

**AN EMPIRICAL INVESTIGATION OF THE EFFECTS OF
EMPATHY OF APOLOGY AND
MONETARY COMPENSATION ON
CUSTOMERS' REVENGE DESIRES AFTER DOUBLE
DEVIATIONS**

by

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ABSTRACT

This study examines the effect of empathy of the apology and monetary overcompensation on customers' revenge desires following double deviations. Double deviations can be defined as situations in which firms fail to recover from service failure. Two research questions that guide the current research are (1) how does the level of empathy of the apology impact on consumers' revenge desires after double deviation? and (2) how does the combination of the level of empathy of apology and the amount of monetary compensation impact on customers' revenge desires after double deviation?

A logical empiricist philosophical perspective informed the research design, which comprised an explanatory, multi-study approach. The study includes two scenario-based experiments and one behavioural experiment to examine the relationship between the double deviation recovery strategy and customers' revenge desires. Study 1 focuses on customer responses to different levels of empathy of apology and monetary overcompensation, by measuring customers' self-reported anger and revenge desires. Study 2 focuses on customer responses to different levels of empathy of apology under different conditions of failure intentionality and assesses alternative mediators of different types of inferred intentions of the manager. Study 3 examines the extent to which empathy of apology and monetary overcompensation impact on customers' revenge behaviours, as well as exploring the relationships in a different failure context.

Over the course of the project, four different types of motivational mediators were considered: the inferred selfish intentions of the manager, the inferred manipulative intentions of the manager, the inferred benevolent intentions of the

manager and the inferred selfish intentions of the firm. The two scenario-based experiments were conducted online and in the context of a hotel booking failure. The behavioural experiment was again conducted online but in the context of an online wine retailer prize draw failure.

The findings provide empirical support for a conceptual model of service recovery from double deviation. The study shows that the effect of empathy of apology on revenge desires is mediated by the inferred selfish and manipulative intentions of the manager during service recovery from double deviation. In contrast, monetary overcompensation appears to be ineffective when the utilitarian needs of the customer are met following double deviation. Moreover, the intentionality of the failure does not appear to reduce the effect of empathy of apology on customers' revenge desires. However, the empathy of the apology appears to be a less effective recovery tactic when the firm instigates a utilitarian failure.

The current research provides three contributions to the service recovery literature. First, the study extends the attribution-based theory of service recovery from double deviation by demonstrating that empathy of apology can be utilised to alleviate customers' revenge desires. Second, customers' inferences of managerial intent mediate the effects of empathetic apologies on revenge desires, thereby playing a pivotal role in double deviation recovery. Third, the current study advances conceptual understanding of the nature of the inferred intentions that drive revenge desires, by highlighting that the negative inferred intentions appear to mediate the model of the effects of empathetic apologies. The research presents implications for practitioners and policy makers concerning how to improve service recovery outcomes.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This thesis focuses on how to improve organisational responses following multiple service failures. A study of UK consumers indicates that while the number of customers experiencing a problem with the quality of goods or services has increased by 9.9% from 2021 to 2023, the average satisfaction with complaint handling has reduced slightly from 6.5 to 6.3 on rating scale ranging from 1-10 UK (The Institute of Customer Service, 2023). Moreover, many firms appear to fail to resolve complaints without third party intervention, as the Ombudsman Services in the UK reported over 140,000 consumer complaints in 2020 (Ombudsman Services, 2022). This indicates that while service failure may be proliferating, recovery remains a challenge for firms. Indeed, the 2020 Customer Rage Study conducted in the US indicates that nearly two thirds of customers report experiencing customer rage and that 58% of customers believe that they receive nothing in response to their complaints (Customer Care Management and Consulting, 2022). These statistics indicate that despite convincing theoretical arguments and anecdotal evidence that service recovery is a profitable art (Hart et al., 1990), many firms appear to be falling short of mastering the art.

