in a relationship for a while, do not rate process failure as a serious problem. As a result, recovery activities are less influential on loyalty (insignificant effect on loyalty). Another possible reason would be that the loyal customer's awareness of attribution of blame, that is, the perception that the reason for failure was beyond the control of the service provider. An investigation of the influence of other variables such as who is to be blamed, and how the explanation from staff impact customers' perception of service recovery attempt, would be interesting for future research.

In outcome failure, the effect on loyalty was significant in all three-way interaction effects. If this significant difference is due to an improvement in consumer outcomes, it suggests that loyal customers keep patient in process failure and that service activities in outcome failure enhance loyalty. Within this study, however, the level of loyalty prior to the failure is not known. Since the investigation of customer loyalty without a failure was beyond the scope of this study, it offers an opportunity for the future research. As such, analysing difference with levels of customer loyalty in different situations (e.g., prior to the failure, after the failure, and after the recovery activity) would be able to provide a solid contribution to the theory. This issue is also applicable to other consumer outcomes and is discussed further in Chapter Eight.

In regard to the WoM referral, all three-way interactions were significant in both types of failure. Again, if these significant differences are related to improvement in consumer outcomes, these results seem to suggest that, although other consumer outcomes (e.g., switching intent) could be hard to improve, WoM referral can be significantly improved (Table 6-33).

Table 6-33: Univariate interaction effects of service recovery actions on WoM referral

Failure Type	Interacting Variables	Sum of Square	d.f.	Mean Square	F	Sig.
Process	speed*empowerment *apology	14.900	1	14.900	16.834	.000
	speed * empowerment *compensation	10.108	1	10.108	11.420	.001
	speed*apology*compensation	8.731	1	8.731	9.865	.002
	empowerment *apology * compensation	9.779	1	9.779	11.049	.001
Outcome	speed * empowerment * apology	310.959	1	310.959	335.002	.000
	speed * empowerment * compensation	8.697	1	8.697	9.369	.002
	speed * apology * compensation	16.740	1	16.740	18.034	.000
	empowerment * apology *compensation	48.236	1	48.236	51.965	.000

Therefore, customers are likely to recommend the service provider to others after a service recovery effort. This is possibly because WoM does not involve any financial risk and uncertainty, which are possibly more likely to occur in other consumer outcomes. For example, service switching can be associated with financial risk (switching cost) and complaining can be associated with social risk. The possibility of a customer's risk perception is not incorporated within this study and therefore, future research is needed to explore the influence of risk perception on service recovery effort.

Overall, the impacts of service recovery actions on individual consumer outcomes are complex and there is no any one specific combination of service recovery actions for effective service recovery strategy, which can be generalised for all consumer outcomes. Further, the effects of combination of recovery actions were not generally similar across failure types. This suggests that a standardised service recovery strategy is not applicable to both types of failure. Therefore, organisations need more adaptive approach rather than the standardised approach in developing service recovery strategy.

The results also indicate that the effects of service recovery actions are often only significant on specific consumer outcomes, that is, not the full range of consumer outcomes. Therefore, the choice of any one combination of service recovery actions would vary depending on which specific consumer outcome is of more concern to the service provider.

One most critical issue emerging from the analysis is that a limited understanding of the types of service failure could potentially lead to the difficulty in developing a successful service recovery strategy. As has been identified in Hypotheses H1 and H2, the effects of recovery strategy on overall service failure were generally significant; the analysis across failure type (Hypothesis H3 and H4) indicated that the significant effects that appeared in the overall service failure situation were primarily caused by the significant effects of recovery actions on consumer outcomes in outcome failure and not in process failure.

This latter result might suggest that the findings of past studies in the service recovery area are possibly not generalisable. Instead, they need to be replicated across types of service failure before generalising their research findings. These issues are further discussed in Chapter Seven. A brief summary of hypothesis support is included in Table 6-34. More comprehensive discussion in regards to the hypotheses support obtained from statistical analysis within this chapter is included in Appendix D on page 294.

Table 6-34: Brief summary of hypothesis support

Effect Type	Hypothesis	Effect Variable	Result
Overall direct effect	H1.1	Speed (low versus high)	Supported
	H1.2	Apology (no apology versus apology)	Supported
	H1.3	Type of compensation (refund versus replacement)	Supported
	H1.4	Empowerment (not empowered versus empowered)	Supported

Table 6-33: Brief summary of hypothesis support (Continued)

Overall two-way interaction effect	H2.1a	Between Response speed and compensation	Partially Supported*
	H2.1b	Between empowerment and compensation	Partially Supported*
	H2.2a	Between apology and compensation	Partially Supported*
	H2.2b	Between apology and empowerment	Partially Supported*
	H2.3	Between apology and speed	Partially Supported*
	H2.4	Between empowerment and compensation	Partially Supported*
Overall three-way effect	H2.5	Amongst speed, apology, empowerment and compensation	Partially Supported*
Direct effect across failure types	H3.1	Magnitude of speed (low versus high)	Partially Supported*
	H3.2	Apology (no apology versus apology)	Partially Supported*
	H3.3	Type of compensation (refund versus replacement)	Partially Supported*
	H3.4	Empowerment (not empowered versus empowered)	Partially Supported*
Two-way effects across failure types	H4.1	Between any two of these four: speed, apology, empowerment and compensation	Supported
Three-way effects across failure types	H4.2	Among any three of these four: speed, apology, empowerment and compensation	Supported

*Hypotheses marked as ‘Partially supported’ indicate that at least one of the sub-hypotheses is not supported. The sub-hypotheses and corresponding ‘hypothesis supports’ are included in Appendix D on page 294.

6.10 Conclusion

This chapter included the data analysis section of this thesis. The first section (Section 6.1) introduced the chapter and an overview of the relevant statistical methods used to test the proposed hypotheses (as shown in Section 3.9, page 64) was given in Section 6.2. Interpretation of statistical terms used within this thesis was provided in Section 6.3. This was followed by testing of hypotheses and presentation of the data obtained

from application of the appropriate statistical techniques. In this process, Section 6.4 included direct effects, Section 6.5 included moderating effects and Section 6.6 included three-way interaction effects of service recovery actions on consumer outcomes in overall service failure situation (i.e., when failure type was kept constant). Sections 6.7 through to 6.9 presented the results of the data analysis when failure type was kept as a grouping variable. The discussion and interpretations based on the analytical results in this chapter are presented in Chapter Seven.

Chapter Seven

INTERPRETATION AND DISCUSSION

7.1 Introduction

This chapter focuses on the interpretation of the results obtained from the data analysis in Chapter Six. Specifically, Section 7.2 includes a discussion of the direct effects of service recovery actions on consumer outcomes for overall failure and then compares the two failure types (outcome and process). Section 7.3 includes the discussion on moderating effects (two-way interactions) of the independent variables on consumer outcomes for overall failure and then compares the two failure types (outcome and process). Section 7.4 discusses the results obtained from three-way interactions of service recovery actions on consumer outcomes for overall failure and then compares the two failure types (outcome and process). Finally, Section 7.5 concludes this chapter.

7.2 Direct effects of service recovery actions

The first objective of this research was to investigate the main effect of each service recovery action (speed, apology, empowerment and compensation) on the seven consumer outcomes following a service failure experience, both for the overall failure, as well as for the two types of failure: outcome failure; and process failure. The recovery actions served as independent variables and consumer outcomes served as dependent variables within this study. The analysis included the investigation of the effects of recovery actions on each of the seven consumer outcomes. A summary of the results from the analysis (see Section 6.4 through to 6.9) are presented in Tables 7.1 and 7.2. The analysis allowed the researcher to examine hypotheses H1 and H3, as well as the various sub-hypotheses related to each of these two hypotheses. These hypotheses were related to the direct effects of service recovery action. Analysis which tested hypotheses H2 and H4, which were related to the interaction effects of service recovery actions, will be discussed later in the Sections 7.3 and 7.4 respectively.

Table 7-1: Summary of effect of independent variables on consumer outcomes in overall failure situation

Effect Type	Effect Variable	Repurchase Intent	Expectation Update	Complaint Motive	Overall Satisfaction	Switching Intent	Enhanced Loyalty	WoM Referral
Direct Effect	Speed (low versus high)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)
	Apology (no apology versus apology)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)
	Empowerment (not empowered versus empowered)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)
	Compensation (refund versus replacement)	.000 (-)	.000 (-)	.001 (-)	.000 (-)	.000 (-)	.000 (-)	.000 (-)

Note: -Numbers reflect the significance level of a direct effect.

-Statistically significant results bolded.

-t-test between recovery levels for each outcome: + indicates an improvement in the outcome; – indicates a deterioration in outcome. For example, (-) sign in compensation (refund versus replacement) means refund was preferred to replacement.

Table 7-2: Summary of effect of independent variables on consumer outcomes in process (P.F.) and outcome failure (O.F.) situations

Effect Type		Repurchase Intent		Expectation Update		Complaint Motive		Overall Satisfaction		Switching Intent		Enhanced Loyalty		WoM Referral	
	Effect Variable	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.
	Speed (low versus high)	.000 (+)	.000 (+)	ns	.000 (+)	.000 (-)	.000 (+)	ns	.000 (+)	.000 (-)	.000 (+)	ns	.000 (+)	.020 (+)	.000 (+)
	Apology (no apology versus apology)	.000 (+)	.000 (+)	ns	.000 (+)	.001 (-)	.000 (+)	.000 (+)	.000 (+)	.006 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)
	Empowerment (not empowered versus empowered)	.000 (+)	.000 (+)	.000 (-)	.000 (+)	.000 (-)	.000 (+)	.000 (+)	.000 (+)	ns	.000 (+)	.000 (+)	.000 (+)	.000 (+)	.000 (+)
	Compensation (refund versus replacement)	.000 (-)	.000 (-)	.000 (+)	.000 (-)	.000 (+)	.000 (-)	.000 (-)	.000 (-)	.007 (-)	.002 (-)	.000 (-)	.000 (-)	ns	.000 (-)

Note: -‘ns’ indicates non-significant effect.

-Abbreviations are used for process failure as P. F., and for outcome failure as O. F.

-Numbers represent the significance level of direct effect for each consumer outcome within each failure type.

-Statistically significant results are bolded.

-t-test between recovery levels within each failure type: + indicates an improvement in the outcome; – indicates a deterioration in outcome.

-Shaded pairs indicate differences in outcomes for a recovery action between failure types.

Table 7-1 summarises the direct effect of each recovery action in overall failure settings for each of the seven outcomes. It lists the significance level of the relationship, that is, whether the action influences the outcome or does not influence the outcome. The significance levels in the bold font indicate that there is a statistically significant relationship. For each service recovery action, Table 7-1 also indicates the direction of the effect based on t-test comparisons between cases of where a recovery action is not provided and where it is provided (based on results from Tables 6-2 through to 6-10). These directional effects indicate whether the inclusion of the recovery action results in an improvement to the consumer outcome or deterioration in the outcome. It does need to be identified that in six of the seven instances an 'improvement' results in the outcome increasing (i.e. repurchase intention, expectation update, complaint motive, overall satisfaction, enhanced loyalty, WoM referral) whereas in one of the seven instances, an improvement results in the outcome decreasing (i.e., switching intent).

The discussion therefore focuses on improvements and deteriorations in outcomes, rather than increases or decreases in outcomes. In addition to the literature review in Section 2.7, the following paragraph also elaborates why the higher values of six consumer outcomes within this study are assumed as an improvement and that of one outcome is a deterioration within.

Outcomes such as repurchase intent, overall satisfaction, enhanced loyalty and WoM referrals motivate existing customers to continue purchasing as well as more frequent purchases. These outcomes also contribute in attracting new customers (Blodgett et al., 1993). Further, higher customer expectations with service recovery actions ensure customers act or advocate in favour of the service provider while lower expectation in future could be related to customer perception of poor service in future. This is not an improvement in favour of the organisation as expectations remained lower even after undertaking service recovery actions. Similarly, higher complaint motive after a service recovery means an opportunity for a service provider to acknowledge inadequate service performance and consequently initiate corrective measures (Heung and Lam, 2003). Meaning, passive customers with service failure (who simply switch to another service provider without complaining) will turn into active customers with service recovery (high complaint motive after service recovery), who seek the resolution of problem and stay with the service provider.

Table 7-2 provides the same analysis as Table 7-1, but separately explores the relationships within each failure type (process failure and outcome failure). Each effect is also compared between the two failure types. This is done by comparing the similarity in relationships as being significant (or insignificant) across failure types. Differences between the effects can occur in two situations. The first is where the effect is not statistically significant for one failure type, but is statistically different for the other. For example, in the case of speed and expectation update, there is not a statistically significant result in process failure, but there is a statistically significant result in outcome failure. The second instance where differences can occur is when there is an improvement when the recovery strategy is used in one failure type, but there is deterioration when it is used in the other failure type. For example, speedy recovery results in an improvement in switching intent in process failure, but results in a deterioration of switching intent in outcome failure.

Sections (7.2.1 through to 7.2.4) examine each of the four recovery outcomes. Within these sections, instances where there are no statistically significant differences in one of the two failure settings are firstly examined. Then the discussion considers instances where statistically significant differences occur but these are in different directions. Next discussed are the cases where there are statistically significant differences in both settings, but these result in a deterioration of the outcome. Finally discussed are situations where there are statistically significant differences in both settings, but these result in an improvement in the outcome, that is, the results are consistent with theory. This comparison was made possible by examining Table 7-1 and 7.2 as these tables summarise the results obtained in Chapter Six. In Section 7.2.5, any patterns of results that arise out of this analysis are explained.

7.2.1 Effects of speedy service recovery

Speed of recovery (one of the two employee recovery actions) relates to how quickly failure is dealt with. Table 7-1 indicates that speed significantly improves (represented with ‘+’ sign) all seven consumer outcomes for overall failure (where there is no separation of process failure and outcome failure). In other words, consumer outcomes are improved when recovery actions happen quickly in an overall failure situation. This is consistent with the literature which has also found this to be the case for five of the seven consumer outcomes. Result showed support for the findings of the extant

literature that there is increase in four consumer outcomes: WoM referral (Swanson and Kelley, 2001a); loyalty (Karatepe and Ekiz, 2004); repurchase intent (Palmer et al., 2000); and overall satisfaction (Andreassen, 2000) and there is decrease in one: switching intent (Keaveney, 1995).

One of the seven consumer outcome, complaint motive, was higher with speed of recovery. As explained earlier, higher complaint motive with service recovery is considered as an improvement in favour of the organisation (Kau and Loh, 2006). This seems to suggest several possible explanations. Firstly, convenient access to the service staff increases complaining. Within the context of this study, staff offered a quick response (an employee's quick response to failure) and therefore it would have been viewed as the availability of staff for complaining. Secondly, active involvement of staff (i.e., speed) might have given the impression to the customer that the likelihood of a resolution of the problem is higher and, therefore, they might have felt it was worthwhile to complain. In other words, customers may not have preferred to raise their voice (i.e., complain) if the service staff were not ready to listen. Instead, they would possibly exit passively (or quietly) and never return to the same service provider in the future (as repurchase intent was also improved with speed as seen in Table 7-1).

This would seem to verify past studies, for example, Keaveney (1995) suggested that complaint should be taken as the opportunity to correct the service, which has previously gone wrong. If so, this interpretation can also be linked positively with the study of Shapiro and Nieman-Gonder (2006, p.139), as they proposed that "many dissatisfied customers do not complain directly to the organisation because they feel it is a hassle or they are embarrassed". They further mentioned that "organisations must encourage customers to identify themselves so the company can win them" (p.139).

Thirdly, the possibility of the effect of extraneous variables (i.e., other than service recovery actions) might have been overlooked. For example, the resolution of the problem may be perceived as being below the satisfactory level which could then trigger complaints. If so, a satisfactory service recovery encounter will be able to cool down the consumer (resulting in fewer complaints). Therefore, an examination of the moderating role of a satisfactory (versus unsatisfactory) service recovery effort could be an interesting avenue for future research. Another possibility for higher complaint motives, as discussed in Section 2.7 (page 37), is that consumers with higher switching

intentions would exit from the business relationship passively without any negative voice (Andreassen, 2001; Chebat et al., 2005). This would also mean that, as predicted by Keaveney (1995), a complaint from a customer is an indication of their willingness to repurchase, compared to the passive customers (non-complaining ones) who exit the service firm instead of raising their voice (that is, complaining).

Therefore, it can be argued that improved complaint motive with speedy recovery should not be viewed as negative consequences of recovery effort, because it helps managers to identify whether something has gone wrong while performing the service. This is possibly why McCole (2004) stated that it is important that managers are able to acknowledge that a service failure has occurred, and ensure that there are mechanisms in place to encourage complaints.

It must be noted that the interpretations made are based on improvements in multiple consumer outcomes with service recovery actions. For example, in Table 7-1, complaint intent was higher with speed and so is the repurchase intent. Thus the interpretation made here is that complaint intent and repurchase intent were both higher with speed. That is, it does not mean that complaint intent was causing high repurchases. Although it is possible to identify whether complaining causes an increase in repurchases, it is beyond the scope of the present study. In other words, the present study attempted to identify only the effects of service recovery actions on consumer outcomes and not the effects of one consumer outcome on another.

The seventh consumer outcome, expectation update, was also improved with speed. This finding is consistent with the suggestion of Lovelock et al. (2004, p.97) that, “customers have higher expectations and are more demanding when the organisation is attempting to ‘recover’ and retain a customer from a service failure situation”. From a service delivery point of view, this shows that service recovery activity increases consumer expectations creating difficulty for organisations to satisfy consumers in the future without improving service standards. However, from a customer point of view, they do not want a repetition of poor service encounter in future. This indicates that, although the speedy recovery possibly contributes in diffusing customer anger (Nguyen and McColl-Kennedy, 2003) and to a substantial reduction in the level of customer dissatisfaction (Wirtz and Mattila, 2004), it (i.e., high speed) may not be able to bring the consumer service experience to the level of satisfaction that would have been

achieved in the situation where there is no service failure experience (Maxham and Netemeyer, 2002).

Again, higher expectations in future associated with recovery speed also indicate that customers intend to remain in the business relationship (as the repurchase intent was also higher with speed), provided the service level is improved. One obvious interpretation is that customers will not increase their future expectations with low speed of recovery. This means that the organisation will not be viewed as a good service provider that cannot improve service standards and, therefore, it could be an indication of a willingness to develop a relationship with competitors. If there are no extraneous variables, speed of recovery appears to bring a non-returning customer one step closer to strengthening and maintaining an existing relationship, and customers are ready to forget an unsatisfactory service experience if the service provider is able to offer an improved service in future transactions.

However, when examining the effect of speed in the two failure settings (as seen in Table 7-2), the results were not identical to the overall failure situation. These differential results across failure types are explored below, and might explain some of the inconsistencies of existing studies.

It was identified that in three instances there were no statistically significant difference with speed for expectation update, overall satisfaction and enhanced loyalty in process failure. Thus speedy recovery does not appear to result in an improvement (or deterioration) of these outcomes in process failure. In these three instances, however, speed improved consumer outcomes in outcome failure situation. There were two instances where speedy recovery impacted on outcomes (complaint motive and switching intent), but the direction of effect differs in the two failure settings (indicated with + and – sign in Table 7-2). Both outcomes deteriorated in the process setting but improved in the outcome setting. The remaining two consumer outcomes (repurchase intent and WoM referral) are improved with speedy recovery, in both process and outcome setting. The interpretations based on these results shall now be discussed.

The insignificant difference in expectation update does indicate that recovery undertaken after a process failure would not improve consumer future expectations until after the completion of final experience. Thus the management of the outcome

failure is satisfactory (as the difference was significant in outcome failure). Likewise, overall satisfaction cannot be achieved with quicker response in process failure. Indeed, customers seek a positive result through successful service recovery in an outcome failure experience. This also appear to mean that customers remain satisfied as long as service providers, through the recovery actions, are able to ensure that the final outcome is fair to their customers, irrespective of recovery speed in the process failure experience.

Similarly, the insignificant effect on loyalty with speed in a process failure suggests that loyal customers do not become an enemy of the firm with only a few incidents of negative service encounters, provided, there is satisfactory resolution of the problem at the end (since the effect was significant in outcome failure). This finding supports extant literature where the need of multiple satisfactory service encounters is suggested to build loyalty (e.g., Ahmed, 2002). This means that loyalty is gained through long-term business relationships with the customer and it cannot be lost with one unsatisfactory service encounters (Mattila and Cranage, 2005).

From the differences in five of the seven consumer outcomes across the two failure settings (shaded area in Table 7-2), it appears that recovery actions are generally less effective in process failure settings, as in three cases there is no impact on the consumer outcomes and in one instance (complaint motive) there is deterioration in the outcome. Firms using speedy recovery to address a process failure will therefore only see improvements in consumers' repurchase intent and WoM referral. Whereas in outcome failure setting, there are improvements across all seven consumer outcomes.

Comparison of the results in three situations (overall failure, process failure and outcome failure) reconfirmed the need for speedy service recovery in overall service failure as well as for the outcome dimension of service failure. This finding takes the service recovery literature one step forward by identifying the less important impact of speed in the process dimension of service failure. Thus, the assumption of past studies about prominence of speed in all attempts of service recovery to improve satisfaction and loyalty is not empirically supported in this study. In regard to the significant effect of the high speed of recovery, this study has narrowed the boundary for the generalisability of past studies from overall service failure to the outcome dimension of service failure only.

Additionally, insignificant differences with speed of recovery on expectation update, overall satisfaction, enhanced loyalty in process failure could also mean that consumers expect service organisations to do the right thing the first time (i.e., without failure) rather than implementing service recovery strategy after a service failure experience for a customer (Zemke and Bell, 1990). Meaning, the recovery paradox is less likely to exist in process failure. This result concurs with the findings of Priluck (2003) who supported the nonexistence of the recovery paradox. The recovery paradox, as discussed in Section 6.9 (page 176), refers to situations where the recovered customer's satisfaction actually excels that of those customers who have not encountered service failure. Priluck (2003, p.40) summarised his finding as, "consumers were more satisfied with a transaction when there were no problems as opposed to when problems occurred, but were corrected".