Double deviations can be defined as the failure to restore service (Basso and Pizzutti, 2016) or provide a satisfactory recovery following a service failure (Joireman et al., 2013). Double deviations appear to be linked to important and harmful consequences for firms (Grégoire et al., 2009, 2010), as studies indicate that customers readily engage in harmful behaviours such as complaining in order to waste service employees' time and sharing their negative experiences with large volumes of customers (Grégoire et al., 2018). Therefore, literature reviews highlight the

importance of developing conceptual models of how to recover from a double deviation (Van Vaerenbergh et al., 2019).

Studies indicate that improving the management of service failure and recovery should remain a priority for service organisations, as a substantial portion of customers perceive service experiences to fail to meet their expectations. For example, the UK Customer Satisfaction Index (2023) indicates that 16.5% of UK consumers experienced a problem in 2023, compared with 13.6% in 2020 (The Institute of Customer Service, 2023). Moreover, the study indicates that the friendliness and helpfulness of staff ranks as the most important aspect customers want firms to improve over the next 2 years. Therefore, firms appear to fail to meet customer expectations, while interactional treatment remains a high priority for customers.

One form of interactional treatment that appears to be effective following double deviations is the provision of an apology (Basso and Pizzutti, 2016). Apologies appear to be effective in not only restoring customer satisfaction and repatronage (Lastner et al., 2016), but also in improving customer perceptions of why the firm embarks on the recovery. Studies also indicate that the influence of apologies may extend beyond the mere presence or absence of apologies to the way in which apologies are provided (Roschk and Kaiser, 2013; Antonetti and Baghi, 2022). Even though cross-disciplinary literature reviews call for prescriptions concerning how to apologise (Khamitov et al., 2020), few studies consider the effects of the way the apology is provided. Therefore, this thesis explores whether the extent of empathy conveyed in the apology can influence customers' revenge desires after double deviations.

Arguably, research into recovery tactic efficacy is of practical relevance, as this can aid marketing managers in the justification of further budget allocation to the

service recovery function (Albrecht et al., 2019). Therefore, researchers appear to devote increasing attention to understanding the implications of recovery tactics. A large portion of the service recovery literature focuses on understanding the extent to which firms should provide each recovery tactic and the combinations of tactics that should be provided. However, a large emphasis appears to be placed on monetary compensation (Noone and Lee, 2011; Gelbrich et al., 2015) and the time taken to conduct service recovery (Hogreve et al., 2017). In contrast, few studies document the effects of the content of apologies (Roschk and Kaiser, 2013), while few marketing studies consider the role of empathy in interactions between customers and frontline employees (Radu et al., 2019). In consideration of this, this thesis aims to add to the understanding of the effects of empathetic apologies. Therefore, studies into the effects of recovery tactics and studies concerning the restorative function of apologies in trusting relationships will be synthesised to develop a conceptual model of service recovery from double deviation. In this thesis, empathy is considered to encompass three components labelled by De Waal (2008) as emotional contagion, sympathetic concern and empathic perspective-taking, which will be further explicated in Chapter 3.

In this thesis, a review of the service recovery literature will be conducted, which will provide evidence that many models of service recovery indicate that the extent to which the customer blames the firm plays a central role in service recovery (Folkes et al., 1987; Grewal et al., 2008). However, integrating the findings of double deviation and psychological studies, the review will highlight that customers' responses may also be influenced by the perception of why an individual engages in a particular behaviour (Crossley, 2009; Reeder, 2009; Joireman et al., 2013). Marketing studies indicate that

the inferred motives for price increases (Campbell, 1999) and interpersonal communications (Antonetti et al., 2018) can play a key role in driving customer responses. Therefore, as the literature review will highlight in chapters 3 and 4, service recovery researchers emphasise the importance of integrating customer perceptions of managers' motives into models of customers' post-recovery responses (Lastner et al., 2016). This indicates that there is a need for conceptual models of recovery to incorporate how firms can influence customers' inferences of motive (Balaji et al., 2018). Therefore, this research will explore how customers' motivational inferences may be influenced by the way in which apologies are presented.