Unlike process failure, these three outcomes (expectation update, overall satisfaction, enhanced loyalty) were significantly improved in overall service failure and in outcome failure. This seems to fit with the suggestions of existing studies (e.g., Hart et al., 1990; Hocutt et al., 2006; Maxham and Netemeyer, 2002; Michel, 2001) which supported the existence of the paradoxical effect in some instances. This means that the findings of both groups of earlier researchers, arguing the existence and non existence of paradoxical effect, were not completely correct even though they appeared to be contradictory because past studies did not specify the failure types (process or outcome) in their research settings and they attempted to generalise their findings for overall failure situations. The implication for managers in this regard is that they should not intentionally let the failure occur in the process of service delivery (process failure) with the hope that they will be able to achieve higher customer satisfaction with service recovery activity as compared to the satisfaction that would have been achieved without a failure experience (i.e., paradoxical effect).

7.2.2 Effects of apology

Table 7-1 also indicates that apology significantly effects all seven consumer outcomes for failure overall. In other words, consumer outcomes were improved when an apology was offered. This finding supports the existing literature as the impact of apology had previously been found to be significant for some consumer outcomes, although all

seven consumer outcomes were not examined in the past (e.g., Wirtz and Mattila, 2004).

When examining the effect of apology in the two failure settings (Table 7-2), it was identified that there was no statistically significant difference with offering apology for expectation update in process failure. Thus apology does not appear to result in an improvement (or deterioration) of this outcome in process failure. However, apology improved consumer outcome in outcome failure situation. In the instance where apology impacted on complaint motive, the direction differed in the two failure settings (indicated with + and – sign in Table 7-2). Complaint motive deteriorated in the process setting but improved in the outcome setting. The remaining five consumer outcomes were all improved with apology, in both process and outcome failure setting. Based on these results, the following interpretations are made.

The insignificant difference in expectation update in a process failure could mean that a simple apology may not be able to increase consumer expectations of service improvement in the future. However, in outcome failure, offering an apology appears to be able to convince customers that they could expect improvement in future service performance. This perception of the customer could be a potential barrier in service switching (that is, they will stay with service provider). It would be interesting to investigate this effect in future research, that is, whether an apology can help managers to erect exit barriers for the customer who experienced outcome failure.

The improvement in complaint motive with apology in outcome failure only could be an indication of consumer willingness to let the service representative know that a) satisfaction is not yet achieved; or b) there should not be a failure at all. It could also have been triggered by the assumption of the customer that the service delivery process is still continuing (process failure) and thus there is still room for the employee (who is actually involved in apologising) to rectify the problem. Lower complaint intent, when an apology was not offered (as it was higher with apology) could mean that the consumer had a negative perception of the service experience which was already delivered (outcome failure) and therefore nothing could be done as the process of service performance was completed (i.e., not a process failure). A second reason for this result could be that there is less likelihood of making complaints (again, as the service process is over), and a third reason, as stated in Section 3.4, could be that

customers have possibly decided not to repurchase from the current service provider any more and this could have contributed to less interest in complaining. Gathering empirical evidence in support of these possibilities (that is, how switching intent could impact on complaining) would be interesting for future research.

Since there was deterioration in complaint motive and no effect on expectation update in process failure whereas all seven consumer outcomes were improved in outcome failure, apology appears to be less effective in process failure settings as compared to outcome failure settings.

7.2.3 Effects of empowerment

Empowerment (one of the two organisational recovery actions) is the authority for the staff to deal with service failure. When an empowered employee responded to the service failure overall, all seven consumer outcomes were significantly improved (Table 7-1). In other words, consumers preferred that staff have the authority to decide on behalf the organisation rather than seeking managerial approval before responding to a service failure. These results support the existing literature where the significance of empowerment in consumer future intentions has been acknowledged (e.g., Boshoff and Leong, 1998; Carson et al., 1999).

However, examining the effect of empowerment in the two failure settings revealed that the improvement (or deterioration) in consumer outcomes were different across the failure types. In process failure, it was identified that one consumer outcome was not statistically different, two outcomes deteriorated, and the remaining four outcomes were improved with empowerment. All seven consumer outcomes were improved with empowerment in outcome failure. The interpretations based on these results shall now be discussed.

The insignificant difference in switching intent in process failure suggested that when process failure occurs, empowered employees are ‘expected’ to react and deal in a way that the problem should not be felt by the customer, that is, the problem should have been avoided in the first place. This means that when an empowered employee attempts to deal with service failure, customers do not perceive it as ‘special’; rather the recovery activity is part of their job. Whereas the improvement in switching intent in an outcome failure setting suggests that consumers see empowerment as more ‘proactive’

in this situation, as employees could not in fact deal with the causes of failure (as might occur in process failure).

The complaint motive of the customer to the 'not empowered' employee in process failure could be related to the customer's expression of dislikes about organisational policies (when the employee is not empowered). Making a complaint to an empowered employee in outcome failure seems to suggest that customers keep waiting for resolution of the problem during the process of service performance but lose their patience if the problem continues and the final outcome of service remains below expectation (outcome failure). In other words, customers are likely to make a formal complaint (complaining to a person with authority, i.e., empowerment) in outcome failure whereas informal complaints may be more likely in process failure (i.e., discussion with 'not empowered' employees about the bad service experience).

This finding is important particularly for the organisations that are constantly losing market share and yet do not receive any formal complaints from their customers. This study clearly indicates that there may be informal complaints in process failure (as the complaint intent was higher with no-empowerment in process failure). It is, therefore, up to the managers to develop procedures for the transmission of complaints from frontline service staff to management (Sutton et al., 2003). Nevertheless, formal complaints are received when there is outcome failure and employees are empowered. In fact, it will never be too late if management can develop an effective reporting procedure to the senior manager from empowered frontline employees. More rigorous investigation on the sources of formal (versus informal) complaint is, of course, a potential avenue for future research.

Deterioration in expectation update with empowerment (i.e., higher expectation in future with no empowerment) in process failure whereas its improvement in outcome failure appears to highlight that customers want better service in future from employees who are not empowered (rather than having the excuse of no authority, e.g., I am not allowed to do this). This is possibly because modern day customers are accustomed to the extra role behaviour undertaken by front office staff (i.e., going beyond the organisation's set of job performance standards) to ensure a pleasant service experience (Donavan et al., 2004). However, if the final outcome was negative (outcome failure), customers appear to expect higher service in the future with empowered staff. This

means that customers want empowered employees to be proactive next time they visit the service provider (Melhem and Irbid, 2004) in order to perform better service in the first instance rather than letting it fail and then taking recovery actions (Sutton et al., 2003).

Of the seven consumer outcomes, the deterioration in two, improvement in four, and no improvement in one suggested that empowerment is not equally effective in improving all consumer outcomes in process failure settings. Whereas this is not the case in outcome failure as all seven consumer outcomes were improved when the failure was dealt by an empowerment employee.

7.2.4 Effect of types of compensation

Considerable evidence has appeared in the service recovery literature that offering compensation improves consumer intentions towards the service provider while implementing service recovery strategy. This includes both streams of the service recovery literature: consumer outcome-based studies (e.g., Ronald et al. al., 2003); and justice-based studies (e.g., Maxham and Netemeyer, 2003). In regard to the justice-based recovery, compensation (versus no compensation) has been regarded as the most important recovery activity in improving consumer distributive justice perception (Wirtz and Mattila, 2004). The justice-based service recovery literature defines distributive justice as the consumer perception of justice to them in the overall service performance.³³

Another stream of service recovery research is consumer outcome-based. This stream focuses on how service recovery strategy improves consumer outcomes. However, in either stream of service recovery literature, there is no evidence of identifying what would be the result of service recovery strategy if it includes varying type of compensation. Thus, this research is the first to examine the variation in consumer outcomes based on types of compensation. For this purpose, two most common types of compensation (refund and replacement) frequently mentioned in literature (e.g., Kim et al., 2003; and McCole, 2004), were manipulated within this study.

³³ The justice based service recovery stream of research has received considerable attention from researchers in the recent past, for example, Hoffman and Kelley (2000); Shapiro and Nieman-Gonder (2006); Schoefer and Ennew (2005); and Sparks and McColl-Kennedy (2001).

When the effect of refund (versus replacement) was examined in overall failure, all consumer outcomes deteriorated, that is, outcomes were improved with refund as compared to replacement. These results clearly showed that refund is preferred by customers as compared to the replacement (Table 7-1). These results support the existing literature where the importance of refund as is acknowledged (e.g., Boshoff and Leong, 1998; Wirtz and Mattila, 2004).

However, examining the effect of types of compensation in the two failure settings revealed that the improvement (or deterioration) in consumer outcomes were not identical. Out of seven consumer outcomes in process failure, three were improved with refund, three were improved with replacement, and there was no effect on one consumer outcome (Table 7-2). In outcome failure, however, all seven consumer outcomes were improved with refund and deteriorated with replacement. The interpretations of these results shall now be discussed.

When the process dimension of service performance is below expectation, consumers not only want the existing service to be replaced but also want to be compensated with refund (as three outcomes were improved with each). This customer response seems reasonable because the service is still being consumed, but the delivery standard is below expectation (process failure).

The insignificant effect of type of compensation in process failure for WoM referral seems to suggest that WoM referral remains the same with both types of compensation. In addition, the lower mean values (see Table 6-8, page 149) in both types of compensation ($M=3.7$ vs. 3.8 ; out of a 7 point scale) further revealed that negative WoM is hard to improve with compensation. However, this study does not include the mean values for consumer outcomes in a 'no failure' situation and therefore only an assumption can be made that consumer intention to WoM referral is generally higher in a service setting without a failure. Within the scenarios of this study, it was manipulated that consumer intentions are not in favour of the service organisation once they experience a service failure. To identify whether the consumer outcomes are higher without a service failure, future research needs to incorporate both failed and non-failed service encounters, and then compare the differences in consumer outcomes between these two situations.

In outcome failure, however, mean comparison of refund and replacement revealed that refund was the consumer's preference over replacement (also see Table 6-23, page 170). These results were not unexpected as the outcome failure indicates that the service consumption process is completed and offering replacement of service would require the consumer to repeat the consumption process, that is, another service transaction. There could be several reasons why customers do not want the replaced service but prefer a refund. For example, customers may not be interested in receiving the same service again when they have lost faith that the service will be improved next time. The customer's need for a service may vanish by the time the first service performance is over due to other commitments. For example, a tight time schedule wherein they may be heading to catch a connecting flight, be travelling in a group, or the original intention of their trip may be over (e.g., meeting is over and no need for the conference hall any more).

Since the overall service failure situation (Table 7-1) was improved with a refund (i.e., when failure types were not differentiated), this study empirically supports existing studies, for example, Boshoff (1997), Forbes et al. (2005), Hocutt et al. (2006) and Mattila (2001). In contrast, when the failure types were differentiated, this study went a step forward in identifying the role of refund as being more important in outcome failure whereas in process failure, the role of both types of compensation is seen as identical for six of the seven consumer outcomes. Therefore, this finding indicates a need for rethinking the traditional approach (i.e., without identifying failure types) of compensating customers.

7.2.5 Summary of direct effects on consumer outcomes

The direct effect of the three recovery actions (speed, apology and empowerment) generally improved consumer outcomes in overall failure. In regards to the type of compensation, refund was generally preferred by customers as compared to replacement. There were significant differences in regards to the effectiveness of recovery actions across process failure and outcome failure, and in most instances recovery actions improved consumer outcomes.

When focusing on one specific consumer outcome, it was revealed that repurchase intent improved in both types of failure for all recovery actions other than

compensation, where consumers prefer a refund in all cases. For expectation update, the results in Tables 7-2 suggest that there are differences between the two failure types, where consumers modify expectations in outcome failure when firms act quickly, apologise or empower employees to act. There is deterioration in consumers' expectation when firms offer a replacement in outcome failure. In process failure the organisational responses are generally ineffective, i.e. there is no difference for rectifying the error quickly or offering an apology and a deterioration in expectations when employees are empowered. The only instance where there was an improvement in expectation is when a replacement is offered. Thus consumer expectations appear to be difficult to improve, using all four service recovery actions individually.

Complaint motive was generally improved with service recovery actions in outcome failure and deteriorated in process failure. In regards to the compensation, complaint intent was improved with refund in outcome failure while it was improved with replacement in process failure. Altogether, service recovery actions appear to encourage customers to report about the failure incident.

Overall satisfaction remained unchanged only in process failure with speed and was improved with refund in both failure types. In all other instances, it was improved with service recovery actions indicating a very important role of service recovery actions in achieving overall satisfaction after a service failure.

Switching intent was improved with refund and apology in both failure types, whereas it was improved with speed only in process failure and with empowerment in outcome failure. It was neither improved nor deteriorated with empowerment in process failure. Enhanced loyalty was improved with all service recovery actions in both failure types except with speed in process failure in which the effect was insignificant. In the case of type of compensation, enhanced loyalty was improved with refund. WoM referral was also improved with all recovery actions except with type of compensation where it was improved with refund in outcome failure and it did not differ in process failure.

The generally improved consumer outcomes with service recovery action found in this study also appear to broadly support the justice-based service recovery literature (e.g., Smith et al., 1999; Schoefer and Ennew, 2005). These studies suggested that apology, compensation and speed are to be considered as the important activities in improving

consumer perception of whether an organisation has done justice with them after experiencing a service failure.

7.3 Moderating effects of recovery actions

Another objective of this research was to investigate the combined effects of service recovery action on seven consumer outcomes listed in Section 2.7 on page 37 and Figure 3-1 on page 59. As indicated earlier, this research employed two types of service recovery actions: organisational service recovery actions; and employee service recovery actions. It was predicted in hypothesis H2.1 through to H2.4 (see page 69) that there will be a combined effect of service recovery actions (both organisational and employee) on post-recovery consumer outcomes. Likewise, hypothesis H4.1 predicted a combined effect of organisational and employee service recovery actions on consumer outcomes across failure types. The analyses were conducted to test these hypotheses in Chapter Six. The following sections now explore the results obtained from these analyses.

Table 7-3 summarises the moderating effects of each recovery action in overall failure settings for each of the seven outcomes. The bold font indicates that there is a statistically significant relationship, whereas abbreviation 'ns' indicates the relationship was not significant. Table 7-4 also provides the same analysis as Table 7-1, but separately explores the relationships within each failure type (process and outcome). Each effect is also compared between the two failure types.

Following sections (Section 7.3.1 through to 7.3.3) examine the effect of all combinations of the four recovery actions on consumer outcomes. Within these sections, firstly examined are instances where there are no statistically significant differences in overall failure setting. Then the discussion considers two failure settings and compares whether there are statistically significant differences that occurred in both types of service failure. Next discussed are the cases where there are statistically insignificant differences in both settings.

Table 7-3: Summary of effect of independent variables on consumer outcomes in overall failure situation

Effect Type	Effect Variable	Repurchase Intent	Expectation Update	Complaint Motive	Overall Satisfaction	Switching Intent	Enhanced Loyalty	WoM Referral
Two-way Interaction	Speed x Empowerment	.000	.000	.000	.000	ns	.000	ns
	Speed x Compensation	<u>.022</u>	.000	.000	.000	.ns	.000	ns
	Apology x Empowerment	.000	.000	.000	.000	<u>.014</u>	ns	ns
	Apology x Compensation	.009	.000	.000	.000	ns	.001	<u>.044</u>
	Speed x Apology	.000	.000	ns	.000	<u>.039</u>	.000	.000
	Empowerment x Compensation	ns	<u>.022</u>	ns	ns	ns	ns	<u>.022</u>

Note: -‘ns’ indicates non-significant effect.

-Numbers represent the significance level of interaction effect for each consumer outcome.

-Corresponding significant differences at the level $p < .01$ are represented in bold, and those at the levels $p < .05$ are underlined.

Table 7-4: Summary of effect of independent variables on consumer outcomes in process and outcome failure situations

Effect Type		Repurchase Intent		Expectation Update		Complaint Motive		Overall Satisfaction		Switching Intent		Enhanced Loyalty		WoM Referral	
	Failure Type Effect Variable	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.
Two-way Interaction	Speed x Empowerment	.000	.000	ns	.000	.000	.000	.000	.006	.000	.000	ns	.000	.000	.000
	Speed x Compensation	.001	.000	.000	.000	ns	.000	ns	ns	.000	ns	.000	.000	.000	.000
	Apology x Empowerment	.000	ns	.000	.000	.000	.000	ns	.000	.000	.000	.001	ns	.000	.002
	Apology x Compensation	.000	ns	ns	.000	<u>.028</u>	.000	.000	.000	.000	.005	.000	.000	.000	.009
	Speed x Apology	.000	<u>.032</u>	ns	.000	ns	.000	<u>.020</u>	ns	ns	.000	ns	.008	ns	.000
	Empowerment x Compensation	ns	ns	ns	.000	<u>.014</u>	ns	ns	ns	.000	ns	ns	ns	ns	.000

Note:

- ‘ns’ indicates non-significant effect.
- Abbreviations are used for process failure as P. F., and for outcome failure as O. F.
- Numbers represent the significance level of interaction effect for each consumer outcome within each failure type.
- Corresponding significant differences at the level $p < .01$ are represented in bold and those at the levels $p < .05$ are underlined.
- Shaded pairs indicate differences in outcomes for a recovery action between failure types.

7.3.1 Moderating effect of speed

This section explores the effect of speed on consumer outcomes when it is combined with the other two service recovery actions (**empowerment and compensation**). When speed was combined with empowerment in overall failure situation, it showed significant effect for five of the seven consumer outcomes (repurchase intent, expectation update, complaint motive, enhanced loyalty and overall satisfaction) (Table 7-3) whereas two consumer outcomes (switching intent and WoM referral) did not vary. The proposed hypothesis is that speed would interact with the other service recovery actions and impact on all outcomes. This is contrary to the results on switching intent and WoM referral as these outcomes did not vary. When speed was combined with compensation, the effects were identical to the effects of speed combined with empowerment (Table 7-3).

The results of the combined effect of speed with both empowerment and compensation on outcomes in each type of failure were not identical to those for the overall service failure situations. In outcome failure, speed interacted with empowerment for all consumer outcomes giving strong evidence for the important role of speed in service recovery in an outcome failure situation. In process failure however, the combined effects of speed with empowerment were insignificant for expectation update and loyalty, suggesting that these outcomes remain the same as that of the direct effects of empowerment and speed (that is, when they were not combined).

When speed was combined with compensation, four consumer outcomes were significantly different (repurchase intent, expectation update, enhanced loyalty and WoM referral) in both failure types. However, one outcome (complaint motive) in process failure, one outcome (switching intent) in outcome failure and one outcome (overall satisfaction) in both types of failure was insignificant with this combination.

Since the differences in consumer outcomes were generally significant when speed was combined with other service recovery actions, speed can be regarded as one of the important service recovery actions. If these differences with speed were due to improvements in consumer outcomes, it would be beneficial for managers to include speed in their service recovery strategy. Future research needs to explore this, as

identifying the direction of an improvement (or deterioration) is beyond the scope of this study.

7.3.2 Moderating effect of apology

This section explores the effects of apology on consumer outcomes when it is combined with the other two service recovery actions (**empowerment and compensation**). When apology was combined with empowerment in an overall failure situation, it showed significant effect on five of the seven consumer outcomes (repurchase intent, expectation update, complaint motive, overall satisfaction and switching intent), and there was no effect on two consumer outcomes (enhanced loyalty and WoM referral) (Table 7-3).

When apology was combined with compensation, the effects were identical (all significant) for outcomes to the combined effects of apology and empowerment (Table 7-3) except for the switching intent, enhanced loyalty and WoM referral where the effects were not identical (some were significant and some were not significant).

There was an overall (multivariate) interaction effect of apology with compensation on the set of seven consumer outcomes (see Table 6-13, page 156). However, when looking at each consumer outcome, the effect on switching intent was not significant. One possible reason for this insignificant effect could be that the customer was compensated in the right time. For example, the organisation had already settled with the customer by offering a refund or replacement and thus an apology may have been viewed as unnecessary.

When the effects of these combinations are examined across types of failures, apology did seem to have an overall interaction effect on many consumer outcomes with empowerment and compensation in both process and outcome failure situations.

In process failure, when examining the effects of apology with empowerment on each consumer outcomes, only overall satisfaction was not affected (Table 7-4). Since the combination of apology and empowerment was unable to make significant difference on the overall satisfaction of a customer, it seems to suggest that there would be a need for multiple service recovery actions to change the level of customer satisfaction rather than implementing apology and empowerment alone. This argument will be further

assessed in later sections where the impact of more than two service recovery actions will be discussed (three-way interactions).

In outcome failure however, enhanced loyalty and repurchase intent remained unchanged with this combination (apology and empowerment). The insignificant effect on loyalty could be indicating that loyalty builds-up over time and cannot be affected by a few service failure experiences or service recovery attempts. The insignificant effect on repurchase intent also signalled that repurchase frequency does not change with the addition of one more recovery action in outcome failure.

Looking at the effects of apology and compensation in both failure types, there were combined effects on all individual outcomes except repurchase intent in outcome failure and expectation update in process failure. The significant difference in many consumer outcomes shows the high importance of inclusion of apology together with compensation in a service recovery strategy.

Altogether, it appears that the combination of apology with both empowerment and compensation is generally desirable to bring changes in consumer outcomes in both process and outcome failure.

7.3.3 Effects within employee and organisational actions

This section explores the effect of a combination of employee service recovery actions (speed and apology) on consumer outcomes. Similarly, this section also explores the effect of organisational service recovery actions (empowerment and compensation) as well.

In overall failure situation, firstly, when employee actions (**speed and apology**) interacted, there were significant effects on consumer outcomes other than complaint motive (Table 7-3). Since the individual effect for each employee action (speed and apology) were significant on consumer outcomes (Table 6-4, page 145; Table 6-6, page 147), the lack of an effect when both of these are combined adds an important insight into service recovery strategy. This combination (speed and apology) appears to be the best service recovery strategy that could encourage customers to complain (as complaint motive was not changed with this combination indicating that customers will still complain) and simultaneously bring change in the other six consumer outcomes

(since the effect was insignificant on complaint motive and significant on all other outcomes).

Secondly, when organisational actions (**empowerment and compensation**) interacted, the results were more complex. Although the individual effects of empowerment and compensation were generally significant (see Table 7-1 and 7-2), the combined effects of these two recovery actions were mostly insignificant (Table 7-3) suggesting that service recovery strategies involving the combination of empowerment and compensation does not mitigate the ill (or positive) effects of each other (that is, empowerment or compensation).