This chapter will provide a summary of the research topic and an outline of the constituent parts of this study. Section 1.2 provides a brief introduction to the area of literature in which this research is situated and provides a description of the rationale for conducting the study. This is followed by the discussion of the research questions and aims in Section 1.3. The structure of the thesis is presented in Section 1.4.

1.2 Research Background and Study Rationale

Over the past thirty years, service failure and recovery research has developed into a mature subfield of service research, which is widely cited in marketing and management literatures (e.g., Smith et al., 2009; Rasouljan et al., 2017; Grégoire and Mattila, 2021). Researchers devote considerable attention to constructing models that utilise justice-based, attribution-based and disconfirmation-based mechanisms to explain the relative effects of different actions taken by firms on consumer behaviour (Smith et al., 1999). Empirical studies aim to provide practically relevant guidelines for the amount (Gelbrich et al., 2016) and type (Sinha and Lu, 2019; Nazifi et al., 2021b)

of compensation to provide following service failure. However, as the introduction highlighted, industry surveys indicate that swathes of companies frequently fail in terms of fostering customer satisfaction and providing satisfactory recoveries for service failures. Indeed, a survey conducted in the US indicates that over 50% of complainants believe that they receive nothing when they complain (Customer Care Management and Consulting, 2022).

Studies of complaints to third party websites indicate that complaints are more likely to reach third parties following multiple episodes of failed recovery (Grégoire et al., 2010), while instances of customer rage appear to be more likely following multiple failed recoveries (Surachartkumtonkun et al., 2013). Moreover, customers who engage third parties in complaint disputes often exhibit more intensely negative emotional and behavioural responses, which can linger following the failure experience (Grégoire et al., 2009). This may be a major concern for firms, as dysfunctional behaviour appears to impact on employees' emotional states and interactions with other customers (Yue et al., 2022). Equally, the failure to recover may lead to viral negative publicity (Herhausen et al., 2019). However, researchers note a scarcity of research into methods to mitigate the effects of failed recovery attempts (Basso and Pizzutti, 2016). Against this backdrop, the focus of this research concerns how to leverage psychological and utilitarian resources to mitigate the effects of double deviations on customer cognitions, emotions and behaviours.

Throughout the third chapter of this thesis, the service recovery literature will be integrated to gain an understanding of which tactics appear to be more clearly understood. Service failure and recovery researchers present a myriad of recovery tactics, which confer utilitarian benefits and/or psychological benefits to the customer

(Cambra-Fiero et al., 2015a). Customers appear to display divergent responses to utilitarian benefits (e.g., money), depending on how they are presented to customers (Roschk and Gelbrich, 2014, 2017; Sinha and Lu, 2019). However, studies of psychological benefits (e.g., apologies) often focus on the presence or absence of the tactic, leading some studies to indicate that apologies are ineffective in the absence of utilitarian tactics (Goodwin and Ross, 1990; McCullough et al., 2000), while others contradict these findings (Wei et al., 2020). This points to a need for a study that directly addresses the optimal combinations of utilitarian and psychological approaches to recover from failure (Antonetti and Baghi, 2022). Therefore, this study will further explore whether customers believe that ‘talk is cheap’ in service recovery.

As will be explained in the review of psychological recovery tactics (Section 3.4), researchers of empathy claim that empathy of apology can be considered to reduce the imbalance in welfare amongst the firm and the customer (Radu et al., 2019). This line of research suggests that apologies that convey that the firm experiences a loss can be highly effective (Antonetti and Baghi, 2022). However, few studies consider how empathetic apologies can change customer perceptions of why firms conduct service recovery, despite empirical evidence that apology dimensions can influence customers’ motivational inferences (Antonetti et al., 2018). Therefore, the literature review will conclude that the implications of apology dimensions appear to be under-explored in the service recovery context. Considering this, the role of empathy of the apology in recovering from double deviations will be explored, as well as the interplay between utilitarian and psychological resources in recovering from double deviations.