One possible reason could be the counter effect of empowerment on compensation. In other words, empowerment may not be viewed necessary if the customer receives compensation. This may mean that customers are less concerned with who (empowered versus not empowered employees) offers compensation as long as they are compensated. This is consistent with the findings of Boshoff and Leong (1998) suggesting that customers are concerned with 'what' they received and not 'who' offers it to them. Another reason for the insignificant effect could be the satisfaction achieved through empowerment. For example, an empowered employee (having authority to make a decision on behalf of the organisation) could offer something (e.g., complimentary service) and therefore compensation may not be able to add anything significant on top of what has already been offered by the empowered employee.

When interaction effects were analysed separately for each type of service failure, the results varied. When employee actions (**speed and apology**) interacted, there were significant effects on consumer outcomes in outcome failure except for overall satisfaction, whereas the interaction effects were insignificant in process failure except for repurchase intent and overall satisfaction (Table 7-4). Since the effects were generally insignificant in process failure, this possibly suggests to apply any one action (speed or apology) as there will not be any difference after adding another recovery action. Organisations may also consider implementing an apology as an alternative to a quick response in process failure, provided the significant differences relate to an improvement (not a deterioration). Future research will need to identify this, that is, whether the significant differences lead to an improvement.

The significant difference in outcome failure suggests that the combination of speed and apology can be regarded as a good strategy (assuming that significant difference leads to an improvement in consumer outcome³⁴) when customer perception is negative after a completed service performance (outcome failure). The significance of this interaction effect in outcome failure could be related to the fact that the customer may not have any hope of a service being corrected as the performance is over and thus an apology could further enhance the positive impact of speed on consumer outcomes. However, this may not be the case in process failure because customers may still see the possibility of the problem being rectified and thus prefer to receive the improvement in service rather than just an apology and nothing else being done.

Several avenues for future research appear in this context. For example, identification of the effects of more than two levels of speed and apology on consumer outcomes and then comparison of the findings with this study could be one interesting topic for future research. Similarly, a study of the combined effects of service recovery actions between two groups, for example, those who perceived the problem as controllable versus those who perceived the problem was beyond the control of the service provider; those customers who were involved in service production process versus those who were not involved; could be another step forward in service recovery research.

When organisational actions (**empowerment and compensation**) interacted, the effects were generally insignificant in both types of service failure except: a) expectation update and WoM referral which were significant in outcome failure and b) complaint motive and switching intent which were significant in process failure. This generally insignificant effect is identical to the overall service failure situation where customers are not concerned about ‘who’ takes the recovery action but they do consider ‘what’ has been done to remedy the service failure (in this context - compensation).

However, it must be noted that consumer intentions within this study were examined on the basis of types of compensation (refund versus replacement) and not on the basis of their levels (e.g., 50% refund versus 100% refund). It might therefore be an indication that consumer intentions do not vary with type of compensation if employees are empowered. If so, customers might perceive that the staff have done what they are

³⁴ This assumption is based on the results of direct effects of service recovery actions which generally showed improvements in consumer outcomes (Table 7-2).

authorised to do (one level of empowerment). However, the variations in the levels of empowerment and compensation (e.g., high, medium, low) were not incorporated within this study and so would be interesting to explore in future research.

7.4 Three-way interaction effects

This section discusses the results obtained from the examination of the combined effect of any three service recovery actions (out of four) on consumer outcomes. This investigation tested the remaining hypotheses H2.5 and H4.2 which posited that there will be three-way interaction effects of service recovery actions on consumer outcomes in overall failure (H2.5) and across failure type (H4.2).

Investigation of the combined effects of service recovery actions in an overall failure situation is not new in the service recovery literature (e.g., Schoefer and Ennew, 2005). Within the past studies, it has been widely accepted that service recovery actions show three-way interaction effects on consumer outcomes (e.g., Wirtz and Mattila, 2004). Although the combined effects were examined only in a small number of recovery outcomes, the literature seems to suggest that multiple service recovery actions could impact on consumer outcomes when they interact with each other (e.g., Hocutt et al., 2006; Valenzuela et al., 2005). However, as mentioned earlier, all of these studies were conducted in overall service failure situations. This research has also examined three-way interaction effects on overall service failure situations in order to compare its outcomes with the existing literature. In addition, the interaction effects were also examined in both the process and outcome dimensions of service failure.

The examination of three-way interaction effects of service recovery actions in Table 7-5 shows the effects on consumer outcomes were generally significant. These results also show the consistency with the findings of the existing literature. For example, Sparks and McColl-Kennedy (2001), Tax et al. (1998) and Wirtz and Mattila (2004) found three-way interaction effects on satisfaction. A further insight was gained by examining three-way interaction effects on consumer outcomes within each type of service failure. Table 7-6 summarises these results.

Notably, this research has varied the type of compensation rather than the magnitude of compensation. Therefore, the existence of interaction effects of compensation with other variables suggests that consumers would prefer any one type of compensation

(refund versus replacement) rather than appreciating (or not appreciating) the compensation offered. Although three-way interaction effects of service recovery actions on consumer outcomes were generally significant in overall failure situations (Table 7-5), there were more complex results with these interaction effects across failure types (Table 7-6). These results seem to agree with the past research that achieving a positive outcome through service recovery strategy is a complex activity (Colgate and Lang, 2001; Kanousi, 2005; Wirtz and Mattila, 2004). Further, none of the combination of service recovery action (a total of four combinations were possible for three-way interactions as seen in Table 7-6) was able to show significant effect on all seven consumer outcomes in both failure types. The effects of all possible combinations of all three recovery actions in different failure types shall now be discussed.

The three-way interaction effects of the **first combination** (speed, apology and empowerment) in process failure were significant for the consumer outcomes other than expectation update and overall satisfaction (Table 7-6). This would suggest that organisations can achieve significant change in consumer outcomes with recovery activities involving speed, apology and empowerment in process failure situations but these actions will not make any significant changes in overall customer satisfaction and expectations. Further, the significant effect on repurchase intention in this setting would seem to suggest that customers with a same level of satisfaction before and after service recovery (as there was no significant difference with service recovery action) will possibly stay with the service provider. This is contrary to satisfaction with the service experience (not the recovery satisfaction) where consumers' repurchase intentions are found to be associated with their service experiences (e.g., Dabholkar and Overby, 2005).

In outcome failure, although this combination of three recovery actions (speed, apology and empowerment) has an interaction effect on overall satisfaction, it did not have any effect on complaint motive. Therefore, if customers were not willing to raise their voice after a service failure, their attitude would remain the same even after these service recovery actions (as the difference was not significant). This means that organisations are less likely to receive complaints and thus lose the opportunity to learn about what actually went wrong in the service performance.

Table 7-5: Summary of effect of independent variables on consumer outcomes in overall failure situation

Effect Type	Effect Variable	Repurchase Intent	Expectation Update	Complaint Motive	Overall Satisfaction	Switching Intent	Enhanced Loyalty	WoM Referral
	Speed x Apology x Empowerment	.000	.000	.000	.000	.000	.000	.000
	Speed x Apology x Compensation	.000	.000	.000	.000	.000	.000	.000
	Speed x Empowerment x Compensation	ns	.000	.000	.000	ns	.000	.000
	Apology x Compensation x Empowerment	.000	.000	ns	.002	<u>.015</u>	.001	.000

Note: -‘ns’ indicates non-significant effect.

-Numbers represent the significance level of interaction effect for each consumer outcome.

-Corresponding significant differences at the level $p < .01$ are represented in bold, and those at the levels $p < .05$ are underlined.

Table 7-6: Summary of effect of independent variables on consumer outcomes in process and outcome failure situations

Effect Type		Repurchase Intent		Expectation Update		Complaint Motive		Overall Satisfaction		Switching Intent		Enhanced Loyalty		WoM Referral	
	Failure Type Effect Variable	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.	P.F.	O.F.
Three-way Interaction	Speed x Apology x Empowerment	.000	.000	ns	.000	.003	ns	ns	.000	<u>.015</u>	.000	.010	.000	.000	.000
	Speed x Apology x Compensation	ns	.000	.002	.000	ns	.000	ns	.000	.001	.000	ns	.000	.002	.000
	Speed x Empowerment x Compensation	ns	ns	.009	.000	ns	.000	ns	.000	ns	ns	ns	.000	.001	.002
	Apology x Compensation x Empowerment	.000	ns	ns	.000	ns	ns	.005	.000	<u>.014</u>	<u>.020</u>	<u>.026</u>	.000	.001	.000

Note: -‘ns’ indicates non-significant effect.

-Corresponding significant differences at the level $p < .01$ are represented in bold, and those at the levels $p < .05$ are underlined.

-Abbreviations are used for process failure as P. F., and for outcome failure as O. F.

-Shaded pairs indicate differences in outcomes for a recovery action between failure types.

Conversely, if customers were intending to complain before service recovery, they would still be complaining as the recovery activity did not make any significant difference. Therefore the inclusion of speed, apology and empowerment in a service recovery strategy in outcome-based service failure may not always be the best choice for managers although it could ensure that customer satisfaction is achieved.

The **second combination** (speed, apology and compensation) also seemed to have inconsistent interaction effects on recovery outcomes. In process failure, only three consumer outcomes (expectation update, switching intent and WoM referral) were significantly different whereas remaining four outcomes were not. However, in an outcome failure setting, all consumer outcomes were significantly different with this interaction. These results suggest the complexity of recovery actions in the process dimension and, like earlier combinations of recovery actions, this combination also indicated that it (the combination) needs to be implemented with caution when recovering from process failure.

The **third combination** (speed, empowerment and compensation) had a significant effect on expectation update and WoM referral in process failure. However this combination failed to show an effect on repurchase intent, complaint motive, overall satisfaction and switching intent. Together, the results of this interaction effect suggest that such a combination of recovery actions may not help to further improve these four consumer outcomes (as the direct effect of each of these recovery actions had generally improved consumer outcomes –see Section 7.2). The insignificance of this interaction on both repurchase and switching intent in process failure does not contradict with the results in outcome failure (as the effects were insignificant in outcome failure as well) indicating that this combination of recovery actions may not be a choice to bring changes in consumer outcomes in either of the failure types.

However, more recovery outcomes were impacted with three-way interactions of these variables in outcome failure than in process failure (five in outcome failure and two in process failure). This could be suggesting that the combined effects of recovery actions are straightforward in outcome failure, whilst the process dimension of service failure is more complex. If so, it tends to support the propositions of Parasuraman et al. (1991) that the process dimension of service is more prominent, and of McCole (2004, p.352)

that, “a consumer is likely to make a decision at this point [process failure] as to whether or not he/she will use the service again”.

Finally, the **fourth combination** of recovery actions (apology and compensation and empowerment) showed generally similar results across both failure types except for repurchase intent which was significantly different in process failure and for expectation update which was significantly different in outcome failure. This could mean that organisations experiencing less frequent visits from existing customers might benefit through this recovery strategy (as the effect on repurchase intent is significant here, and each service recovery action has generally improved repurchase intent individually and thus it is reasonable to assume that a significant difference means an improvement in repurchase intent). Future research will need to explore in providing empirical evidence to this assumption. Further, with generally similar results for both failure types, the strategy could be equally effective across both process and outcome dimensions of the service.

Again, as seen in Table 6-26 (page 177), apology and empowerment alone possibly do not achieve customer satisfaction with recovery in process failure because customer satisfaction remained unchanged with speed. However, two way effects of apology and empowerment on overall satisfaction became significant when compensation was included as a third variable (recovery action) in both process and outcome failure situations (Table 6-30, page 181). Therefore, unlike the first three combinations, three-way interaction of recovery actions on overall satisfaction in both process and outcome failure further broaden the applicability of this strategy when satisfaction ratings need to be changed.

Overall, the combination of speed, apology and compensation seems to be the most effective service recovery strategy to bring changes in outcome failure situations. As indicated earlier in Section 1.5 (see page 15) and suggested by Bhandari et al. (2007), a successful recovery should be able to improve all seven consumer outcomes. This seems to be possible with the service recovery strategy comprising these three recovery actions (as most of the consumer outcomes were improved with each service recovery action individually). Unfortunately, this is not the case in process failure in which none of the combinations were able to show three-way interactions on all seven consumer

outcomes. This means that organisations may need to sacrifice the expected changes in certain recovery outcomes when making a choice of a service recovery strategy.

If so, then the option available for a service provider is to select the best combination of service recovery actions which can significantly change consumer outcomes more than any other combinations. In connection to this, the inclusion of speed, apology, and empowerment appears to be the most appropriate service recovery strategy in a process-based service failure. While complaint motive received insignificant effects in all other combinations, this recovery strategy (speed, apology, and empowerment) had a significant effect on it. Similarly, the effect on loyalty was insignificant with other combinations, but it was significant with these three, that is, speed, empowerment and apology.

In outcome failure, however, only five of the seven consumer outcomes were significantly different with two combinations, and six were significantly different with one combination (see Table 7-6). Only one combination (speed, apology and compensation) showed significant interaction effects on all seven consumer outcomes, suggesting it as the best strategy in dealing with outcome failure.

In regard to the selection of appropriate service recovery strategy to bring significant changes in consumer outcomes, some interesting interpretation appeared through the observation of direct effect (Table 7-2), two-way interaction (Table 7-4) and three-way interaction (Table 7-6) effects of compensation with other service recovery actions. These results shall now be discussed.

7.4.1 Results related with compensation

As noted in separate (any one service recovery action) effects of service recovery actions, replacement was generally favoured by customers in process failure whereas refund was preferred in outcome failure (Table 7-2). In interaction effects, however, there were many instances where neither compensation type was favoured in process failure (interaction effects were insignificant). This was possibly because consumers do not prefer settlement through the means other than by improving ongoing service. Something that has gone wrong during the service process (process failure) has to be fixed so that the updated service can be similar to what was expected when the

purchase decision was made (i.e., without failure). Therefore, it becomes obvious that those recovery actions that are more likely to bring more favourable outcomes, are those that contribute to upgrading the existing service. In this situation, providing refund can be viewed by the customer as confirmation of poor service performance. That is, service providers acknowledge their inability to provide a good service by offering a refund instead of showing commitment in improving the service.

Therefore, a consumer favouring a quick response (speed) with an apology from an employee, who has authority to decide on behalf of the firm (empowerment), seems reasonable in this context (as the combination of speed, apology and empowerment showed significant effects on consumer outcomes more than any other combination of service recovery actions in process failure-also see Table 7-6). Offering compensation would possibly give the impression to the consumer that the service is not going to be rectified. Therefore, the consumer's future expectations are likely to deteriorate by offering compensation and therefore the negotiation attempts of the service provider by offering compensation are not desirable when service delivery is yet to be completed (process failure).

In contrast, outcome failure situations are different because in these situations, service performance is already completed. This means that there is limited possibility of rectifying the ongoing problem. In such situations, organisations as well as customers have no options other than negotiation with each other through some other means (e.g., compensation). Consequently, it is not possible for consumers to experience the upgraded service without repurchasing the service next time. Therefore, offering compensation could help the dissatisfied customer to feel that they are receiving something that equates with what they paid, that is, the sum of the value of consumed service is at least equal to the compensation received. It seems that the inclusion of compensation (instead of empowerment) with speed and apology would be the best choice for service providers in outcome failure (speed, apology, compensation was the only recovery strategy which had significant effect on all consumer outcomes in outcome failure-see Table 7-6).

The insignificant effect on repurchase intent, when speed was replaced with empowerment, further revealed that compensation alone was not the determinant factor in improving overall consumer future intentions. Indeed, one convincing interpretation

about why more recovery outcomes were significantly improved with speed rather than empowerment (see Table 7-5 and 7-6) is that consumers, while being compensated, prefer to get it quicker (i.e., with speed) and are less concerned about who compensated them (junior employee or a senior manager).

7.5 Summary of findings

Altogether, this study identified firstly, the effects of service recovery actions on consumer outcomes in overall service failure situation. These effects are found to be consistent with the findings of existing studies. As such, these results provide support for past studies in regard to the need for service recovery strategy in order to improve consumer outcomes. These results also found that the manipulations of the present study were correct which were based on the assumption that recovery action (independent variable) should have some degree of effect on consumer outcomes (dependent variable).

Secondly, this study has compared the effects of service recovery actions in two types of service failure. It found that the results were not identical across these failure types. These results provide evidence that the underlying assumption of existing studies about the use of a standard service recovery strategy in every failure situations is not practical. The results therefore presented the empirical evidence of the need for separate recovery strategies in each type of failure.

The analytical results of this study helped to compare the effectiveness of various service recovery actions (individually or in combination) on consumer outcomes. While each service recovery action has some degree of effect on consumer outcomes individually, their combined effects varied depending on which recovery actions were combined. Table 7-6 provided the summary of effectiveness of various combinations of service recovery actions. The results appear to suggest that the best strategies in process failure could include **speed, apology, and empowerment** because these combinations are able to show significant differences in more consumer outcomes than any other combinations. In outcome failure, however, the combination of **speed, apology and compensation** could produce more significant difference in consumer outcomes because this is the only combination which shows significant three-way interaction effects on all consumer outcomes in outcome failure.

While interpreting the results of interaction effects (both two-way and three-way) within this study, it should be noted that significant differences definitely suggest the significant impact on consumer outcomes, but not necessarily an improvement. There are some instances where “significant interaction effects” are assumed as improvement in consumer outcomes. This assumption is based on the individual effects of service recovery actions which generally (not always) improved consumer outcomes although there are some instances where consumer outcomes deteriorated with recovery actions (e.g., consumer switching intent deteriorated with speed in process failure as shown in Table 7-2).

One approach to identify whether the ‘significant difference’ is suggesting an improvement (or a deterioration), is by examining the mean contrast of varying levels of recovery actions. However this is beyond the scope of this study as this study was only intended to identify whether service recovery actions show interaction effects on consumer outcomes (see Hypotheses in Section 3.9). However, for completeness, an example of how such an interaction on one outcome might be examined, which identified the direction of that interaction, is discussed below.

The following two tables (Table 7-7 and Table 7-8) include the mean comparisons in three-way interaction of speed (low vs. high) with apology and no empowerment. Firstly, interaction effects among these three variables (i.e. a three-way interaction), are found to be significant (see Table 7-5). However, at this stage, it is not possible to identify how the interaction has affected the outcome variables. In order to do so, secondly, the following four possible cells with two levels of each of the effect variables need to be examined.

Cell One: No apology, No empowerment, Speed (Low vs. High)

Cell One: No apology, Empowerment, Speed (Low vs. High)

Cell One: Apology, Empowerment, Speed (Low vs. High)

Cell One: Apology, No empowerment, Speed (Low vs. High)

Thirdly, statistical values for each cell need to be identified, first, by examining mean values (see Table 7-7) and then comparing them (see Table 7-8).

Table 7-7: Mean comparison among apology, no empowerment and speed (Low vs. High)

Dependent Variable	speed	N	Mean	Std. Dev.	Std. Error
RepIntent	low	1560	2.6459	1.15034	.02912
	high	920	2.8830	1.35196	.04457
ExUpdate	low	1560	3.9284	1.70238	.04310
	high	920	4.6442	1.22964	.04054
ComMotive	low	1560	3.8934	1.40859	.03566
	high	920	4.3312	1.39796	.04609
OvrSatis	low	1560	3.3843	1.34455	.03404
	high	920	3.2565	1.58714	.05233
VaySwtInt	low	1560	4.5096	1.08523	.02748
	high	920	4.1225	1.23013	.04056
EnhLoyalty	low	1560	2.7830	1.24263	.03146
	high	920	2.7630	1.37968	.04549
RefWoM	low	1560	3.0487	1.14816	.02907
	high	920	3.9870	.81905	.02700

Table 7-8: Independent Samples Tests

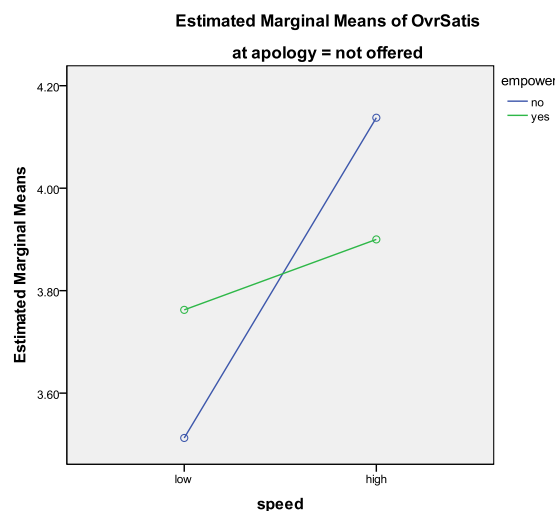
Dependent Variable	Levene's Test (Variances)		t-test (Equality of Means)			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
RepIntent	34.605	.000	-4.640	2478	.000	-.23703
ExUpdate	165.328	.000	-11.152	2478	.000	-.71578
ComMotive	.080	.777	-7.498	2478	.000	-.43778
OvrSatis	44.644	.000	2.136	2478	.033	.12777
VaySwtInt	20.750	.000	8.162	2478	.000	.38715
EnhLoyalty	11.812	.001	.371	2478	.711	.01997
RefWoM	96.536	.000	-21.737	2478	.000	-.93824

As seen in Tables 7-7 and Table 7-8, the overall three-way interaction (shown in Table 7-5) was caused by the effect variable on all outcome variables other than enhanced loyalty ($t=.711$) suggesting that customer loyalty does not change if the situations are handled by an unempowered staff member, as long as they offer an apology and act quickly. All other outcome variables were significantly affected affirming the finding in Table 7-5. Further, Table 7-8 identifies whether there is an improvement in outcome

variable. For example, mean difference for repurchase intention was significantly higher with high speed ($M=2.64$ vs. $M=2.88$; $t=-.24$, $p<.01$) indicating that consumers are likely to repurchase if an employee acts quickly (high speed) with an apology. On the other hand, the mean difference for switching intention was significantly lower with high speed ($M=4.50$ vs. $M=4.12$; $t=.39$, $p<.01$) indicating that consumers are less likely to switch to another service provider if an employee acts quickly (high speed) with an apology.

The following Figure 7-1 illustrates how interaction effects can be seen and analysed graphically. For example, when an apology was offered, a graph of the two levels of empowerment (not empowered versus empowered) and two levels of speed (low versus high) shows that speed and empowerment interact with each other (the lines are intersecting). The graph thus helps a researcher to identify what level of effect variable is the most appropriate. For example, the most appropriate level of speed in Figure 7-1 is at $M=3.80$.

Figure 7-1: Example of graph showing interaction effect between variables



Although the discussion of mean comparisons in three-way interaction effects is beyond the scope of this study, further exploration on these issues (that is, mean analysis in three-way interactions) would be an interesting avenue for future research. Directions for future research are included in next chapter.

7.6 Conclusion

This chapter presented the discussion on the results of ‘relationship analyses’ conducted in Chapter Six. Firstly, direct effects of various service recovery actions on consumer outcomes were discussed in Section 7.2. Secondly, the moderating effects of service recovery actions were discussed in Section 7.3 and finally, the discussion on the effect of three-way interactions was included in Section 7.4.

The findings of this study in regard to the overall failure situation (that is, without separating process failure and outcome failure) were identical to those of existing studies for three recovery actions (speed, apology and empowerment)³⁵. However, the effects of these recovery actions across two types of service failure were not identical. Comparing the analytical results within this Chapter recognised not only the need for separate service recovery strategy in each type of service failure, but also identified the most suitable service recovery strategies in each type of failure.

Additionally, this study is the first to compare consumer future intentions based on type of compensation (refund versus replacement) and it was found that consumer preferences between the types of compensation were situation specific. Consumers who encountered process failure generally preferred replacement as the compensation while those with the outcome failure were seen to prefer a refund. Therefore, this study has suggested where to offer each type of compensation while undertaking service recovery.

Based on the interpretations within this chapter and the analytical results of Chapter Six, the implications and contributions of the present study, and direction for future research are explored in the concluding chapter (Chapter Eight).

³⁵ Identification of differences in consumer outcomes with types of compensation (the fourth service recovery action explored in the present study) was not investigated in the past.

Chapter Eight

IMPLICATIONS AND CONCLUSIONS

8.1 Introduction

This chapter summarises and concludes the research findings of this thesis. As a continuation of the interpretation of research findings included in Chapter Seven, this chapter also includes a discussion on the justification, contribution and implications of this study. Further, the area of research extending beyond this study is explained and corresponding future research opportunities are also presented within this chapter.

8.2 Justification of the study

One of the objectives of this study was to investigate the effect of service recovery actions on a range of consumer outcomes. This objective was based on a review of the literature, which indicated that full success of service recovery from a failed service encounter would need to include multiple consumer outcomes. For example, Shapiro and Nieman-Gonder (2006) suggested that an investigation of outcomes such as satisfaction, loyalty, and complaining behaviour is essential to know how consumers perceive a service organisation's performance. Similarly, Ndubisi and Ling (2005) emphasised that a study of consumer intentions should include purchase behaviour and propensity to switch. In addition, Snellman and Vihtkari (2003) and McCole (2004) suggested a need to examine complaint motive in service encounters. Butcher (2005) emphasised the need for future research in a range of factors, which could impact on consumer future intentions. As such, a total of seven consumer outcomes frequently proposed by researchers were incorporated within this study (e.g., Bhandari and Polonsky, 2004). They are: repurchase intent; switching intent; WoM referral; expectation update; enhanced loyalty; complaint motive; and overall satisfaction.

Another objective of this study is related to the widespread support across the literature that services are situation specific and therefore no two services can be identical if delivered in different situations, for example, time, place, and ambience. This led this researcher to envisage two different situations of unsatisfactory service experiences:

a) during a service being delivered; and b) after a service has been delivered, may not necessarily be identical. Consequently, a general approach to service failure in earlier research was divided into two types of service failure within this study. They are a) process failure and b) outcome failure. This division of the type of service failure is consistent with the propositions of some research scholars. For example, Parasuraman et al. (1991) suggested that service performance has process and outcome dimensions. Since the literature acknowledges the existence of different service dimensions, it seems obvious that failure can also occur in both dimensions of the service.

Interestingly, while this research was underway, a mathematical model by Zhu et al. (2004, p.497) appeared in which they divided service failure into two components, “process component and outcome component”. They named service recovery activities for the process component of failure as “process failure recovery” and that of the outcome component of failure as “outcome failure recovery”. Their model gave further strength to the present study in regard to the possibility of examining service recovery for two types, that is, process failure recovery and outcome failure recovery.

Another objective of this study was to examine whether there are any interaction effects amongst service recovery actions, that is, organisational and employee actions in response to the service failure. Firstly, it was evident from the literature that the customer expects some kind of fulfilment from the organisation in most service failure situations. Therefore, organisations can play a key role in retaining an unsatisfied customer. Secondly, on behalf of the organisation, employees can play a vital role in satisfying a customer. Within this study, organisational factors were divided into two broad categories: compensation; and empowerment. Similarly, employee recovery actions within this study were specified as: a) speed of response to failure; and b) apology from the service staff.

8.3 Contribution of the study

Service marketing scholars agree that a service performance is not just a transaction, which can be completed in one single activity. Rather, it is a process comprising pre-purchase expectations, experiencing a service and post-purchase evaluations (Lovelock et al., 2004). These activities together make the involvement of the customer

inevitable in the service process (Parasuraman et al., 1991). Further, the comparison of pre-purchase expectation with the actual service performance seems to relate to post-purchase consumer intentions (Patterson and Smith, 2001).

Several researchers have attempted to identify the impact of consumer perception of service performance as well as recovery actions on consumer outcomes (e.g., Shapiro and Nieman-Gonder, 2006; Hocutt et al., 2006). In Chapter Two, it was revealed that past research was limited to the examination of only a few outcomes within one study such as satisfaction (Ronald et al., 2003), loyalty (Mattila, 2004), WoM referral (Ranaweera and Prabhu, 2003) and complaint motive (Valenzuela et al., 2005). It is questionable whether the results across past studies can be generalised when there are multiple consumer outcomes. Although these multiple outcomes are likely to occur in the real service performance process, unfortunately no attempts were made in the past to investigate the variation in a range of consumer outcomes. Firstly, by incorporating all seven consumer outcomes as identified in Section 2.7, this research is able to offer a significant contribution to the theory by exploring the effect of recovery strategies on a range of consumer outcomes.

Secondly, in regard to the types of failure, previous studies have failed to envisage the existence of types of failure and thus they examined negative service experience during service delivery as representing overall failure. Therefore outcome failure, as proposed within this study, and which could often be in existence (Zhu et al., 2004), was virtually ignored. This study investigated the impact of recovery actions on consumer outcomes while attempting to recover from each type of service failure. The results of this study indicate that consumer outcomes could differ based on the types of service failure even if identical sets of recovery actions were applied. Therefore, the findings of this study, which demonstrated that the improvement in consumer outcomes with service recovery vary across failure types, offer an important contribution to the body of knowledge.

Thirdly, this study included both organisational (empowerment and compensation) as well as employee (speed and apology) service recovery actions in order to examine their interaction effects on consumer outcomes. The findings relating to these interaction effects contributed to the theory by suggesting that some recovery actions moderate the effect of others, sometimes in complex ways.

Fourthly, one of the recovery actions, which served as independent variables within this study, was type of compensation. Existing literature has suggested that there is a significant positive impact of compensation (compared to no compensation) on consumer outcomes. However, the researcher of this study could not find any attempts in previous studies to differentiate which form of compensation is more likely to positively impact on consumer outcomes. This led to an unanswered issue relating to, 'which method of compensation is more appropriate for successful recovery'. Indeed, this research investigated the impact of two types of compensation, refund and replacement, to identify consumers' preferences of compensation type. The findings indicate that future intentions vary depending on how customers are compensated. This study is the first to identify statistical difference in consumer outcomes across types of compensation, and therefore it contributes to the service recovery literature.

8.4 Implications for service industry

By incorporating types of service failure, this study highlighted several important managerial implications in regard to the choice of recovery actions to improve consumer future intentions. Firstly, the statistical evidence in regard to the types of service failure indicated that effective service recovery strategy is important in both process and outcome failure situations. The results clearly suggest that service organisations need to carefully consider whether service failure is perceived as process failure or outcome failure before designing service recovery strategies.

Secondly, customer intentions appear to vary based on how service recovery activities are undertaken. For example, while offering compensation, the findings suggest that refund is preferred in outcome failure while replacement is preferred in process failure. This finding differs with existing research where industry practitioners were recommended to offer compensation (of any kind) in order to improve consumer perception of service delivery. In addition, variations in consumer outcomes with speed, apology, empowerment and type of compensation were different across failure types within this study. These findings have an important implication for industry practitioners when formulating a service recovery strategy. They need to be aware of the type of service failure before deciding on how, and what, combination of recovery actions to implement.

Although the results generally indicate there is the possibility of improvement in consumer outcomes with service recovery strategy, the variations in consumer outcomes were complex. Therefore, this study identified the need for service organisations to proactively manage recovery strategies (La and Kandampully, 2004). This involves designing complex sets of organisational and employee recovery activities by targeting specific failure settings and consumer outcomes. Organisations, therefore, cannot develop standardised approaches to recovery, as these will not necessarily, or appropriately, consider the failure setting and consumer outcomes. Rather, organisations will need to have more adaptive recovery strategies.

The implication of this is that organisations will become increasingly dependent on service staff for recovery actions and that these staff have to be sensitive to the specific needs and experiences of the consumer. Service staff need to be provided with appropriate training to be able to understand recovery actions, as well as have the necessary organisational support to implement recovery actions. For example, this research has identified that speedy response is essential in improving consumer outcomes and thus employees need to be not only 'instructed' to respond quickly, but also should be briefed on why such action is necessary in regard to the consumer evaluations of recovery actions. This would also mean that service managers not only need to focus on rectifying the problem experienced by customers but also need to be vigilant for effective employee management.

8.5 Limitations of the research

In addition to the important contributions to the service recovery literature as well as having a range of implications for service industry practitioners, this research also has some limitations. Firstly, as explained in Chapter Three, this study has explored many variables. Some of them were not examined in the past and others were examined in different contexts and different service settings. Thus this study, which explored many variables in one service setting, is an exploratory experimental examination, which warrants future replication in different settings and with different research methods in order to support the findings.

Secondly, the dependence on scenario-based experimentation is considered by some to have some limitation in the area of service recovery research (Shapiro and Nieman-

Gonder, 2006). Although this study was complemented by rigorous research with real customers as proposed by Blodgett et al. (1993), Maxham and Netemeyer (2002), Shapiro and Nieman-Gonder (2006), and Wirtz and Mattila (2004), scenario-based research still lacks the real service encounters with real customers (Duffy et al., 2006) and real employees (Shapiro and Nieman-Gonder, 2006).

This research also employed a similar approach (to those in the past) in which study participants were allowed to read the hypothetical scenario followed by the questionnaire. Although all necessary procedures were followed (see Figure 4-1, page 84), there is no evidence that the hypothetically assumed situation would appear exactly identical to the real world incidents. Although scholars have developed the testing methods for the similarity of hypothetical scenarios with real incidents (Section 4.4.5), no study so far is able to establish that imaginary situations are exactly identical to the reality. The present study created incidents that were similar, but not exactly identical to the real ones, as the realism test identified that the possibility of scenarios representing real incidents was 82% (Table 4-6, page 94). This is probably why researchers have raised some concerns with scenario-based studies in regard to their validity. Scholars such as Maxham and Netemeyer (2002) suggest replicating the study with real world incidents. Replicated studies in the past, however, have supported the findings of scenario-based studies (e.g., Schoefer and Ennew, 2005).

Thirdly, sample sizes in scenario-based studies are generally small (Table 4-1, page 82) and this research is not an exception. While this (that is, small sample size) is supported in the literature, inclusion of only 20 respondents per scenario in this study could potentially limit the statistical power of the tests. Like previous studies, this study should also be replicated in real world failure situations with a sufficiently large sample size as well as different industry settings.

Fourthly, some of the constructs within this study had low instrument reliability, although the value of coefficient of alpha, which measures instrument reliability, surpassed the minimum threshold (Table 5-4, page 121). This low reliability was also reflected while computing 'strength of relationship' (see Appendix C, page 281 through to 283). Statistical conclusions of this study, based on the analysis of data with minimum reliability threshold of the construct, should be generalised in practice with caution.

Of the past studies, some did not undertake statistical tests to check the reliability and validity in scenario-based studies (e.g., Yen et al., 2004), while others did undertake these tests (e.g., Swanson and Kelley, 2001a). Those who did not, they relied on theoretical and procedural support to establish reliability and validity (explained in Section 5.4.1). Some researchers also argue that each scenario could represent a completely different condition and thus the responses based on different scenarios may not be combined for statistical analysis (e.g., Mattila and Wirtz, 2006). The present study has undertaken these tests separately after grouping all responses based on their similarity. For example, all responses were divided into two groups based on failure types and then the coefficient of alpha was calculated for each group separately. However, there are many scenarios within each failure type as well and therefore the differences could still exist. This means that the concern shown by earlier researchers should not be ignored. This is why most of the scenario-based studies suggest replicating them in real world incidents.

Fifthly, this was the first study in which both failure and compensation were varied based on their types. That is, existing studies did not incorporate different types for these two variables. Although these differential findings give a clear message to industry practitioners, the contradiction in research findings also complicates the process of designing a standard recovery strategy.

Sixthly, this study was conducted within hospitality service failure settings. Results of this study are possibly generalisable within the hospitality industry because the sample of respondents was the representative of real customers. However, service processes vary across industries and they may not be identical in regard to consumer perception of service performance (i.e., between hospitality and other service sectors). Therefore, there is a need to replicate this study in other industry settings to determine if the results are generalisable.

Seventhly, this study aimed to identify whether there is any difference in consumer outcomes when two or more service recovery actions interact. Thus the results obtained from the analysis were intended to answer either the hypotheses that there is a difference or that there is not any difference in consumer outcomes. However, if the difference existed, it was not proposed to answer what kind of difference has appeared, that is, whether the difference was lower (or higher) with service recovery action when

they interact because this study analysed means of individual service recovery actions only. This gap within this research provides another avenue for future research. Future research could further explore the mean comparisons of interaction effects. Appendix E on page 300 lists mean values of all three-way interactions. Further analysis can be undertaken with these mean values to identify how the interaction affects the outcomes. Further, Appendix F on page 308 provides statistical results obtained from mean comparison of the interaction effects. Examples of how these results would be plotted in a graph are given in Appendix G (page 314). Also, an example of how the results appearing within the graph would be interpreted is provided in Section 7.5 (page 225).

Finally, the literature has suggested that consumer perceptions of service performance vary with cultures (Magnini and Ford, 2004), and thus the service recovery outcomes would also vary (Kanousi, 2005). The majority of respondents (more than 84%) in this study represented Europe, Australia and New Zealand, and therefore, their views, perceptions and expectations of service performances, service standards and associated recovery strategies may not match with those of customers of other cultural backgrounds (e.g., Asians). The difference in perception might exist between the respondents of this study who represented two different geographical locations (Australasia and Europe). Future research could also test whether there is any difference in the perception of an organisation's service recovery effort between these groups of respondents.

8.6 Direction for future research

This study has highlighted many opportunities for future research. In regard to service recovery actions, firstly, only two types of compensation, refund and replacement, were incorporated within this study. More conclusive results can be obtained in relation to consumer outcomes by examining the impact of other forms of compensation such as discounts and coupons.

Secondly, the inclusion of only four recovery actions in this study provides another possibility for future studies to explore additional recovery actions such as explanation and empathy, or a combination of both. Also, the literature review of this thesis identified that past research categorised service recovery actions into employee service recovery actions and organisational service recovery actions and this (that is,

categorisation of service recovery actions) is acknowledged within this thesis. However, this thesis did not hypothesise nor explore within the statistical analysis that one type of action would be more effective than another as it continued the approach of past research that does not seem to differentiate service recovery actions while undertaking statistical analysis, irrespective of whether the service recovery actions were categorised or not. This alternative approach is one that could be looked at in the future.

Thirdly, the magnitude of recovery activities within this study had only two levels. Future research could incorporate three or more levels of these recovery actions and then investigate their effect on consumer outcomes. For example, the effect of speed could be examined based on very high, high, medium, low and very low. Similarly, apology could be varied as immediate apology, delayed apology and no apology, and empowerment could be varied as highly empowered, partially empowered and not at all empowered. Future research outcomes in these issues could then be compared with the findings of the present study to see whether more support could be obtained for the generalisation of the findings of this research.

This study primarily argues that there is the need to examine a complete range of consumer outcomes in order to identify the real success of a service recovery strategy. Although seven consumer outcomes were examined within this study, these alone may not represent all possible consumer behaviours that may be affected following service failure and the corresponding recovery strategy. Future research will need to continue to identify other possible consumer outcomes and replicate this study to investigate the impact of recovery actions on those new sets of consumer outcomes.

Another interesting avenue for future research would be conducting this research by grouping customers based on their attitudes. For example, grouping customers into complainant and non-complainant and then comparing future intentions of those who get the service rectified after complaining with staff and those who get the service rectified without complaining³⁶. Similarly, it would be an important contribution to the literature to investigate consumer intentions towards the service organisation by examining the impact of service recovery action after dividing all respondents into, for

³⁶ Future research could refer to a recent study by Kau and Loh (2006) for more information on the categorisation of customers into complainants and non-complainants.

example, loyal (versus not loyal), first time (versus repeat purchaser) and satisfactory (versus unsatisfactory) past service experience.

As noted in earlier sections, this research has investigated the effects of service recovery actions on consumer outcomes. Some interpretations related to these effects discussed whether one consumer outcome differs identically with another. Thus this study did not investigate how one consumer outcome impacts on another consumer outcome in service recovery situation, and therefore provides a countless number of opportunities for future research. For example: How the improved customer loyalty with service recovery impacts on customer repurchases? Will improved complaint intent with service recovery reduce customer switching intent? What would happen to WoM referrals when customer repurchases after a service recovery? How overall satisfaction achieved through service recovery impacts on complaint intent?

Similarly, this study only aimed to identify whether there are any interaction effects of independent variables. That is, it did not identify how the interactions affect the dependent variables. The aim of this study was achieved by running Multivariate analysis. However, future research could go one step further by analysing mean comparisons between each level of independent variables. This analysis could clearly indicate how the interaction has affected the outcome variable. For example, the present study reports on whether there is an interaction effect or there is not an interaction effect. Mean comparison, on the other hand, could identify how the interaction has affected the outcome variable, that is, whether the interaction has improved or deteriorated the outcome variable. While this examination would be important for understanding specific ways to address failure, it is something that is beyond the objective of the thesis

This research has examined the effect of specific sets of service recovery actions on consumer outcomes in each type of service failure separately and then compared the results whether they are similar in either type of failure. Additionally, future research could include type of service failure itself as an independent variable examine whether it has a main or moderating effect on consumer reactions.

In relation to the research design, this research followed the methods of analysis as used by other scenario based experiments in the past. Studies other than scenario based

experiments have used other research designs which includes nested design and hierarchical design (e.g., Baron and Roy, 2010; Cohen and Chohen, 1983; Kutner, 1985). Nested design approach could be used in future scenario based studies and then the results compared with the findings of existing studies of similar settings to identify any difference”.

From the literature, it is evident that consumer behaviours differ based on the consumer's cultural background (e.g., Kanousi, 2005). This study did not incorporate this issue, and therefore future research could contribute to the theory by examining differences in consumer intentions towards service organisations amongst the customers of varied cultural background.

8.7 Conclusion

The literature review section of this thesis highlighted the importance of improvement in post-failure consumer outcomes with service recovery strategy and it was identified that getting customers back for repeat business is an important issue for modern day service providers. It also revealed that profitability, the prime concern of most organisations, could potentially be much higher through satisfying existing customers since it nullifies the investment needed to attract new customers. The need for extensive research to identify the effect of service recovery actions, individually and in combination, across types of failure and overall failure, was realised in this study. Together, at least seven post-failure consumer outcomes were realised as ‘necessary-to-improve’ in order to rate a recovery strategy as successful.

An experimental examination was conducted in order to obtain these valuable insights for improving consumer outcomes in two types of service failure situations. The analytical findings highlighted some important issues in this area. Like other studies, this research also has some limitations. However, this research has contributed to the theory and practice as well as opened new horizons for future studies in the area of service failure and service recovery.