1.3 Research Questions and Aims

The focus of this research is to clarify how firms can recover after double deviation and to elucidate the underlying mechanisms of the effects of recovery strategies following double deviations. Throughout the literature review, the findings of previous studies into the effects of tactics in different phases of the service recovery journey will be integrated in order to provide insight into the tactics that require further study. Two research questions, which are presented on page 110, emanate from the literature review. The questions and associated aims are provided below:

Research Question 1: How does the level of empathy of the apology impact on revenge desires after double deviation?

Research Question 2: How does the combination of the level of empathy of apology and the amount of monetary compensation impact on customers' revenge desires after double deviation?

The following aims were developed to respond to the first research question:

Develop a conceptual model linking empathy of the organisational apology to customer revenge desires.

Empirically examine the effects of empathetic apologies on inferred motives, emotions and behavioural intentions.

The following aims were developed to respond to the second research question:

To test the empirical model of the effects of empathetic apologies under varying conditions of monetary compensation.

To explore the potential interactions between empathy of apology and monetary compensation.

To compare the mediating mechanisms of empathy of apology and monetary compensation.

This thesis will provide three key theoretical contributions. First, this study will extend attribution theory in service recovery by elucidating the role played by empathy of apology in driving customers' attributional inferences. Second, this research will provide conceptual clarification of attributions of intent, as the studies will highlight which forms of intent appear to drive revenge desires following double deviations. This research will indicate that the inferred selfish and manipulative intentions of the manager for service recovery from double deviation drive customers' revenge desires, whereas the inferred benevolent intentions do not appear to drive revenge desires. Third, this research will extend the matching hypothesis to explain customer responses to combinations of empathy and monetary compensation in the post-recovery phase. The findings will indicate that once customers' utilitarian needs have been met in double deviation recovery, empathy of apology may be a more effective recovery strategy than the provision of additional monetary compensation.

1.4 Thesis Structure

This thesis contains ten chapters, the contents of which will be summarised in this section. Chapter 1 introduces the research topic, explains the rationale for the empirical investigation and clarifies the research questions. Chapters 2, 3 and 4 present the literature review from which a conceptual model is derived. The literature review is divided into three chapters, each of which corresponds to a different phase

of the service recovery journey (Van Vaerenbergh et al., 2019), including: service failure and pre-recovery, service recovery and post-recovery. This literature review is structured in this way for four reasons. Service recovery researchers contend that service failure and recovery can be conceptualised as two distinct events, which can affect customers' emotional states (Maxham and Netemeyer, 2002a; Ozgen and Kurt, 2012). Evidence suggests that customers display distinct cognitive and emotional responses to each service recovery attempt (Strizhakova et al., 2012; Surachartkumtonkun et al., 2015). Moreover, researchers of related concepts such as brand transgressions and product harm crises allude to a three-phase process (Khamitov et al., 2020).

Van Vaerenbergh et al. (2019, p. 2) provide definitions of the pre-recovery and recovery phases. The pre-recovery phase of the recovery journey can be considered to commence when the firm or customer becomes aware of the failure, and end with the initiation of a customer-firm interaction to resolve the problem. The recovery phase can be defined as commencing with the initial interaction between the firm and the customer to resolve the problem. This phase can be considered to end when the customer's attitudes are restored to their pre-failure state or when the customer ends their pursuit of service recovery. The post-recovery phase can be defined as the phase after the initial recovery effort, during which customers evaluate the service recovery and follow-up activities may occur (Khamitov et al., 2020). This reflects customers' retrospective accounts of service recovery, which mention follow-up activities (Tax et al., 1998). Nevertheless, firms' recovery efforts may occur before, during or after service failure (Miller et al., 2000) and customers may evaluate recoveries during or after the service failure. Thus, service recovery journeys may be recursive, and

customers do not necessarily progress through the three phases sequentially. Notwithstanding these limitations, this conceptualisation appears to reflect operationalisations of service recovery (Smith et al., 1999) and customers' retrospective descriptions of dissatisfying experiences (Bitner et al., 1990). In what follows, a summary of the content of each of the following chapters (chapters 2-10) of the thesis will be provided.