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APPENDIX: A

DEVELOPMENT OF SCENARIO AND QUESTIONNAIRE

TREATMENT CONDITIONS FOR 32 SCENARIOS

1. Process failure x High response speed x No empowerment x Apology x Refund
2. Process failure x High response speed x No empowerment x Apology x Replacement
3. Process failure x High response speed x No empowerment x No apology x Refund
4. Process failure x High response speed x No empowerment x No apology x Replacement
5. Process failure x High response speed x Empowerment x Apology x Refund
6. Process failure x High response speed x Empowerment x Apology x Replacement
7. Process failure x High response speed x Empowerment x No apology x Refund
8. Process failure x High response speed x Empowerment x No apology x Replacement
9. Process failure x Low response speed x No empowerment x Apology x Refund
10. Process failure x Low response speed x No empowerment x Apology x Replacement
11. Process failure x Low response speed x No empowerment x No apology x Refund
12. Process failure x Low response speed x No empowerment x No apology x Replacement
13. Process failure x Low response speed x Empowerment x Apology x Refund
14. Process failure x Low response speed x Empowerment x Apology x Replacement
15. Process failure x Low response speed x Empowerment x No apology x Refund
16. Process failure x Low response speed x Empowerment x No apology x Replacement

TREATMENT CONDITIONS FOR 32 SCENARIOS (Continued)

17. Outcome failure x High response speed x No empowerment x Apology x Refund
18. Outcome failure x High response speed x No empowerment x Apology x Replacement
19. Outcome failure x High response speed x No empowerment x No apology x Refund
20. Outcome failure x High response speed x No empowerment x No apology x Replacement
21. Outcome failure x High response speed x Empowerment x Apology x Refund
22. Outcome failure x High response speed x Empowerment x Apology x Replacement
23. Outcome failure x High response speed x Empowerment x No apology x Refund
24. Outcome failure x High response speed x Empowerment x No apology x Replacement
25. Outcome failure x Low response speed x No empowerment x Apology x Refund
26. Outcome failure x Low response speed x No empowerment x Apology x Replacement
27. Outcome failure x Low response speed x No empowerment x No apology x Refund
28. Outcome failure x Low response speed x No empowerment x No apology x Replacement
29. Outcome failure x Low response speed x Empowerment x Apology x Refund
30. Outcome failure x Low response speed x Empowerment x Apology x Replacement
31. Outcome failure x Low response speed x Empowerment x No apology x Refund
32. Outcome failure x Low response speed x Empowerment x No apology x Replacement

DESCRIBED 32 SCENARIOS

1. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and ask what is going to be done to find you a clean room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will send up a porter to move you to a new room. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will pay for the nights stay.
2. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and ask what is going to be done to find you a clean room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will send up a porter to move you to a new room. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will organise for you to be credited with a free nights stay on another visit.
3. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and ask what is going to be done to find you a clean room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will send up a porter to move you to a new room. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. They go on to say that these things happen in big organisations. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will pay for the nights stay.
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DESCRIBED 32 SCENARIOS (Continued)

5. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and ask what is going to be done to find you a clean room. The desk clerk indicates that they can fix it themselves. They indicate that they will send up a porter to move you to a new room. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will pay for the nights stay.
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DESCRIBED 32 SCENARIOS (Continued)

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DESCRIBED 32 SCENARIOS (Continued)

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DESCRIBED 32 SCENARIOS (Continued)

17. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will call the hotel next door to organise a room there. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will pay for the nights stay.
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DESCRIBED 32 SCENARIOS (Continued)

21. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they can fix it themselves. They indicate that they will call the hotel next door to organise a room there. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will pay for the nights stay.
22. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they can fix it themselves. They indicate that they will call the hotel next door to organise a room there. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will organise for you to be credited with a free nights stay on another visit.
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DESCRIBED 32 SCENARIOS (Continued)

25. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you. The desk clerk indicates that they will find you alternative accommodation and this should take approximately 30 minutes. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will pay for the nights stay.
26. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will find you alternative accommodation and this should take approximately 30 minutes. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will organise for you to be credited with a free nights stay on another visit.
27. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will find you alternative accommodation and this should take approximately 30 minutes. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. They go on to say that these things happen in big organisations. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will pay for the nights stay.
28. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will find you alternative accommodation and this should take approximately 30 minutes. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. They go on to say that these things happen in big organisations. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will organise for you to be credited with a free nights stay on another visit.

DESCRIBED 32 SCENARIOS (Continued)

29. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they can fix it themselves. They indicate that they will find you alternative accommodation and this should take approximately 30 minutes. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will pay for the nights stay.
30. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they can fix it themselves. They indicate that they will find you alternative accommodation and this should take approximately 30 minutes. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will organise for you to be credited with a free nights stay on another visit.
31. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they can fix it themselves. They indicate that they will find you alternative accommodation and this should take approximately 30 minutes. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. They go on to say that these things happen in big organisations. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will pay for the nights stay.
32. You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that the hotel is overbooked and there are no rooms available. You ask the desk clerk what is going to be done to find you a room. The desk clerk indicates that they can fix it themselves. They indicate that they will find you alternative accommodation and this should take approximately 30 minutes. The desk clerk explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. They go on to say that these things happen in big organisations. You ask whether you will be compensated for the inconvenience. The desk clerk indicates that the hotel will organise for you to be credited with a free nights stay on another visit.

ALLOCATION OF SCENARIOS TO HOTEL MANAGERS FOR REFINING

Manager 1					
1.	Process failure	High response speed	No empowerment	Apology	Refund
2.	Outcome failure	High response speed	No empowerment	Apology	Replacement
Manager 2					
3.	Process failure	High response speed	No empowerment	No Apology	Refund
4.	Outcome failure	High response speed	No empowerment	No Apology	Replacement
Manager 3:					
5.	Process failure	High response speed	Empowerment	Apology	Refund
6.	Outcome failure	High response speed	Empowerment	Apology	Replacement
Manager 4:					
7.	Process failure	High response speed	Empowerment	No Apology	Refund
8.	Outcome failure	High response speed	Empowerment	No Apology	Replacement
Manager 5:					
9.	Process failure	Low response speed	No empowerment	Apology	Refund
10.	Outcome failure	Low response speed	No empowerment	Apology	Replacement
Manager 6:					
11.	Process failure	Low response speed	No empowerment	No Apology	Refund
12.	Outcome failure	Low response speed	No empowerment	No Apology	Replacement
Manager 7:					
13.	Process failure	Low response speed	Empowerment	Apology	Refund
14.	Outcome failure	Low response speed	Empowerment	Apology	Replacement
Manager 8:					
15.	Process failure	Low response speed	Empowerment	No Apology	Refund
16.	Outcome failure	Low response speed	Empowerment	No Apology	Replacement
Manager 9:					
17.	Process failure	High response speed	No empowerment	Apology	Refund
18.	Outcome failure	High response speed	No empowerment	Apology	Replacement
Manager 10:					
19.	Process failure	High response speed	No empowerment	No Apology	Refund
20.	Outcome failure	High response speed	No empowerment	No Apology	Replacement
Manager 11:					
21.	Process failure	High response speed	Empowerment	Apology	Refund
22.	Outcome failure	High response speed	Empowerment	Apology	Replacement
Manager 12:					
23.	Process failure	High response speed	Empowerment	No Apology	Refund
24.	Outcome failure	High response speed	Empowerment	No Apology	Replacement
Manager 13:					
25.	Process failure	Low response speed	No empowerment	Apology	Refund
26.	Outcome failure	Low response speed	No empowerment	Apology	Replacement
Manager 14:					
27.	Process failure	Low response speed	No empowerment	No Apology	Refund
28.	Outcome failure	Low response speed	No empowerment	No Apology	Replacement
Manager 15:					
29.	Process failure	Low response speed	Empowerment	Apology	Refund
30.	Outcome failure	Low response speed	Empowerment	Apology	Replacement
Manager 16:					
31.	Process failure	Low response speed	Empowerment	No Apology	Refund
32.	Outcome failure	Low response speed	Empowerment	No Apology	Replacement

SCENARIO REALISM TEST

Dear participants, please read the following scenario carefully:

You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and told that you want a clean room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will send up a porter to move you to a new room. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will pay for the nights stay.

Based on above scenario, please indicate the extent to which you think this incident could happen in real life.

Not at all likely			Not likely		Neutral		Likely		Extremely likely
1	2	3	4	5	6	7	8	9	

MEAN SCORES OF SCENARIO REALISM TEST

Scenario No	Response 1	Response 2	Response 3	Sum	Mean
1	8.00	7.00	9.00	24.00	8.00
2	9.00	9.00	8.00	26.00	8.67
3	8.00	8.00	8.00	24.00	8.00
4	8.00	8.00	7.00	23.00	7.67
5	6.00	8.00	9.00	23.00	7.67
6	9.00	9.00	9.00	27.00	9.00
7	8.00	9.00	8.00	25.00	8.33
8	9.00	7.00	8.00	22.00	8.00
9	8.00	9.00	8.00	25.00	8.33
10	7.00	8.00	8.00	22.00	7.67
11	6.00	8.00	9.00	23.00	7.67
12	9.00	9.00	9.00	27.00	9.00
13	8.00	9.00	8.00	25.00	8.33
14	8.00	7.00	8.00	22.00	7.67
15	6.00	8.00	9.00	23.00	7.67
16	9.00	9.00	9.00	27.00	9.00
17	8.00	9.00	8.00	25.00	8.33
18	6.00	8.00	9.00	23.00	7.67
19	9.00	9.00	9.00	27.00	9.00
20	8.00	9.00	8.00	25.00	8.33
21	9.00	9.00	8.00	22.00	8.67
22	8.00	9.00	8.00	25.00	8.33
23	7.00	7.00	8.00	22.00	7.33
24	9.00	9.00	9.00	27.00	9.00
25	7.00	9.00	9.00	25.00	8.33
26	6.00	8.00	9.00	23.00	7.67
27	8.00	8.00	8.00	24.00	8.00
28	9.00	8.00	8.00	25.00	8.33
29	8.00	7.00	9.00	24.00	8.00
30	8.00	9.00	8.00	25.00	8.33
31	8.00	8.00	8.00	24.00	8.00
32	9.00	7.00	9.00	25.00	8.33
			Mean score	262.33/32	8.20

LITERATURES SOURCE FOR INSTRUMENT DESIGN

	Author/s	Original Item	Adapted Item
	Construct 1:	Repurchase intent	
1.	DeWitt and Brady (2003)	I would continue doing business with this firm over the next few years.	I would continue doing business with this hotel over the next few years.
2.	Boshoff (1997)	Given your experience, would you use Airlines again in the future?	Given your experience, would you use this hotel again in the future?
3.	Boshoff (1997)	Would this method of complaint handling ensure that you use Airlines again in the future?	Would this method of complaint handling ensure that you use this hotel again in the future?
4.	Maxham and Netemeyer (2003)	If you were in the market for electronics, how likely would you be to use (firm)?	If you were thinking to book a hotel, how likely would you be to use this?
5.	Maxham and Netemeyer (2003)	In the near future, I will not use (firm).	In the near future, I will not use this hotel.
6.	Patterson and Smith (2001)	I will lose a friendly and comfortable relationship if I change.	I will lose a friendly and comfortable relationship if I change.
7.	Swanson and Kelley (2001)	Would you use this again if you had a choice?	Would you use this again if you had a choice?

LITERATURE SOURCE OF INSTRUMENT (Continued)

	Author/s	Original Item	Adapted Item
8.	Swanson and Kelley (2001a)	How likely would you be to repurchase from this.... in the future?	How likely would you be to repurchase from this in the future?
9.	Colgate and Lang (2001)	What is the likelihood that you will go back to this next time you need this service?	What is the likelihood that you will go back to this next time you need this service?
10.	Mattila (2001)	Consider this company your first choice in the service category.	Consider this hotel your first choice in the service category.
	Construct 2:	Switching Intent	
11.	Patterson and Smith (2001)	I am not looking for another. . to replace the present one.	I am not looking for another hotel to replace the present one.
12.	Patterson and Smith (2001)	I wish to retain my relationship with (firm).	I wish to retain my relationship with the hotel.
13.	Patterson and Smith (2001)	Considering all things, I would waste a lot of time if I change (service suppliers).	Considering all things, I would waste a lot of time if I change the hotel.
14.	Patterson and Smith (2001)	I will lose a friendly and comfortable relationship if I change.	I will lose a friendly and comfortable relationship if I change.
15.	Patterson and Smith (2001)	If I change there is a risk the new one (service supplier) won't be as good.	If I change there is a risk the new one won't be as good.

LITERATURE SOURCE OF INSTRUMENT (Continued)

	Author/s	Original Item	Adapted Item
16.	Patterson and Smith (2001)	If I change (suppliers) I will have to spend a lot of time explaining my condition to a new. . .	If I change hotel I will have to spend a lot of time explaining my condition to a new hotel.
17.	Patterson and Smith (2001)	All . . . are much the same, so it would not really matter if I changed.	All hotels are much the same, so it would not really matter if I changed.
18.	Swanson and Kelley (2001b).	I would not look for another (firm) to replace the present one.	I would not look for another hotel to replace the present hotel.
	Construct 3:	Overall satisfaction	
19.	Boshoff (1997)	How satisfied would you be?	How satisfied would you be?
20.	Maxham and Netemeyer (2003)	I am satisfied with my overall experience with (firm).	I am satisfied with my overall experience with the service.
21.	Maxham and Netemeyer (2003)	How satisfied are you overall with the quality of (firm)?	How satisfied are you overall with the quality of hotel?
22.	DeWitt and Brady (2003)	My overall evaluation of service provided by this firm will not be very good.	My overall evaluation of service provided by this hotel will not be very good.
23.	Mattila (2001)	How would you feel about the organization on this particular occasion?	How would you feel about the organisation on this particular occasion?
24.	Mattila (2001)	How satisfied would you be with the company's handling of the problem?	How satisfied would you be with the company's handling of the problem?

LITERATURE SOURCE OF INSTRUMENT (Continued)

	Author/s	Original Item	Adapted Item
	Construct 4:	Expectation update	
25	Brown, Cowles and Tuten (1996)	I will expect better service the next time I go to this store.	I will expect better service the next time I go to this hotel.
26	Maxham and Netemeyer (2002)	I have high expectations that [firm name] will fix the problem.	I have high expectations that hotel will fix the problem.
27	Maxham and Netemeyer (2002)	My expectations are high that I will receive compensation when I encounter a banking service problem.	My expectations are high that I will receive compensation when I encounter a hotel service problem.
28	Maxham and Netemeyer (2002)	I expect [firm name] to do whatever it takes to guarantee my satisfaction.	I expect this hotel to do whatever it takes to guarantee my satisfaction.
29	Maxham and Netemeyer (2002)	I think [firm name] will quickly respond to (banking) problems.	I think this hotel will quickly respond to the problems.
	Construct 5:	Complain Motive	
30	Kim, Kim, Im and Shin (2003)	Will you complain about your dissatisfaction to the retailer?	Will you complain about your dissatisfaction to the hotel?

LITERATURE SOURCE OF INSTRUMENT (Continued)

	Author/s	Original Item	Adapted Item
31	DeWitt and Brady (2003)	Given the circumstances, I would complain to the frontline employees.	Given the circumstances, I would complain to the frontline employees.
32	DeWitt and Brady (2003)	Taking everything into consideration, I would return home and complain to the firm by telephone.	Taking everything into consideration, I would return home and complain to the firm by telephone.
33	DeWitt and Brady (2003)	Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service.	Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service.
34	DeWitt and Brady (2003)	Given the circumstances, I would inform the firm about my problem.	Given the circumstances, I would inform the hotel about my problem.
35	DeWitt and Brady (2003)	Overall, if this had happened to me, I would be very likely to complain to the firm.	Overall, if this had happened to me, I would be very likely to complain to the hotel.
36	DeWitt and Brady (2003)	Overall, if this had happened to me, I would be very likely to voice my dissatisfaction to the firm.	Overall, if this had happened to me, I would be very likely to voice my dissatisfaction to the hotel.
	Construct 6:	WoM Referral	
37	Swanson and Kelley (2001b)	I would try to convince my friends and relatives to use this.	I would try to convince my friends and relatives to use hotel.
38	Swanson and Kelley (2001b)	I would warn others about using this.	I would warn others about using this hotel.

LITERATURE SOURCE OF INSTRUMENT (Continued)

	Author/s	Original Item	Adapted Item
39.	Swanson and Kelley (2001b)	I would be likely to convince my friends and relatives not to use this.	I would be likely to convince my friends and relatives not to use this hotel.
40.	Swanson and Kelley (2001b)	I would be likely to recommend this to others.	I would be likely to recommend this hotel to others.
41.	Mattila (2001)	Say positive things about the service company to others.	Say positive things about the service company to others.
42.	Mattila (2001)	Recommend the company to others.	Recommend the hotel to others.
43.	Mattila (2001)	Encourage friends and relatives to do business with the company.	Encourage friends and relatives to do business with the hotel.
	Construct 7:	Enhanced Loyalty	
44.	Mattila (2001)	Do more business with this company in the future.	Do more business with this hotel in the future.
45.	Patterson and Smith (2001)	I'm committed to my relationship with . . .	I'm committed to my relationship with this hotel.
46.	Patterson and Smith (2001)	The relationship is important for me to maintain.	The relationship is important for me to maintain with this hotel.

MANAGERS' CATEGORISATION OF ITEMS

No.	Items with high relevance		Less relevant item to the current study*
	Adapted item	More adaptation required	
1.	I would try to convince my friends and relatives to try this hotel.	I would try to convince my friends and relatives to use this hotel.	Would this method of complaint handling ensure that you use this hotel again in the future?
2.	I would be likely to recommend this hotel to others.	Not required	If you were thinking to book a hotel, how likely would you be to use this?
3.	I would be likely to convince my friends and relatives not to stay in this hotel.	I would be likely to convince my friends and relatives not to use this hotel.	How likely would you be to repurchase from this in the future?
4.	I would warn others about staying in this hotel.	I would warn others about using this hotel.	What is the likelihood that you will go back to this next time you need this service?
5.	I would not look for another hotel to replace the present hotel	Not required	I am not looking for another hotel to replace the present one
6.	Considering all things, I would waste a lot of time if I change this hotel	Not required	I wish to retain my relationship with the hotel
7.	I will lose a friendly and comfortable relationship if I change	Not required	Considering all things, I would waste a lot of time if I change the hotel
8.	If I change, there is a risk the new hotel won't be as good as this hotel	If I change there is a risk the new one won't be as good	All things considered, most hotels are similar

*These items were removed and not used in the final survey.

MANAGERS' CATEGORISATION OF ITEMS (Continued)

No.	Items with high relevance		Less relevant item to the current study*
	Adapted item	More adaptation (if required)	
9.	All hotels are much the same, so it would not really matter if I change hotel	Not required	How satisfied would you be?
10.	Given your experience, would you stay in this hotel again in the future?	Given your experience, would you use this hotel again in the future?	How satisfied are you overall with the quality of hotel?
11.	If I change hotel, I will have to spend a lot of time explaining my condition to a new one.	If I change hotel I will have to spend a lot of time explaining my condition to a new hotel	I am satisfied with my overall experience with the service
12.	Would you use this hotel again if you had a choice?	Would you use this again if you had a choice?	My overall evaluation of service provided by this hotel will not be very good
13.	How satisfied are you overall with the quality of service on this particular occasion?	How satisfied would you be overall with the quality of service on this particular occasion?	My expectations are high that I will receive compensation when I encounter a hotel service problem.
14.	How would you feel about the organization on this particular occasion?	Not required	Overall, if this had happened to me, I would be very likely to complaint to the hotel
15.	How satisfied would you be with the hotel's handling of the problem?	How satisfied would you be with the company's handling of the problem?	Will you complain about your dissatisfaction to the hotel?
16.	I have high expectations that this hotel will fix the problem.	Not required	Given the circumstances, I would inform the hotel about my problem
17.	I will expect better service the next time I go to this hotel	Not required	Overall, if this had happened to me, I would be very likely to voice my dissatisfaction to the hotel
18.	I expect that I will receive compensation when I encounter a service problem.	Not required	I would continue doing business with this hotel over the next few years

*These items were removed and not used in the final survey.

MANAGERS CATEGORISATION OF ITEMS (Continued)

No.	Item with high relevance		Less relevant item to the current study*
	Adapted item	More adaptation (if required)	
19.	I think this hotel will quickly respond to service problems	Not required	Say positive things about the service company to others
20.	I expect this hotel to do whatever it takes to guarantee my satisfaction.	Not required	Encourage friends and relatives to do business with the hotel
21.	Given the circumstances, I would complain to the frontline employees	Not required	In the near future, I will not use this hotel.
22.	Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service	Not required	Do more business with this hotel in the future
23.	Taking every thing into consideration, I would return home and complaint to the hotel by telephone	Taking every thing into consideration, I would return home and complaint to the firm by telephone	
24.	Overall, if this had happened to me, I would be very likely to complaint to the management	I would be very likely to complaint to the management	
25.	I would consider this company my first choice in the service category	Not required	
26.	I wish to maintain my relationship with this hotel	Not required	
27.	The relationship with this hotel is important for me to maintain	Not required	
28.	I'm committed to my relationship with this hotel	Not required	
29.	The relationship with this hotel is important for me to maintain	Not required	

*These items were removed and not used in the final survey.

EXAMPLE OF SURVEY QUESTIONNAIRE

SCENARIO ONE:

Dear participants, please read the following scenario carefully. Imagine it happened to you.

You are travelling on an important business trip. You arrive at the hotel at 10pm after having travelled the whole day. The desk clerk looks up your prepaid reservation on the computer and informs you that your room is ready. However, when you get to your room, you find that the room has not been cleaned. You call the desk clerk and told that you want a clean room. The desk clerk indicates that they cannot fix it themselves. They will have to ask the manager how to proceed. The manager contacts you and indicates that they will send up a porter to move you to a new room. The manager explains that there is a large conference in town and they have faced unanticipated demand, with people checking out late or wanting to stay an extra day. The manager apologises for the inconvenience caused. You ask whether you will be compensated for the inconvenience. The manager indicates that the hotel will pay for the nights stay.

Based on the above scenario, please answer the following questions. There is no right or wrong answer! What matters most is what you think. On the seven-point scale, please indicate the extent to which you support each statement: -----

Levels that you agree with the statements

	Strongly Disagree			Neutral			Strongly Agree
	1	2	3	4	5	6	7
1. I will expect better service the next time I go to this hotel.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2. I expect that I will receive compensation when I encounter a service problem.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3. I expect this hotel to do whatever it takes to guarantee my satisfaction.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4. Given the circumstances, I would complain to the frontline employees.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5. Given the circumstances, I would ask to see the manager so that I could voice my dissatisfaction with the poor service.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6. Taking every thing into consideration, I would return home and complain to the firm by telephone.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7. Overall, if this had happened to me, I would be very likely to complain to the management.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Levels that you agree with the statements

	Very satisfied			Neutral			Very dissatisfied
8. Overall, how satisfied would you be with the service on this particular occasion?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
9. How satisfied would you be with the hotel's handling of the problem?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
	Definitely yes			Neutral			Definitely not
10. I would be likely to recommend this hotel to others.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
11. I would be likely to convince my friends and relatives not to stay in this hotel.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
12. I would warn others about using this hotel.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
13. I would not look for another hotel to replace this hotel.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
14. Considering all things, I would waste a lot of time if I change this hotel.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
15. I will lose a friendly and comfortable relationship if I change.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
16. If I change, there is a risk the new hotel won't be as good as this hotel.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
17. All hotels are much the same, so it would not really matter if I change hotel.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
18. Given your experience, would you use this hotel again in the future?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
19. Would you use this hotel again if you had a choice?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
20. I would consider this company my first choice in the service category.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
21. I wish to retain my relationship with this hotel.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
22. The relationship with this hotel is important for me to maintain.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>

Please complete following questions:

Your gender (Please tick one) ☐ Female ☐ Male

What is Your age? (Please tick one) ☐ 18 years or under ☐ 19-30 years ☐ 31-40 years ☐ 41-50 years ☐ 51-65 years ☐ 61 or above

What is your country of residence? (Please tick one) ☐ Australia ☐ Europe ☐ USA/Canada ☐ Asia ☐ other

Over the past year, how many nights have you stayed in hotel? (Please tick one) ☐ 1 night only ☐ 2-5 nights ☐ 6-10 nights ☐ 11-30 nights ☐ 31 or more

Over the past year, how many nights have you stayed at this hotel or other in the same chain? (Please tick one) ☐ 1 night only ☐ 2-5 nights ☐ 6-10 nights ☐ 11-30 nights ☐ 31 or more

Who did the booking for you? (Please tick one) ☐ Yourself ☐ Agent ☐ Employer ☐ Other

Was this stay for: ☐ Business ☐ Holiday ☐ Other If other, Please specify

How did you book the hotel? ☐ Online ☐ Telephone ☐ Other If other, Please specify

Please write some comments how the situation could be handled on this particular occasion:

APPENIDIX B: ACCESS TO THE RESPONDENTS

REQUEST LETTER FOR PERMISSION TO CONDUCT RESEARCH

To
The Human Resources Manager
.....Hotel
Melbourne

Re: Request for assistance with PhD Project

Dear Sir,

As we discussed earlier, I am undertaking a PhD examining how service providers can modify activities when dealing with customers who experience problems with their service encounter (referred to in the academic literature as service failure). When we initially discussed the idea you indicated that you and your staff would be interested in assisting me with this project.

In regard to support what I am seeking is support in the following three areas:

- 1) The opportunity to discuss service provision, with several of your staff to validate the academic literature in the area. I would also want to discuss my proposed survey (see attached), and get their feedback on it.
- 2) To distribute the survey, incorporating staff's comments, to 100 present or past visitors of the hotel. This could be distributed via post to people from your database or to visitors on their departure. The targeted respondents need to have stayed in a hotel previously.
- 3) To have a mass distribution of the survey to the guests. I would of course be more than happy to reimburse you for the cost of the mailing.

While the results of the research will be used in my thesis and academic works, I would of course supply you with a summary of the results, as well as a discussion of the implications for dealing with service failure. In this way you and your firm would also benefit from the research.

The research process would ensure that the privacy of respondents is protected, as I will not access to their personal details, given your organisation would be distributing the survey on my behalf. I have attached a copy of my research proposal and would be keen to meet with you to discuss this further.

The university would require a written letter confirming that you are willing to assist me with the research, before can proceed.

Your assistance with my research is greatly appreciated.

Sincerely

Mahesh S Bhandari

INFORMATION TO PARTICIPANTS

Principal Investigator:	Professor Michael J. Polonsky
Associate Investigator:	Dr Robert Z. Waryszak
Student Researcher:	Mahesh Bhandari
Department and Campus:	Faculty of Business and Law, School of Hospitality, Tourism and Marketing

Dear Potential Participant,

I am undertaking a research project entitled “Impact of Varying Service Recovery Attributes on Outcomes in Process-Based and Outcome-Based Service Failure: An Exploratory Empirical Examination” as part of my PhD at Victoria University Under the supervision of Professor Michael Jay Polonsky. This research will examine the impact of service recovery attributes on customer outcomes. The findings of research will fill the existing gaps in the literature by systematically varying individual and combinations of service recovery attributes in a hypothetical scenario and examine the effect of these on customer outcomes.

As part of research and with the approval of the hotel, I am asking hotel employees to complete the attached pre-test questionnaire. This asks you to read a short scenario about a hotel stay and then answer a set of questions about how you would view the experience described. This will take approximately 30 minutes and can be handed back to me during weekdays. Your participation is completely voluntary and there will be no negative consequences to you participating or not participating. Your responses are completely anonymous and no personal identification of participants can be made from the survey.

Your return of the completed questionnaire is taken as an indication of your consent to participate in this study.

Thank you for considering participating in this study. If you have any questions in relation to this study, please contact my supervisor Professor Michael J. Polonsky at the above address.

Sincerely,

Mahesh Bhandari

Any queries about your participation in this project may be directed to the researcher (Mahesh Bhandari, ph.03 9688 5369). If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box 14428 MC, Melbourne, 8001 (Telephone no: 03-9688 4710).

APPENDIX C: PRELIMINARY TESTS

CROSS TABULATIONS

(Gender versus Purpose of Stay, Booking Method, and duration of stay)

Gender	Purpose of stay							
	Business	Holiday	Other	Business/ holiday	Business and other	Holiday and other	Business, holiday/other	Total
Female	12.8%	73.0%	6.3%	7.1%	.4%	.0%	.4%	100.0%
Male	28.7%	52.3%	5.4%	12.4%	.0%	1.0%	.2%	100.0%

Gender	Booking method							
	Online	Telephone	Other	Online/phone	Online/other	Ph/other	All	Total
Female	38.4%	37.2%	15.9%	6.5%	1.0%	.6%	.4%	100.0%
Male	43.2%	25.7%	19.8%	9.6%	.9%	.6%	.2%	100.0%

Gender	Stay over the past one year					
	One night only	2-5 nights	6-10 nights	11-30 nights	More than 30 nights	Total
Female	7.7%	27.5%	21.9%	27.6%	15.4%	100.0%
Male	7.8%	21.1%	18.4%	28.4%	24.3%	100.0%

Gender	Stay in same chain hotel over the year						
	Not stayed	One night only	2-5 nights	6-10 nights	11-30 nights	More than 30 nights	Total
Female	4.8%	24.0%	44.0%	16.0%	7.7%	3.4%	100.0%
Male	2.7%	15.6%	41.1%	22.2%	13.5%	4.9%	100.0%

Age group Versus Stay patterns

Stay in same chain hotel							
Age Group	Not stayed	One night only	2-5 nights	6-10 nights	11-30 nights	Nights>30	Total
18-30	2.5%	22.2%	45.0%	17.2%	9.8%	3.4%	100.0%
31-40	6.1%	13.2%	43.8%	16.0%	11.2%	9.7%	100.0%
41-50	3.8%	19.2%	44.1%	21.3%	10.2%	1.4%	100.0%
51-60	4.1%	20.8%	35.7%	26.2%	12.5%	.7%	100.0%
Above 60	4.7%	27.4%	24.7%	31.3%	11.9%	.0%	100.0%

Stay in hotel over the year							
Age Group	One night only	2-5 nights	6-10 nights	11-30 nights	Nights>30	Total	
18-30	7.7%	26.7%	18.5%	26.3%	20.8%	100.0%	
31-40	7.5%	22.7%	21.0%	28.2%	20.5%	100.0%	
41-50	7.1%	27.0%	29.4%	23.0%	13.5%	100.0%	
51-60	9.3%	19.2%	15.7%	34.9%	20.8%	100.0%	
Above 60	5.7%	15.3%	24.5%	38.1%	16.4%	100.0%	

Stay in hotel over the year							
Country	One night only	2-5 nights	6-10 nights	11-30 nights	Nights>30	Total	
Australia/NZ	12.7%	30.4%	21.9%	24.8%	10.2%	100.0%	
Europe	4.9%	22.0%	18.3%	27.8%	27.0%	100.0%	
USA/Canada	.0%	13.2%	14.1%	53.3%	19.4%	100.0%	
Asia	16.8%	11.2%	34.7%	20.7%	16.5%	100.0%	
Other	1.7%	25.5%	25.9%	14.4%	32.5%	100.0%	

Reliability assessment for “Switching intent”

Overall	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Alpha** if Item Deleted
swit1.13rc	15.89	17.434	.632*
swit2.14rc	15.28	12.006	.291
swit3.15rc	16.19	11.693	.235
swit4.16rc	15.45	12.349	.283
swit5.17rc	15.96	12.100	.321
Type 1 Process failure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Alpha if Item Deleted
swit2.14rc	11.31	10.294	.555
swit3.15rc	12.48	10.202	.487
swit4.16rc	11.68	10.188	.480
swit5.17rc	12.40	9.946	.600*
Type 2 Outcome failure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Alpha if Item Deleted
swit2.14rc	11.53	11.004	.565
swit3.15rc	12.35	10.503	.496
swit4.16rc	11.64	11.593	.576
swit5.17rc	12.08	12.077	.660*

*Data from the items: swit1.13 and swit5.17 were not used in relationship analysis.

**Also represented as “ α ”, “Cronbach’s alpha”, and “coefficient alpha”.

Reliability across gender

Variable	Gender type	Cronbach’s Alpha	No. of Items
Repurchase intention	1 Female	.887	3
	2 Male	.847	3
Expectations update	1 Female	.717	4
	2 Male	.697	4
Complaint motive	1 Female	.751	2
	2 Male	.745	2
Overall satisfaction	1 Female	.681	3
	2 Male	.645	3
Switching intention	1 Female	.670	3
	2 Male	.622	3
Loyalty	1 Female	.849	3
	2 Male	.870	3
WoM referral	1 Female	.796	2
	2 Male	.842	2

SKEWNESS AND KURTOSIS ACROSS LEVELS OF VARIABLES

Employee service recovery actions

Recovery Action		Rep Intent	Expt Updates	Complain Motive	Ovrl Satis	Swt Intent	Loyalty	WoM Refer
Speed	Valid N	320	320	320	320	320	320	320
High	Skewness	.045	-.757	-.226	-.137	-.253	-.024	-.254
	Kurtosis	-.588	-.341	-.635	-.617	-.034	-.788	-.042
Speed	Valid N	320	320	320	320	320	320	320
Low	Skewness	-.493	-.793	-.613	-.573	-.065	-.238	-.576
	Kurtosis	-.148	.389	.062	-.110	-.075	-.484	1.114
Apology offered	Valid N	320	320	320	320	320	320	320
	Skewness	-.047	-.719	-.318	-.058	-.191	-.079	-.307
	Kurtosis	-.882	-.395	-.674	-.608	-.051	-.790	-.221
Apology Not offered	Valid N	320	320	320	320	320	320	320
	Skewness	-.273	-.834	-.430	-.602	-.123	-.239	-.565
	Kurtosis	-.155	.554	-.170	.150	-.109	-.543	1.298

Organisational service recovery actions

Recovery Action		Rep Intent	Expt Updates	Complain Motive	Ovrl Satis	Swt Intent	Loyalty	WoM Refer
Empowered	Valid N	320	320	320	320	320	320	320
	Skewness	-.076	-.815	-.487	-.249	-.277	.045	-.460
	Kurtosis	-.725	.030	-.408	-.801	.238	-.810	.387
Not Empowered	Valid N	320	320	320	320	320	320	320
	Skewness	-.377	-1.007	-.306	-.428	-.019	-.284	-.562
	Kurtosis	-.279	.614	-.514	-.007	-.508	-.386	.232
Refund as compensation	Valid N	320	320	320	320	320	320	320
	Skewness	-.314	-.943	-.433	-.382	-.143	-.201	-.523
	Kurtosis	-.531	.468	-.362	-.454	-.151	-.474	.223
Replacement as compensation	Valid N	320	320	320	320	320	320	320
	Skewness	-.143	-.912	-.414	-.361	-.147	-.080	-.501
	Kurtosis	-.594	.226	-.434	-.488	-.120	-.868	.384

Strength of Relationship (Overall*)

Measuring Variable	Expectation Update	Complaint Motive	Overall Satisfaction	WoM Referral	Switching Intent	Repurchase Intent	Enhanced Loyalty
Expectation Update	.869						
Expectation Update	.895						
Expectation Update	.908						
Complaint Motive1		.701					
Complaint Motive2		.834					
Complaint Motive3		.594					
Complaint Motive4		.781					
Overall Satisfaction			.894				
Overall Satisfaction			.893				
Word of mouth				.712			
Word of mouth				.762			
Word of mouth				.725			
Switching Intent					-.187		
Switching Intent					.764		
Switching Intent					.771		
Switching Intent					.760		
Switching Intent					.302		
Repurchase Intent						.885	
Repurchase Intent						.920	
Repurchase Intent						.847	
Enhanced Loyalty							.921
Enhanced Loyalty							.920

*Strength of relationship within the items measuring each variable when failure type was not controlled.

Strength of Relationship (Process Failure*)

Measuring Variable	Expectation Update	Complaint Motive	Overall Satisfaction	WoM Referral	Switching Intent	Repurchase Intent	Enhanced Loyalty
Expectation Update	.730						
Expectation Update	.805						
Expectation Update	.776						
Complaint Motive1		.632					
Complaint Motive2		.826					
Complaint Motive3		.636					
Complaint Motive4		.783					
Overall Satisfaction			.917				
Overall Satisfaction			.908				
Word of mouth				.565			
Word of mouth				.604			
Word of mouth				.568			
Switching Intent					-.228		
Switching Intent					.738		
Switching Intent					.736		
Switching Intent					.764		
Switching Intent					.304		
Repurchase Intent						.854	
Repurchase Intent						.919	
Repurchase Intent						.790	
Enhanced Loyalty							.895
Enhanced Loyalty							.893

*Strength of relationship within the items measuring each variable in process failure.

Strength of Relationship (Outcome Failure*)

Measuring Variable	Expectation Update	Complaint Motive	Overall Satisfaction	WoM Referral	Switching Intent	Repurchase Intent	Enhanced Loyalty
Expectation Update	.881						
Expectation Update	.916						
Expectation Update	.921						
Complaint Motive1		.719					
Complaint Motive2		.835					
Complaint Motive3		.591					
Complaint Motive4		.780					
Overall Satisfaction			.886				
Overall Satisfaction			.886				
Word of mouth				.758			
Word of mouth				.820			
Word of mouth				.770			
Switching Intent					-.179		
Switching Intent					.773		
Switching Intent					.782		
Switching Intent					.759		
Switching Intent					.307		
Repurchase Intent						.892	
Repurchase Intent						.919	
Repurchase Intent						.863	
Enhanced Loyalty							.930
Enhanced Loyalty							.931

*Strength of relationship within the items measuring each variable in outcome failure.

Multivariate Tests Comprising Pillai's, Wilks', Hotelling's, and Roy's test (Overall)

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.990	4362.168 ^a	7.000	309.000	.000
	Wilks' Lambda	.010	4362.168 ^a	7.000	309.000	.000
	Hotelling's Trace	98.819	4362.168 ^a	7.000	309.000	.000
	Roy's Largest Root	98.819	4362.168 ^a	7.000	309.000	.000
speed	Pillai's Trace	.056	2.606 ^a	7.000	309.000	.013
	Wilks' Lambda	.944	2.606 ^a	7.000	309.000	.013
	Hotelling's Trace	.059	2.606 ^a	7.000	309.000	.013
	Roy's Largest Root	.059	2.606 ^a	7.000	309.000	.013
empowerment	Pillai's Trace	.094	4.567 ^a	7.000	309.000	.000
	Wilks' Lambda	.906	4.567 ^a	7.000	309.000	.000
	Hotelling's Trace	.103	4.567 ^a	7.000	309.000	.000
	Roy's Largest Root	.103	4.567 ^a	7.000	309.000	.000
apology	Pillai's Trace	.208	11.597 ^a	7.000	309.000	.000
	Wilks' Lambda	.792	11.597 ^a	7.000	309.000	.000
	Hotelling's Trace	.263	11.597 ^a	7.000	309.000	.000
	Roy's Largest Root	.263	11.597 ^a	7.000	309.000	.000
compensation	Pillai's Trace	.056	2.613 ^a	7.000	309.000	.012
	Wilks' Lambda	.944	2.613 ^a	7.000	309.000	.012
	Hotelling's Trace	.059	2.613 ^a	7.000	309.000	.012
	Roy's Largest Root	.059	2.613 ^a	7.000	309.000	.012

Frequency distribution of sample (overall)

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	333	52.0	52.0	52.0
	Male	307	48.0	48.0	100.0
	Total	640	100.0	100.0	
Age Group (years)	18-30	324	50.6	50.6	50.6
	31-40	137	21.4	21.4	72.0
	41-50	69	10.8	10.8	82.8
	51-60	74	11.6	11.6	94.4
	Above 60	36	5.6	5.6	100.0
Country	Australia	258	40.3	40.3	40.3
	Europe	283	44.2	44.2	84.5
	USA/Canada	53	8.3	8.3	92.8
	Asia	15	2.3	2.3	95.2
	Other	31	4.8	4.8	100.0
Nights Stayed	One night only	56	8.8	8.8	8.8
	2-5 nights	161	25.2	25.2	33.9
	6-10 nights	129	20.2	20.2	54.1
	11-30 nights	178	27.8	27.8	81.9
	More than 31 nights	116	18.1	18.1	100.0
Stay in Same	Not stayed	25	3.9	3.9	3.9
	One night only	138	21.6	21.6	25.5
	2-5 nights	277	43.3	43.3	68.8
	6-10 nights	117	18.3	18.3	87.0
	11-30 nights	57	8.9	8.9	95.9
	More than 31 nights	26	4.1	4.1	100.0
Who Booked	Yourself	389	60.8	60.8	60.8
	Agent	117	18.3	18.3	79.1
	Employer	41	6.4	6.4	85.5
	Other	72	11.3	11.3	96.7
	Self/Agent	12	1.9	1.9	98.6
	Self/employer	4	.6	.6	99.2
	Self/other	1	.2	.2	99.4
	Agent/employer	1	.2	.2	99.5
	Self/agent/employer	2	.3	.3	99.8
Purpose of Stay	Agent/emp/other	1	.2	.2	100.0
	Business	120	18.8	18.8	18.8
	Holiday	432	67.5	67.5	86.3
	Other	34	5.3	5.3	91.6
	Business/holiday	49	7.7	7.7	99.2
	Business/other	1	.2	.2	99.4
	Business/holiday	2	.3	.3	99.7
Booking Method	Business/hotel/other	2	.3	.3	100.0
	Online	263	41.1	41.1	41.1
	Telephone	213	33.3	33.3	74.4
	Other	111	17.3	17.3	91.7
	Online/phone	41	6.4	6.4	98.1
	Online/other	4	.6	.6	98.8
	Ph/other	6	.9	.9	99.7
	All	2	.3	.3	100.0

Frequency distribution of sample (across failure types)

				Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Process	Valid	Female	168	52.5	52.5	52.5
			Male	152	47.5	47.5	100.0
			Total	320	100.0	100.0	
	Outcome	Valid	Female	165	51.6	51.6	51.6
			Male	155	48.4	48.4	100.0
			Total	320	100.0	100.0	
Age Group (years)	Process	Valid	18-30	168	52.5	52.5	52.5
			31-40	59	18.4	18.4	70.9
			41-50	36	11.3	11.3	82.2
			51-60	32	10.0	10.0	92.2
			Above 60	25	7.8	7.8	100.0
			Total	320	100.0	100.0	
	Outcome	Valid	18-30	156	48.8	48.8	48.8
			31-40	78	24.4	24.4	73.1
			41-50	33	10.3	10.3	83.4
			51-60	42	13.1	13.1	96.6
			Above 60	11	3.4	3.4	100.0
			Total	320	100.0	100.0	
Country	Process	Valid	Australia/NZ	134	41.9	41.9	41.9
			Europe	141	44.1	44.1	85.9
			USA/Canada	24	7.5	7.5	93.4
			Asia	6	1.9	1.9	95.3
			Other	15	4.7	4.7	100.0
			Total	320	100.0	100.0	
	Outcome	Valid	Australia/NZ	124	38.8	38.8	38.8
			Europe	142	44.4	44.4	83.1
			USA/Canada	29	9.1	9.1	92.2
			Asia	9	2.8	2.8	95.0
			Other	16	5.0	5.0	100.0
			Total	320	100.0	100.0	
Nights Stayed	Process	Valid	1 night only	33	10.3	10.3	10.3
			2-5 nights	81	25.3	25.3	35.6
			6-10 nights	66	20.6	20.6	56.3
			11-30 nights	92	28.8	28.8	85.0
			more than 31 nights	48	15.0	15.0	100.0
			Total	320	100.0	100.0	
	Outcome	Valid	1 night only	23	7.2	7.2	7.2
			2-5 nights	80	25.0	25.0	32.2
			6-10 nights	63	19.7	19.7	51.9
			11-30 nights	86	26.9	26.9	78.8
			more than 31 nights	68	21.3	21.3	100.0
			Total	320	100.0	100.0	
Stay in Same	Process	Valid	not stayed	9	2.8	2.8	2.8
			1 night only	81	25.3	25.3	28.1
			2-5 nights	143	44.7	44.7	72.8
			6-10 nights	55	17.2	17.2	90.0
			11-30 nights	19	5.9	5.9	95.9
			more than 31 nights	13	4.1	4.1	100.0
	Outcome	Valid	Total	320	100.0	100.0	
			not stayed	16	5.0	5.0	5.0
			1 night only	57	17.8	17.8	22.8
			2-5 nights	134	41.9	41.9	64.7
			6-10 nights	62	19.4	19.4	84.1
			11-30 nights	38	11.9	11.9	95.9
			more than 31 nights	13	4.1	4.1	100.0
			Total	320	100.0	100.0	

Frequency distribution of sample (across failure types) (Continued)

				Frequency	Percent	Valid Percent	Cumulative Percent
Who Booked	Process	Valid	Yourself	197	61.6	61.6	61.6
			Agent	68	21.3	21.3	82.8
			Employer	13	4.1	4.1	86.9
			Other	36	11.3	11.3	98.1
			Self/Agent	3	.9	.9	99.1
			Self/employer	2	.6	.6	99.7
			Self/agent/employer	1	.3	.3	100.0
			Total	320	100.0	100.0	
	Outcome	Valid	Yourself	192	60.0	60.0	60.0
			Agent	49	15.3	15.3	75.3
			Employer	28	8.8	8.8	84.1
			Other	36	11.3	11.3	95.3
			Self/Agent	9	2.8	2.8	98.1
			Self/employer	2	.6	.6	98.8
			Self/other	1	.3	.3	99.1
			Agent/employer	1	.3	.3	99.4
			Self/agent/employer	1	.3	.3	99.7
			Agent/emp/other	1	.3	.3	100.0
			Total	320	100.0	100.0	
Purpose of Stay	Process	Valid	Business	47	14.7	14.7	14.7
			Holiday	249	77.8	77.8	92.5
			Other	11	3.4	3.4	95.9
			BothBNH	12	3.8	3.8	99.7
			Self/agent/employer	1	.3	.3	100.0
			Total	320	100.0	100.0	
	Outcome	Valid	Business	73	22.8	22.8	22.8
			Holiday	183	57.2	57.2	80.0
			Other	23	7.2	7.2	87.2
			BothBNH	37	11.6	11.6	98.8
			Business/other	1	.3	.3	99.1
			Holiday/other	2	.6	.6	99.7
			Business/holiday/other	1	.3	.3	100.0
			Total	320	100.0	100.0	
Booking Method	Process	Valid	Online	139	43.4	43.4	43.4
			Telephone	111	34.7	34.7	78.1
			Other	54	16.9	16.9	95.0
			online/phone	10	3.1	3.1	98.1
			Ph/other	5	1.6	1.6	99.7
			all	1	.3	.3	100.0
			Total	320	100.0	100.0	
	Outcome	Valid	Online	124	38.8	38.8	38.8
			Telephone	102	31.9	31.9	70.6
			Other	57	17.8	17.8	88.4
			online/phone	31	9.7	9.7	98.1
			online/other	4	1.3	1.3	99.4
			Ph/other	1	.3	.3	99.7
			all	1	.3	.3	100.0
			Total	320	100.0	100.0	

Matrix of Pearson Correlation: Overall***

		E1.1	E2.2	E3.3	C1.4	C2.5	C3.6	C4.7	S1.8	S2.9	W1.10	W2.11	W3.12	T1.13	T2.14	T3.15	T4.16	T5.17	R1.18	R2.19	R3.20	L1.21	L2.22
exup1.1		1																					
	Sig. 2-t																						
exup2.2	r	.637*	1																				
	Sig. 2-t	.000																					
exup3.3	(r)	.672*	.762*	1																			
	Sig. 2-t	.000	.000																				
comt1.4	(r)	.441*	.483*	.475*	1																		
	Sig. 2-t	.000	.000	.000																			
comt2.5	(r)	.439*	.427*	.482*	.486*	1																	
	Sig. 2-t	.000	.000	.000	.000																		
comt3.6	(r)	.137*	.177*	.156*	.191*	.310*	1																
	Sig. 2-t	.000	.000	.000	.000	.000																	
comt4.7	(r)	.355*	.419*	.377*	.361*	.611*	.275*	1															
	Sig. 2-t	.000	.000	.000	.000	.000	.000																
ovst1.8	(r)	.055*	.134*	.150*	.088*	.036*	.144*	-.007	1														
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.442															
ovst2.9	(r)	.086*	.189*	.239*	.123*	.074*	-.001	.039*	.597*	1													
	Sig. 2-t	.000	.000	.000	.000	.000	.947	.000	.000														
wom1.10	(r)	.213*	.221*	.208*	.103*	.141*	.236*	.115*	.378*	.257*	1												
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.000	.000	.000													
wom2.11rc	(r)	.103*	.156*	.127*	.046*	.101*	.071*	.093*	.245*	.179*	.399*	1											
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000												
wom3.12rc	(r)	.094*	.104*	.146*	.115*	.129*	-.006	.081*	.252*	.227*	.358*	.435*	1										
	Sig. 2-t	.000	.000	.000	.000	.000	.510	.000	.000	.000	.000	.000											

*Correlation is significant at the 0.01 level. **Correlation is significant at the 0.05 level. *** Numbers above the diagonal are omitted
Note: Abbreviation used for consumer outcomes: Expectation update (E); Complaint motive (C); Overall Satisfaction (S); and WoM referral (W).