In Chapter 2, definitions of service failure are integrated to gain a deeper understanding of what constitutes service failure. This leads into a summary of the extant service failure typologies, to identify a failure context for this research. The commonly applied theories to explain customer responses to service failure are discussed and taxonomies of post-failure responses are reviewed. This clarifies the nature of the problem that service recovery seeks to address.

Chapter 3 addresses the identified and empirically tested recovery tactics within the service recovery literature and summarises the boundary conditions of service recovery tactics. The synthesis of the literature into recovery tactics will clarify differences in the research attention devoted to each recovery tactic and highlight that fewer studies consider the interplay between recovery tactics. This leads into Chapter 4, which reviews research into service recovery strategies for the post-recovery phase and discusses the sequence of customer responses to service recovery. In this chapter, customer revenge emerges as a particularly costly consequence for firms (Grégoire et al., 2018), which underscores the need for research into the mitigation of revenge behaviours. Moreover, chapter 4 indicates that there is a dearth of research into the post-recovery interactions and that this constitutes a promising area of service recovery research. The literature review culminates in the development of a model that

draws together insights from service failure, recovery and post-recovery studies to contextualise the concepts that are explored in the empirical studies.

Chapter 5 presents the conceptual model that is tested in the empirical phase of the research and incorporates relevant service recovery literature to support each of the underlying hypotheses. Chapter 6 presents the research methodology utilised to address the research questions and test the conceptual model. This chapter includes a discussion of the philosophical standpoint of the research, which informs the selection of the chosen methodological approach. Following this, multiple research design decisions are discussed, by comparing alternative approaches and the rationale for the chosen approach. The research design is then described in detail, by explaining each study and the constituent stimuli and measures. In Chapter 7, the results of the assessment of reliability and convergent and discriminant validity of the measures are discussed. A detailed account of the methods of analysis will enable the findings to be critically evaluated and compared with other empirical studies involving the same concepts.

Chapter 8 addresses each research hypothesis in turn, by utilising a series of ANCOVA and PROCESS analyses (Hayes, 2018) to establish whether the empirical evidence supports the hypotheses. Chapter 8 also discusses the research findings against the backdrop of prior literature to further understanding of customer responses to service recovery from double deviation. Chapter 9 concludes with a summary of the main contributions of the research to the service recovery literature and their implications for theory, policy and practice. The limitations of the study are highlighted as well as potential avenues for future research.

**CHAPTER 2: LITERATURE REVIEW: SERVICE FAILURE
AND THE PRE-RECOVERY PHASE**

2.1 Introduction

Empirical studies indicate that service failure can lead to changes in customer satisfaction (Smith et al., 1999), complaining intentions (Folkes et al., 1987), patronage intentions and WOM intentions (Singh, 1990; Maxham, 2001). Moreover, WOM may lead to changes in customer sentiment, media coverage and business outcomes (Hewett et al., 2016). Therefore, service recovery researchers place an emphasis on the development of definitions and categorisations of failure types, as well as theories of the consequences of service failures, which will be addressed in this chapter. This chapter includes four sections. Section 2.2 discusses the definitions and dimensions of service failure. This clarifies the failure context investigated in the empirical studies. This will lead into Section 2.3, which introduces three commonly adopted theories of customers' post-failure responses: attribution theory, justice theory and cognitive appraisal theory. The three theories that are discussed in Section 2.3 will provide an overview of the theories that are commonly applied to understand service failure and recovery. This will aid the interpretation of empirical findings concerning the effects of failure characteristics and recovery tactics. Subsequently, the extant taxonomies of complaining behaviour are identified in Section 2.4 to contextualise the subset of customer responses that are relevant to the empirical investigation. Penultimately, the antecedents of complaining behaviours are discussed in Section 2.5 to elucidate the factors influencing customers' pursuit of service recovery. Finally, the chapter closes with concluding remarks in Section 2.6.