Matrix of Pearson correlation: Overall* (Continued)**

		E1.1	E2.2	E3.3	C1.4	C2.5	C3.6	C4.7	S1.8	S2.9	W1.10	W2.11	W3.12	T1.13	T2.14	T3.15	T4.16	T5.17	R1.18	R2.19	R3.20	L1.21	L2.22
swit1.13rc	(r)	.020#	-.003	.014	-.031*	.028*	.033*	.001	.008	.023#	-.010	.041*	.064*	1									
	Sig. 2-t	.043	.779	.144	.002	.004	.001	.942	.433	.018	.313	.000	.000										
swit2.14rc	(r)	-.113*	-.133*	-.141*	-.083*	-.123*	-.210*	-.192*	-.050*	-.033*	-.096*	-.064*	-.078*	-.135*	1								
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000									
swit3.15rc	(r)	-.190*	-.203*	-.202*	-.186*	-.173*	-.114*	-.216*	.050*	.044*	-.051*	-.085*	-.088*	-.162*	.369*	1							
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000								
swit4.16rc	(r)	-.175*	-.159*	-.133*	-.140*	-.106*	-.130*	-.159*	.071*	.046*	-.075*	-.066*	-.085*	-.133*	.358*	.409*	1						
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000							
swit5.17rc	(r)	-.239*	-.245*	-.222*	-.174*	-.250*	-.041*	-.206*	.044*	-.022#	-.045*	-.092*	-.067*	-.010	.193*	.315*	.186*	1					
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.000	.000	.025	.000	.000	.000	.321	.000	.000	.000						
repi1.18	(r)	.131*	.143*	.193*	.053*	.125*	.133*	.013	.448*	.414*	.384*	.293*	.317*	.023#	-.017	.039*	.034*	.040*	1				
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.188	.000	.000	.000	.000	.000	.017	.086	.000	.000	.000					
repi2.19	(r)	.173*	.190*	.210*	.096*	.134*	.133*	.034*	.465*	.427*	.384*	.258*	.262*	.024#	-.061*	.043*	.067*	-.012	.765*	1			
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.013	.000	.000	.000	.219	.000				
repi3.20	(r)	.107*	.110*	.119*	.095*	.072*	.140*	-.006	.416*	.353*	.277*	.186*	.181*	-.102*	-.017	.119*	.038*	.025#	.577*	.673*	1		
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.504	.000	.000	.000	.000	.000	.000	.089	.000	.000	.012	.000	.000			
enlo1.21	(r)	.125*	.148*	.189*	.040*	.072*	.061*	.016	.443*	.392*	.287*	.191*	.238*	-.094*	-.041*	.102*	.112*	.040*	.645*	.642*	.661*	1	
	Sig. 2-t	.000	.000	.000	.000	.000	.000	.095	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
enlo2.22	(r)	.088*	.094*	.145*	.007	.086*	.086*	.019	.401*	.342*	.253*	.172*	.230*	-.033*	-.025#	.155*	.066*	.052*	.532*	.511*	.560*	.696*	1
	Sig. 2-t	.000	.000	.000	.458	.000	.000	.053	.000	.000	.000	.000	.000	.001	.010	.000	.000	.000	.000	.000	.000	.000	

*Correlation is significant at the 0.01 level. #Correlation is significant at the 0.05 level. *** Numbers above the diagonal are omitted

Note: Abbreviation used for consumer outcomes: Switching intent (T); Repurchase Intent (R); and Enhance Loyalty (L).

Correlation across failure type (Process failure)

Type1	E1.1	E2.2	E3.3	C1.4	C2.5	C3.6	C4.7	S1.8	S2.9	W1.10	W2.11	W3.12	T1.13	T2.14	T3.15	T4.16	T5.17	R1.18	R2.19	R3.20	L1.21	L2.22
exup1.1	1																					
exup2.2	.323**	1																				
	.000																					
exup3.3	.383**	.473**	1																			
	.000	.000																				
comt1.4	.145**	.289**	.267**	1																		
	.000	.000	.000																			
comt2.5	.161**	.220**	.281**	.330**	1																	
	.000	.000	.000	.000																		
comt3.6	.091**	.158**	.138**	.198**	.372**	1																
	.000	.000	.000	.000	.000																	
comt4.7	.152**	.261**	.208**	.287**	.676**	.275**	1															
	.000	.000	.000	.000	.000	.000																
ovst1.8	-.109**	.001	.053**	-.079**	-.153**	-.055**	-.253**	1														
	.000	.976	.006	.000	.000	.004	.000															
ovst2.9	-.174**	-.060**	-.014	-.044*	-.156**	-.042*	-.207**	.666**	1													
	.000	.002	.469	.022	.000	.029	.000	.000														
wom1.10	-.041*	.035	.029	-.041*	-.001	.036	-.064**	.365**	.310**	1												
	.031	.068	.134	.033	.953	.058	.001	.000	.000													
wom2.11rc	-.006	-.020	-.059**	-.078**	-.027	.011	-.051**	.135**	.116**	.292**												
	.757	.307	.002	.000	.161	.554	.008	.000	.000	.000												
wom3.12rc	-.133**	-.144**	-.079**	-.032	-.024	-.045*	-.091**	.239**	.204**	.384**	.343**	1										
	.000	.000	.000	.099	.219	.019	.000	.000	.000	.000	.000											

Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level. * Numbers above the diagonal are omitted
Note: Abbreviation used for consumer outcomes: Expectation update (E); Complaint motive (C); Overall Satisfaction (S); and WoM referral (W).

Correlation across failure type (Process failure) (Continued)

Type1	E1.1	E2.2	E3.3	C1.4	C2.5	C3.6	C4.7	S1.8	S2.9	W1.10	W2.11	W3.12	T1.13	T2.14	T3.15	T4.16	T5.17	R1.18	R2.19	R3.20	L1.21	L2.22
swit1.13rc	-.009	-.107**	-.053**	.016	-.012	.023	.004	-.016	.041*	.056**	.076**	.030	1									
	.625	.000	.006	.404	.530	.229	.840	.405	.031	.003	.000	.122										
swit2.14rc	.051**	-.002	.111**	-.035	-.027	-.107**	-.096**	.093**	.075**	.098**	-.060**	-.066**	-.287**	1								
	.008	.897	.000	.066	.152	.000	.000	.000	.000	.000	.002	.001	.000									
swit3.15rc	-.021	-.044*	-.046*	-.107**	-.062**	-.037	-.198**	.279**	.236**	.128**	.022	.153**	-.068**	.270**	1							
	.274	.021	.016	.000	.001	.053	.000	.000	.000	.000	.249	.000	.000	.000								
swit4.16rc	.012	-.060**	.016	-.050**	-.103**	-.204**	-.166**	.204**	.154**	.024	-.035	.032	-.142**	.332**	.405**	1						
	.530	.002	.413	.009	.000	.000	.000	.000	.000	.217	.067	.091	.000	.000	.000							
swit5.17rc	-.075**	-.035	-.050**	-.092**	-.063**	-.090**	-.088**	.115**	-.018	.102**	-.014	.045*	-.094**	.178**	.274**	.234**	1					
	.000	.070	.009	.000	.001	.000	.000	.000	.339	.000	.479	.019	.000	.000	.000	.000						
repi1.18	-.147**	-.158**	-.102**	-.210**	-.128**	-.072**	-.198**	.538**	.516**	.362**	.199**	.250**	.022	.026	.306**	.263**	.169**	1				
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.242	.181	.000	.000	.000					
repi2.19	-.054**	-.135**	-.128**	-.133**	-.172**	-.093**	-.245**	.487**	.519**	.347**	.119**	.226**	.070**	.021	.296**	.265**	.150**	.764**	1			
	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.266	.000	.000	.000	.000				
repi3.20	-.064**	-.061**	-.043*	-.054**	-.106**	-.053**	-.224**	.390**	.357**	.122**	.014	.186**	-.042*	.023	.263**	.242**	.107**	.427**	.593**	1		
	.001	.002	.026	.005	.000	.005	.000	.000	.000	.000	.477	.000	.029	.239	.000	.000	.000	.000	.000			
enlo1.21	-.066**	-.056**	.010	-.116**	-.111**	-.022	-.210**	.445**	.317**	.146**	-.011	.184**	-.046*	.053**	.336**	.301**	.169**	.607**	.601**	.573**	1	
	.001	.003	.601	.000	.000	.247	.000	.000	.000	.000	.574	.000	.015	.006	.000	.000	.000	.000	.000	.000		
enlo2.22	-.033	-.035	.113**	-.148**	-.042*	.046*	-.162**	.437**	.366**	.239**	.139**	.308**	.045*	.027	.290**	.120**	.116**	.471**	.408**	.389**	.598**	1
	.086	.067	.000	.000	.028	.016	.000	.000	.000	.000	.000	.000	.020	.167	.000	.000	.000	.000	.000	.000	.000	

Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level. * Numbers above the diagonal are omitted

Note: Abbreviation used for consumer outcomes: Switching intent (T); Repurchase Intent (R); and Enhance Loyalty (L).

Correlation across failure type (Outcome failure)

Type2	E1.1	E2.2	E3.3	C1.4	C2.5	C3.6	C4.7	S1.8	S2.9	W1.10	W2.11	W3.12	T1.13	T2.14	T3.15	T4.16	T5.17	R1.18	R2.19	R3.20	L1.21	L2.22
exup1.1	1																					
exup2.2	.688**	1																				
	.000																					
exup3.3	.694**	.812**	1																			
	.000	.000																				
comt1.4	.497**	.525**	.512**	1																		
	.000	.000	.000																			
comt2.5	.493**	.472**	.519**	.525**	1																	
	.000	.000	.000	.000																		
comt3.6	.182**	.202**	.190**	.202**	.303**	1																
	.000	.000	.000	.000	.000																	
comt4.7	.401**	.458**	.414**	.380**	.592**	.282**	1															
	.000	.000	.000	.000	.000	.000																
ovst1.8	.078**	.163**	.163**	.134**	.088**	.218**	.066**	1														
	.000	.000	.000	.000	.000	.000	.000															
ovst2.9	.114**	.242**	.274**	.161**	.131**	.025*	.107**	.571**	1													
	.000	.000	.000	.000	.000	.025	.000	.000														
wom1.10	.270**	.270**	.245**	.143**	.180**	.305**	.167**	.380**	.237**	1												
	.000	.000	.000	.000	.000	.000	.000	.000	.000													
wom2.11rc	.107**	.195**	.152**	.075**	.133**	.102**	.134**	.280**	.189**	.434**	1											
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000												
wom3.12rc	.153**	.176**	.202**	.161**	.173**	.004	.131**	.258**	.238**	.351**	.470**	1										
	.000	.000	.000	.000	.000	.725	.000	.000	.000	.000	.000											

Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level. * Numbers above the diagonal are omitted
Note: Abbreviation used for consumer outcomes: Expectation update (E); Complaint motive (C); Overall Satisfaction (S); and WoM referral (W).

Correlation across failure type (Outcome failure) (Continued)

Type2	E1.1	E2.2	E3.3	C1.4	C2.5	C3.6	C4.7	S1.8	S2.9	W1.10	W2.11	W3.12	T1.13	T2.14	T3.15	T4.16	T5.17	R1.18	R2.19	R3.20	L1.21	L2.22
swit1.13rc	.010	.014	.014	-.051**	.034**	.041**	-.003	.011	.010	-.032**	.024*	.074**	1									
swit2.14rc	.368	.223	.223	.000	.003	.000	.787	.337	.378	.004	.032	.000										
	.185**	.190**	.228**	.111**	.160**	.236**	.228**	.106**	.083**	-.164**	-.077**	-.081**	.097**	1								
swit3.15rc	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000									
	.233**	.247**	.240**	.209**	.204**	.139**	.222**	-.023*	-.013	-.106**	-.119**	-.159**	.187**	.402**	1							
swit4.16rc	.000	.000	.000	.000	.000	.000	.000	.042	.249	.000	.000	.000	.000	.000								
	.229**	.191**	.173**	.170**	.109**	.106**	.158**	.027*	.010	-.106**	-.079**	-.120**	.132**	.366**	.411**	1						
swit5.17rc	.000	.000	.000	.000	.000	.000	.000	.016	.354	.000	.000	.000	.000	.000	.000							
	.274**	.303**	.257**	.195**	.305**	.032**	.242**	.024*	-.013	-.094**	-.115**	-.106**	.022	.209**	.330**	.172**	1					
repi1.18	.000	.000	.000	.000	.000	.005	.000	.035	.244	.000	.000	.000	.051	.000	.000	.000						
	.165**	.208**	.234**	.119**	.188**	.212**	.069**	.413**	.370**	.389**	.316**	.343**	.016	.044**	.040**	.039**	.006	1				
repi2.19	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.164	.000	.000	.001	.608					
	.194**	.261**	.259**	.152**	.212**	.223**	.111**	.453**	.385**	.394**	.296**	.279**	.002	.105**	.033**	.002	.058**	.760**	1			
repi3.20	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.884	.000	.003	.825	.000	.000				
	.121**	.142**	.134**	.130**	.117**	.217**	.055**	.421**	.342**	.327**	.238**	.182**	.129**	.042**	.075**	.030**	.004	.621**	.695**	1		
enlo1.21	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.009	.753	.000	.000			
	.135**	.186**	.203**	.073**	.116**	.106**	.081**	.438**	.404**	.332**	.252**	.262**	.120**	.091**	.029*	.048**	.004	.651**	.648**	.688**	1	
enlo2.22	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.011	.000	.710	.000	.000	.000		
	.103**	.123**	.143**	.050**	.120**	.107**	.073**	.385**	.328**	.256**	.179**	.206**	.062**	.050**	.113**	.047**	.033**	.550**	.543**	.617**	.731**	1
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.000	.000	.000	.000	

Correlation is significant at the 0.01 level. *Correlation is significant at the 0.05 level. * Numbers above the diagonal are omitted

Note: Abbreviation used for consumer outcomes: Switching intent (T); Repurchase Intent (R); and Enhance Loyalty (L).

APPENDIX D: HYPOTHESIS SUPPORT

Overall Direct effect	H1.1: High response speed of service recovery in service failure situations will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H1.1a H1.1b H1.1c H1.1d H1.1e H1.1f H1.1g	All supported
	H1.2: Apology as a service recovery action in service failure situations will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H1.2a H1.2b H1.2c H1.2d H1.2e H1.2f H1.2g	All supported
	H1.3: In a service failure situation, improvement in consumer outcomes: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will differ with the type of compensation (refund versus replacement) offered.	H1.3a H1.3b H1.3c H1.3d H1.3e H1.3f H1.3g	All supported

APPENDIX D: HYPOTHESIS SUPPORT (Continued)

Overall Direct effect	H1.4 Recovery activities undertaken by an empowered employee in a service failure will improve: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H1.4a H1.4b H1.4c H1.4d H1.4e H1.4f H1.4g	All supported
Overall Two-way	H2.1a The response speed (low versus high) in a service failure situation will show two-way interaction effect with compensation on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H2.1a.a H2.1a.b H2.1a.c H2.1a.d H2.1a.e H2.1a.f H2.1a.g	Supported Supported Supported Supported Non supported Supported Not supported
	H2.1b The response speed (low versus high) in a service failure situation will show two-way interaction effect with empowerment on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H2.1b.a H2.1b.b H2.1b.c H2.1b.d H2.1b.e H2.1b.f H2.1b.g	Supported Supported Supported Supported Non supported Supported Not supported

APPENDIX D: HYPOTHESIS SUPPORT (Continued)

Overall Two-way	H2.2a Apology (no apology versus apology) offered for the inconvenience caused by service failure will show two-way interaction effect with compensation on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H2.2a.a	Supported
		H2.2a.b	Supported
		H2.2a.c	Supported
		H2.2a.d	Supported
		H2.2a.e	Not supported
		H2.2a.f	Supported
		H2.2a.g	Supported
	H2.2b Apology (no apology versus apology) offered for the inconvenience caused by service failure will show two-way interaction effect with empowerment on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H2.2b.a	Supported
		H2.2b.b	Supported
		H2.2b.c	Supported
		H2.2b.d	Supported
		H2.2b.e	Supported
		H2.2b.f	Not supported
		H2.2b.g	Not supported
	H2.3 There will be a two-way interaction effect of organisational service recovery actions (apology and speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H2.3.a	Supported
		H2.3.b	Supported
		H2.3.c	Not supported
		H2.3.d	Supported
		H2.3.e	Supported
		H2.3.f	Supported
		H2.3.g	Supported

APPENDIX D: HYPOTHESIS SUPPORT (Continued)

Overall Two-way	H2.4 There will be a two-way interaction effect of employee service recovery actions (empowerment and compensation) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral.	H2.3.a H2.3.b H2.3.c H2.3.d H2.3.e H2.3.f H2.3.g	Not supported Supported Not supported Not supported Not supported Not supported Supported
Overall Three-way	H2.5a Service recovery actions will show three-way interaction effects on: a) expectation; b) complaint motive; and c) switching intent in an overall service failure situation.	H2.5a.a H2.5a.b H2.5a.c	Not supported
	H2.5b Service recovery actions will show three-way interaction effects on: a) repurchase intent; b) enhanced loyalty; c) overall satisfaction; and d) WoM referral in an overall service failure situation.	H2.5b.a H2.5b.b H2.5b.c H2.5b.d	Not supported
Direct effect across failure types	H3.1: The effects of response speed (low versus high) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and d) WoM referral will not be similar in both process failure and outcome failure.	H3.1a H3.1b H3.1c H3.1d H3.1e H3.1f H3.1g	Not supported Supported Supported Supported Supported Supported Not supported

APPENDIX D: HYPOTHESIS SUPPORT (Continued)

Direct effect across failure types	H3.2: The effects of apology (no apology versus apology) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.	H3.2a	Not supported
		H3.2b	Supported
		H3.2c	Supported
		H3.2d	Not supported
		H3.2e	Not supported
		H3.2f	Not supported
		H3.2g	Not supported
	H3.3: The effects of empowerment (no empowerment versus empowerment) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.	H3.3a	Not supported
		H3.3b	Supported
		H3.3c	Supported
		H3.3d	Not supported
		H3.3e	Supported
		H3.3f	Not supported
		H3.3g	Not supported
	H3.4: The effects of types of compensation (refund versus replacement) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.	H3.4a	Not supported
		H3.4b	Supported
		H3.4c	Supported
		H3.4d	Supported
		H3.4e	Not supported
		H3.4f	Not supported
		H3.4g	Supported

APPENDIX D: HYPOTHESIS SUPPORT (Continued)

Two-way across failure types	H4.1: The two-way interaction effects of services recovery actions (compensations, empowerment, apology and response speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.	H4.1	Supported
Three-way across failure types	H4.2 The three-way interaction effects of services recovery actions (compensation, empowerment, apology and response speed) on: a) repurchase intent; b) expectation update; c) complaint motive; d) overall satisfaction; e) switching intent; f) enhanced loyalty; and g) WoM referral will not be similar in both process failure and outcome failure.	H4.2	Supported

APPENDIX E: MEAN COMPARISONS FOR THREE-WAY INTERACTIONS

A total of four combinations were possible to undertake three-way interaction analysis with four independent variables. They are:

1. speed * empowerment * apology;
2. speed * empowerment * compensation;
3. speed * apology * compensation; and
4. Empowerment * apology * compensation

Four Cells of mean comparison are possible for a combination of any three dependent variables with two levels each. For examples, if three variables: 1. Apology, 2. Empowerment, and 3. Speed interact, following four cells of means values are possible:

Cell One: No apology, No empowerment, Speed (Low vs. High)

Dependent Variable	speed	N	Mean	Std. Dev.	Std. Error
ReplIntent	low	1560	2.6459	1.15034	.02912
	high	920	2.8830	1.35196	.04457
ExUpdate	low	1560	3.9284	1.70238	.04310
	high	920	4.6442	1.22964	.04054
ComMotive	low	1560	3.8934	1.40859	.03566
	high	920	4.3312	1.39796	.04609
OvrSatis	low	1560	3.3843	1.34455	.03404
	high	920	3.2565	1.58714	.05233
VaySwtInt	low	1560	4.5096	1.08523	.02748
	high	920	4.1225	1.23013	.04056
EnhLoyalty	low	1560	2.7830	1.24263	.03146
	high	920	2.7630	1.37968	.04549
RefWoM	low	1560	3.0487	1.14816	.02907
	high	920	3.9870	.81905	.02700

Independent Samples Tests

Dependent Variable	Levene's Test (Variances)		t-test (Equality of Means)			
	F	Sig.	t	df	Sig. (2-t)	
RepIntent	34.605	.000	-4.640	2478	.000	
ExUpdate	165.328	.000	-11.152	2478	.000	
ComMotive	.080	.777	-7.498	2478	.000	
OvrSatis	44.644	.000	2.136	2478	.033	
VaySwtInt	20.750	.000	8.162	2478	.000	
EnhLoyalty	11.812	.001	.371	2478	.711	
RefWoM	96.536	.000	-21.737	2478	.000	

Cell Two: No apology, Empowerment, Speed (Low vs. High)

Dependent Variable	speed	N	Mean	Std. Dev.	Std. Error
RepIntent	low	1880	2.8271	1.28047	.02953
	high	1240	4.4562	1.05870	.03007
ExUpdate	low	1880	4.8385	1.44424	.03331
	high	1240	5.9078	.85050	.02415
ComMotive	low	1880	4.4119	1.31022	.03022
	high	1240	5.3919	1.01648	.02887
OvrSatis	low	1880	3.3093	1.29967	.02997
	high	1240	4.3032	1.24759	.03543
VaySwtInt	low	1880	4.3828	.96266	.02220
	high	1240	3.7360	1.01023	.02869
EnhLoyalty	low	1880	2.9681	1.18916	.02743
	high	1240	3.9032	1.15937	.03292
RefWoM	low	1880	3.0520	1.08253	.02497
	high	1240	4.4535	1.07398	.03050

Independent Samples Tests

Dependent Variable	Levene's Test (Variances)		t-test (Equality of Means)			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
RepIntent	94.632	.000	-37.192	3118	.000	-1.62906
ExUpdate	454.550	.000	-23.520	3118	.000	-1.06932
ComMotive	83.841	.000	-22.285	3118	.000	-.98006
OvrSatis	3.976	.046	-21.238	3118	.000	-.99392
VaySwtInt	7.894	.005	18.006	3118	.000	.64678
EnhLoyalty	23.662	.000	-21.710	3118	.000	-.93514
RefWoM	42.684	.000	-35.501	3118	.000	-1.40154

Cell Three: Apology, No empowerment, Speed (Low vs. High)

Dependent Variable	speed	N	Mean	Std. Dev.	Std. Error
RepIntent	low	1560	2.6459	1.15034	.02912
	high	920	2.8830	1.35196	.04457
ExUpdate	low	1560	3.9284	1.70238	.04310
	high	920	4.6442	1.22964	.04054
ComMotive	low	1560	3.8934	1.40859	.03566
	high	920	4.3312	1.39796	.04609
OvrSatis	low	1560	3.3843	1.34455	.03404
	high	920	3.2565	1.58714	.05233
VaySwtInt	low	1560	4.5096	1.08523	.02748
	high	920	4.1225	1.23013	.04056
EnhLoyalty	low	1560	2.7830	1.24263	.03146
	high	920	2.7630	1.37968	.04549
RefWoM	low	1560	3.0487	1.14816	.02907
	high	920	3.9870	.81905	.02700

Independent Samples Tests

Dependent Variable	Levene's Test (Variances)		t-test (Equality of Means)			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
RepIntent	34.605	.000	-4.640	2478	.000	-.23703
ExUpdate	165.328	.000	-11.152	2478	.000	-.71578
ComMotive	.080	.777	-7.498	2478	.000	-.43778
OvrSatis	44.644	.000	2.136	2478	.033	.12777
VaySwInt	20.750	.000	8.162	2478	.000	.38715
EnhLoyalty	11.812	.001	.371	2478	.711	.01997
RefWoM	96.536	.000	-21.737	2478	.000	-.93824

Cell Four: Apology, Empowerment, Speed (Low vs. High)

Dependent Variable	speed	N	Mean	Std. Dev.	Std. Error
ExUpdate	low	1720	5.4764	1.28995	.03110
	high	1080	6.1500	.80297	.02443
ComMotive	low	1720	4.8401	1.22498	.02954
	high	1080	5.6012	1.16581	.03547
VaySwtInt	low	1720	3.8839	1.13210	.02730
	high	1080	3.6463	1.01872	.03100
RepIntent	low	1720	3.7814	1.34310	.03238
	high	1080	4.5383	1.14042	.03470
OvrSatis	low	1720	4.3015	1.23290	.02973
	high	1080	4.6685	1.12303	.03417
EnhLoyalty	low	1720	3.5747	1.44114	.03475
	high	1080	4.1051	1.02373	.03115
RefWoM	low	1720	4.0364	1.14530	.02762
	high	1080	4.6173	.71195	.02166

Independent Samples Tests

Dependent Variable	Levene's Test (Variances)		t-test (Equality of Means)			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
ExUpdate	220.017	.000	-15.391	2798	.000	-.67364
ComMotive	.229	.632	-16.303	2798	.000	-.76112
VaySwtInt	32.129	.000	5.616	2798	.000	.23762
RepIntent	23.469	.000	-15.365	2798	.000	-.75688
OvrSatis	1.688	.194	-7.933	2798	.000	-.36707
EnhLoyalty	208.926	.000	-10.539	2798	.000	-.53038
RefWoM	137.707	.000	-14.951	2798	.000	-.58085

APPENDIX F: INDEPENDENT SAMPLE t-TESTS AMONG THREE VARIABLES

Appendix E (page 290) included both actual mean values and independent sample t-tests for one of the four combinations of independent variables. Following tables include independent samples t-tests for remaining three of four combinations of three independent variables. That is, 1. Compensation, empowerment, and speed, 2. Apology, compensation, and speed, 3. Apology, compensation, and empowerment. Meaning, actual mean values are not included.

Independent sample test of cells with compensation x empowerment x speed

Refund, no empowerment, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	34.605	.000	-4.640	2478	.000
ExUpdate	165.328	.000	-11.152	2478	.000
ComMotive	.080	.777	-7.498	2478	.000
OvrSatis	44.644	.000	2.136	2478	.033
VaySwtInt	20.750	.000	8.162	2478	.000
EnhLoyalty	11.812	.001	.371	2478	.711
RefWoM	96.536	.000	-21.737	2478	.000

Refund, empowerment, low vs. high speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	19.171	.000	-5.573	2238	.000
ExUpdate	173.189	.000	-5.204	2238	.000
ComMotive	157.487	.000	-8.345	2238	.000
OvrSatis	50.099	.000	4.136	2238	.000
VaySwtInt	40.062	.000	8.827	2238	.000
EnhLoyalty	.044	.835	.621	2238	.535
RefWoM	35.160	.000	-21.847	2238	.000

Replacement, empowerment, low vs. high speed	Levene's Test (Variances)		t-test (Equality of Means)			
	F	Sig.	t	df	Sig.	
ReplIntent	10.017	.002	-27.388	3038	.000	
ExUpdate	545.092	.000	-27.501	3038	.000	
ComMotive	29.066	.000	-25.862	3038	.000	
OvrSatis	23.168	.000	-16.184	3038	.000	
VaySwtInt	56.354	.000	13.541	3038	.000	
EnhLoyalty	87.545	.000	-11.000	3038	.000	
RefWoM	49.992	.000	-23.135	3038	.000	

Replacement, No empowerment, low vs. high speed	Levene's Test (Variances)		t-test (Equality of Means)			
	F	Sig.	t	df	Sig.	
ReplIntent	5.763	.016	-8.251	2398	.000	
ExUpdate	106.484	.000	-8.800	2398	.000	
ComMotive	13.742	.000	-8.095	2398	.000	
OvrSatis	24.001	.000	-5.966	2398	.000	
VaySwtInt	117.210	.000	12.644	2398	.000	
EnhLoyalty	.861	.354	-1.666	2398	.096	
RefWoM	68.670	.000	-26.203	2398	.000	

Independent sample test of cells with apology x compensation x speed

No apology, Refund, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	34.937	.000	-23.406	2718	.000
ExUpdate	330.026	.000	-14.264	2718	.000
ComMotive	56.953	.000	-15.981	2718	.000
OvrSatis	150.765	.000	-8.000	2718	.000
VaySwtInt	13.949	.000	16.051	2718	.000
EnhLoyalty	12.633	.000	-16.233	2718	.000
RefWoM	55.975	.000	-30.860	2718	.000

No apology, Replacement, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	46.795	.000	-18.142	2878	.000
ExUpdate	116.652	.000	-18.530	2878	.000
ComMotive	.058	.810	-13.183	2878	.000
OvrSatis	18.607	.000	-11.150	2878	.000
VaySwtInt	209.563	.000	10.060	2878	.000
EnhLoyalty	4.684	.031	-6.146	2878	.000
RefWoM	39.967	.000	-27.321	2878	.000

Apology, Refund, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	82.386	.000	-7.979	2398	.000
ExUpdate	.265	.607	-2.477	2398	.013
ComMotive	37.137	.000	-6.413	2398	.000
OvrSatis	25.059	.000	-.477	2398	.634
VaySwtInt	99.792	.000	3.999	2398	.000
EnhLoyalty	109.663	.000	-5.093	2398	.000
RefWoM	86.001	.000	-19.086	2398	.000

Apology, Replacement, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	1.544	.214	-19.518	2558	.000
ExUpdate	262.463	.000	-18.347	2558	.000
ComMotive	.058	.809	-22.296	2558	.000
OvrSatis	42.381	.000	-12.034	2558	.000
VaySwtInt	10.065	.002	16.748	2558	.000
EnhLoyalty	25.729	.000	-8.173	2558	.000
RefWoM	77.572	.000	-24.025	2558	.000

Independent sample test of cells with apology x compensation x empowerment

No apology, Refund, Emp (Empower vs No empower)	Levene's Test (Variances)		t-test (equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	13.678	.000	-12.483	2718	.000
ExUpdate	33.111	.000	-18.504	2718	.000
ComMotive	55.118	.000	-13.384	2718	.000
OvrSatis	9.342	.002	-7.592	2718	.000
VaySwInt	63.834	.000	5.316	2718	.000
EnhLoyalty	95.213	.000	-13.879	2718	.000
RefWoM	63.802	.000	-.245	2718	.806

No apology, Replacement, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
RepIntent	147.620	.000	-16.254	2878	.000
ExUpdate	99.452	.000	-20.089	2878	.000
ComMotive	13.380	.000	-15.627	2878	.000
OvrSatis	40.892	.000	-6.192	2878	.000
VaySwInt	5.446	.020	6.401	2878	.000
EnhLoyalty	13.121	.000	-9.675	2878	.000
RefWoM	3.186	.074	-9.177	2878	.000

Apology, Refund, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
Replntent	2.602	.107	-12.235	2398	.000
ExUpdate	.310	.578	-4.288	2398	.000
ComMotive	35.011	.000	2.205	2398	.028
OvrSatis	96.326	.000	-1.799	2398	.072
VaySwtInt	.607	.436	4.591	2398	.000
EnhLoyalty	13.097	.000	-7.771	2398	.000
RefWoM	6.838	.009	-8.261	2398	.000

Apology, Replacement, high vs. low speed	Levene's Test (Variances)		t-test (Equality of Means)		
	F	Sig.	t	df	Sig.
Replntent	21.132	.000	-8.348	2558	.000
ExUpdate	21.716	.000	4.633	2558	.000
ComMotive	1.502	.220	.119	2558	.905
OvrSatis	67.448	.000	-6.051	2558	.000
VaySwtInt	28.378	.000	1.182	2558	.237
EnhLoyalty	11.934	.001	-12.982	2558	.000
RefWoM	2.531	.112	-2.705	2558	.007

APPENDIX G: GRAPHS SHOWING INTERACTION EFFECTS

Figure 1: Graphs showing interaction effect of empowerment at two levels of speed (process failure)

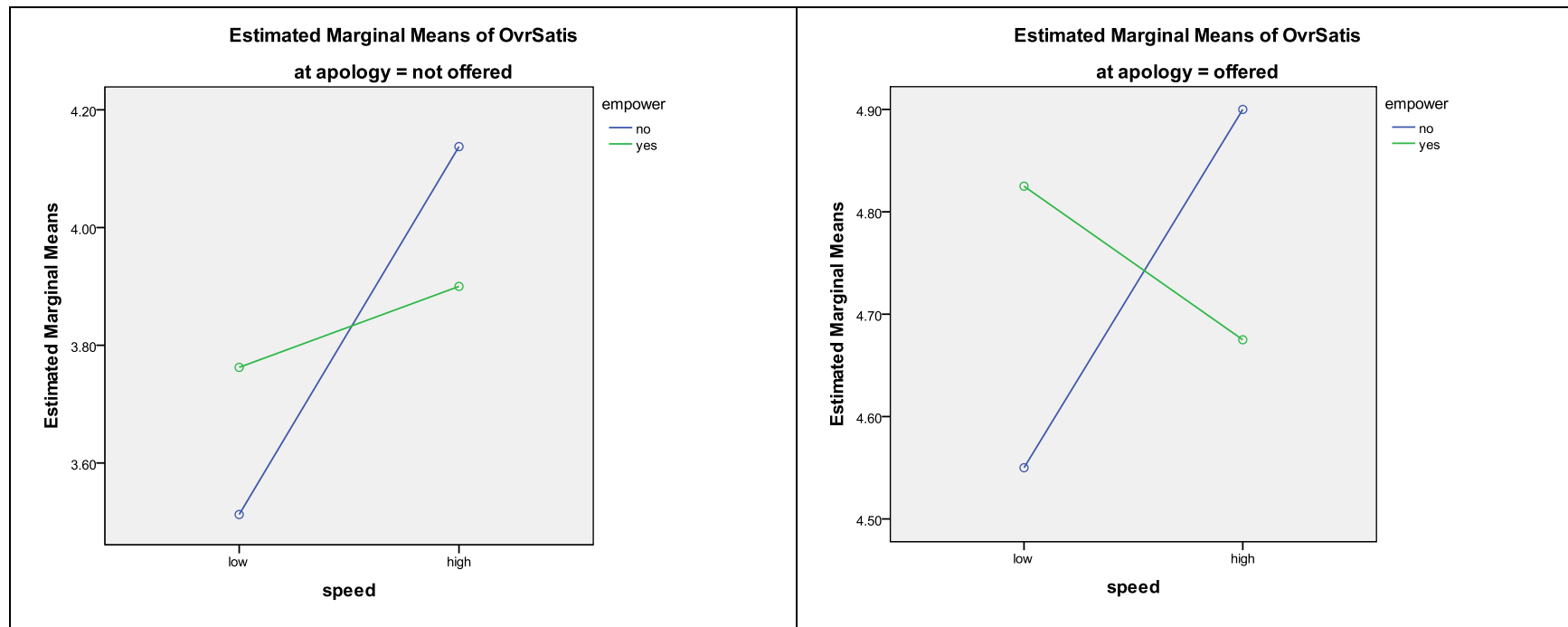


Figure 2: Graphs showing interaction effect of empowerment and speed with speed (outcome failure)

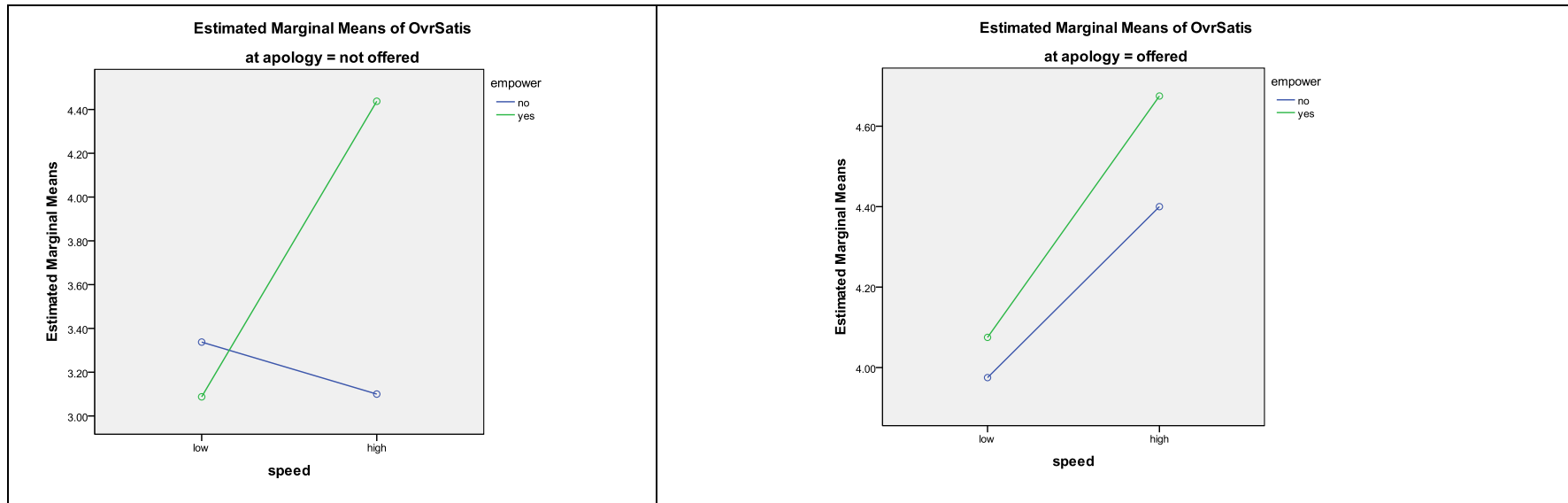
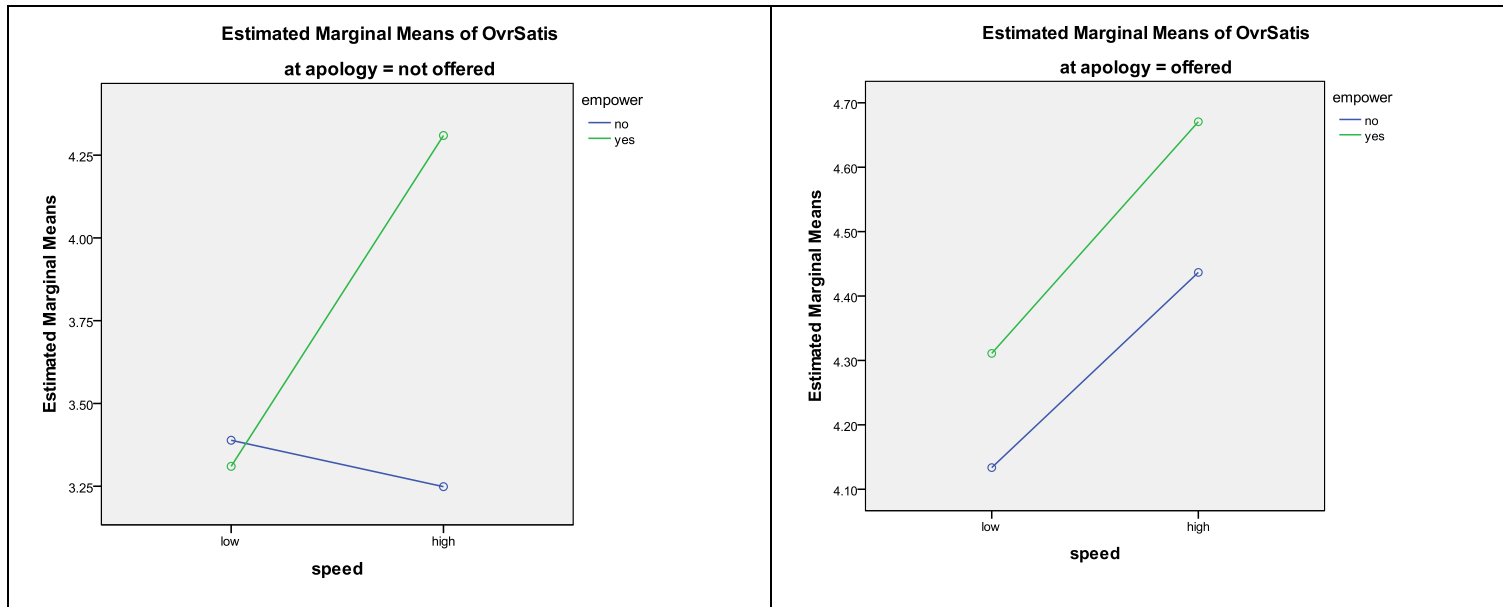


Figure 3: Graphs showing interaction effect of empowerment and speed with speed (overall failure)



APPENDIX H: KEY TO ABBREVIATIONS

ANOVA	Analysis of variance
CompMotive	Complaint motive
d.f.	Degrees of freedom
EnhLoyalty	Enhanced loyalty
ExpUpdate	Expectation update
F-value	Value of F-distribution
MANOVA	Multivariate analysis of variance
OverallSatis	Overall satisfaction
p<	Probability
RECOVER	Acronym for seven consumer outcomes
RepInt	Repurchase intent
Sig.	Level of significant
SwitchInt	Switching intent
t-value	Student's t-statistics
WoM	Word of mouth
α	Coefficient of alpha
λ	Wilks' lambda

AAAAAAAAA