2.2 Service Failure

The investigation of strategies to mitigate the effects of double deviations requires a definition of service failure, as this will develop clear conceptual boundaries, which enable service failure to be operationalised. Therefore, this section aims to clarify the definition of service failure. A plethora of service failure definitions will be discussed, before selecting a definition for the current research. Following this, researchers' service failure classifications and dimensions will be summarised. This is necessary, because service and product failure research indicate that customer perceptions of the extent and type of failure guide customers' recovery expectations (Richins, 1983b; Hess et al., 2003). Moreover, service failure may be inevitable due to the inseparability of production and consumption and extensive human involvement in services (Hart et al., 1990; Duffy et al., 2006), which indicates that the management of service failures may be a recurrent management challenge. Therefore, understanding the nature of service failures may aid the development of appropriate recovery strategies.

2.2.1 Defining Service Failure

A multitude of service failure definitions are provided by service recovery researchers. Therefore, a variety of perspectives will be incorporated before presenting an adapted definition of service failure, which will guide the methodological approach to the study of service failures in this thesis. Bearden and Teel (1983) note that dissatisfied customers may choose not to complain to the firm. Studies also indicate that customers may complain in a fraudulent (Harris, 2010) or humorous manner (McGraw et al., 2015). Fraudulent complaints may not be representative of customer dissatisfaction, whereas humorous complaints may be driven by a variety of motives (e.g., warning

others, galvanising others, connecting with others or entertaining others, Shin and Larson, 2020). Therefore, complaint information may not capture dissatisfaction completely and may include other information that is not germane to dissatisfaction. Service failure researchers often define service failure utilising the disconfirmation paradigm, which is frequently adopted in theories of customer dissatisfaction (Churchill and Suprenant, 1982). Oliver (1996) describes the disconfirmation paradigm as the notion that customers form prior expectations (or reference levels) regarding service experiences. Through service experiences, expectations can be negatively disconfirmed, confirmed or positively disconfirmed. Churchill and Suprenant (1982) define negative disconfirmation as when a product performance falls below customer expectations, positive disconfirmation as when expectations are exceeded and confirmation as when performance matches expectations. Consistent with this perspective, one approach considers service failure as when service performance falls below the expectations of the customer or the adequate level of performance (Bell and Zemke, 1987; Zeithaml et al., 1993; Sivakumar et al., 2014). Indeed, service failure can be defined as a “*service performance that falls below a customer’s expectations*” (Hess et al., 2007, p.80), which might be captured by measuring customers’ expectations, followed by customers’ perceptions of performance (e.g., Hess et al., 2003).

However, varied expectations, tastes and personality factors may lead the same service experience to yield a variety of satisfaction ratings (Day and Landon, 1976; Oliver, 1980). Indeed, satisfaction may be informed by both desirable and likely expectations (Oliver and Bearden, 1985). Equally, failures may occur without the customer’s awareness (Day and Landon, 1976). Therefore, Gijzenberg et al. (2015)

appear to consider service failures as drops in the firm's performance relative to its service promise (p. 643). However, the service promise is operationalised through subjective, organisational perceptions, which cannot be considered to consistently identify all failure instances. Based on these definitions, service failures can be considered as when perceived service performance falls below customer expectations (Hess et al., 2003) and/or firms' service specifications. The discussion of definitions of service failure in the literature has clarified the nature of service failure, in that service failure emerges as a highly subjective and perceptual variable. Despite the subjective nature of service failure, common features of failures can be utilised to classify and sort failures. Service recovery studies indicate that by organising failures into groups with similar characteristics, the consequences of service failures can be managed. Therefore, Section 2.2.2 discusses categorisations and dimensions of failure that have been used in previous studies to identify patterns in consumer cognitive, emotional and behavioural reactions to failure, as well as identify contingencies for the implementation of different forms of recovery strategies.

2.2.2 Service Failure Dimensions and Categorisations

A variety of service failure dimensions and categorisations can be found in the service failure and recovery literature. For example, multiple studies incorporate a distinction between high and low severity failures (e.g., Worsfold et al., 2007; Hess, 2008). Severity appears to be considered as the dimension of intensity of the problem (Maxham and Netemeyer, 2002a; Weun et al., 2004). Service recovery researchers usually manipulate severity by changing the extent of the firm's misconduct (e.g., Hess et al., 2003). However, other studies consider service failure to reflect the severity of

consequence. For example, Keiningham et al. (2014) contend that incidents of injury or death represent objectively severe failures. Overall, failure severity may be conceptualised as a dimension which varies along a continuum (Smith and Bolton, 1998, 2002).

While differences may exist in customer perceptions of the level of severity of failure, there appear to also be unambiguous differentiations on which large groups of customers can agree. In a different approach, critical incident (CIT) studies provide classifications of sources of satisfaction and dissatisfaction in services (Bitner et al., 1990, 1994), which have been extended to develop context-specific typologies (e.g., Kelley et al., 1993; Meuter et al., 2000; Holloway and Beatty, 2003). These categorisations consider certain parts of the service experience to represent critical moments, in which firms can differentiate themselves in terms of service excellence, or severely dissatisfy customers. Such approaches can be deemed to provide typologies, which organise failures into groups with shared characteristics. Here, the term typology is considered to represent service recovery researchers' classification of failures into types based on theoretically determined qualities. This definition is drawn from Rich (1992, p. 761), who considers typologies to be distinct from taxonomies, the latter of which concern classification systems that are empirically derived, by dividing phenomena into groups based on elementary similarities and then hierarchically nesting phenomena into broad categories.

A subset of service recovery researchers acknowledge a difference between outcome and process failures (Keaveney, 1995), which may be associated with diverse recovery preferences (Zhu et al., 2004). Smith et al. (1999) contend that outcome and process failures pertain, respectively, to losses of utilitarian (e.g., money and time) and

symbolic (e.g., status) resources (Bagozzi, 1975). Rooted in resource exchange theory (Foa and Foa, 1974), Roschk and Gelbrich (2014) forward four service failure categories, including: monetary failure, flawed goods, failed service and lack of attention. Each failure corresponds to a different type of resource loss: money, goods, services or status. Arguably, multiple types of failure (e.g., service delays, rude interactional treatment) can be attributed to each category. However, service failure researchers might diverge in their opinion as to the category in which to place failures that imply multiple forms of loss. Indeed, Cambra-Fierro et al. (2015a) contend that failures can include combinations of financial and psychological loss, depending on the monetary cost of the failure and the strength of the customer-firm relationship. Despite this, comparatively little research studies how recoveries can be used to respond to combinations of losses (Cambra-Fierro et al., 2015b).

A common theme emerging from the research into failure typologies is that the appropriate service recovery strategy appears to be contingent on the tangible or psychological losses caused by service failure. This implies that recovery strategies may need to match customer perceptions of the dominant loss caused by service failure. Given that failures can entail multiple types of loss, this raises the question of how to effectively offer combinations of financial and psychological resources after service failures. This issue will be considered in detail in Chapter 3. The next section turns to providing a summary of the commonly adopted theories to conceptualise the process of customer responses to service failures. This will pave the way for the discussion of the effects of service recovery tactics in Chapter 3, as many recovery tactics are considered to be effective due to their ability to intercede in and alter customers' emotional and psychological responses to failure.

2.3 Key Theories of Customers' Post-Failure Responses

Researchers have applied multiple theories to explain customer responses to service failure and recovery, including exit, voice and loyalty theory (Hirschman, 1970), the expectancy disconfirmation paradigm (Churchill and Suprenant, 1982), resource exchange theory (Foa and Foa, 1974), conservation of resources theory (Hobfoll, 1989), emotional attachment theory (Bowlby, 1979), deonance theory (Folger, 2001) and belief in a just world theory (Lerner, 1965). However, this section focuses on three theories. The three main reasons for the selection of the theories are presented in this section and further reasons emerge during the literature review.

First, these theories are amongst the most frequently cited in service recovery studies (Hess et al., 2003) and appear to be particularly predictive of customers' tendencies towards revenge (Gelbrich, 2010). Second, prior research indicates that customers' recovery tactic preferences can be explained in terms of the extent to which the tactics fulfil customers' justice needs and the extent to which the recovery tactics are appropriate to the characteristics of the failure (Folkes et al., 1984; Smith et al., 1999). Third, these theories appear to be compatible and to explain different aspects of service recovery. Therefore, the three theories on which this section focuses are attribution theory (Heider, 1958), justice theory (Bies, 1987) and cognitive appraisal theory (Lazarus, 1991).

Justice theory appears to explain how tactics instil different types of resources that benefit the customer in different ways. Attribution theory highlights the interdependency of failure and recovery, thereby providing a bridge between failure and recovery. Cognitive appraisal theory provides an explanation of why both justice perceptions and attributional inferences may appear in failure and recovery situations.

Attribution theory is introduced first, because this theory is frequently adopted to explain customer responses to service failures. Then, justice theory is presented, because justice theory is usually applied to understand customers' responses to service recovery. Finally, cognitive appraisal theory is introduced as a means of integrating the two theories.

2.3.1 Attribution Theory

This section presents an overview of how attributional theory has been used to explain customer responses to service failures. First, the causal dimensions are defined, before discussing their effect on customer responses. Attributions can be defined as customer perceptions of the causes underlying events (Bitner, 1990, p.70). Attributions may be useful because they can aid individuals' understanding of the environment (White, 1959) and can guide individuals' perceptions, emotions and behaviour (Kelley, 1971, 1973). Consistent with this, psychology studies indicate that the experience of failure triggers attribution search (Weiner, 1985). Therefore, customers appear readily to infer the causes for service failure (Heidenreich et al., 2015; Rummelhagen and Benkenstein, 2017) and often blame the firm (Folkes and Kotsos, 1986). Accordingly, dissatisfying purchases appear to encourage causal inferences (Weiner, 2000) and lead causal inferences to be more indicative of behaviour (Meuter et al., 2000).

Weiner's (1980) attribution model has been applied by service failure researchers to explain service failure responses (e.g., Hess, 2008; Gelbrich, 2010; Heidenreich et al., 2015). Arguably the main three dimensions of Weiner's model include locus, controllability and stability. First, locus can be described as where the failure is perceived to occur (Folkes, 1984, p.399). Second, stability can be viewed as

the perception of the likelihood of recurrence of the failure (Hess et al., 2003). Third, controllability can be considered as the extent to which a failure is under the volitional control of an individual or organisation (Swanson and Kelley, 2001b). In addition, Abramson et al. (1978) forward globality attributions, which can be considered as the extent to which failures can be generalised across different contexts (Huang, 2008).

Folkes et al. (1984) provide evidence that locus, controllability and stability attributions enhance anger, recovery expectations and desires to harm the business. Specifically, locus and controllability attributions may raise customers' perceptions that they deserve a recovery, whereas higher perceptions of stability may encourage customers to prefer a refund rather than a replacement (Folkes et al., 1984; Folkes, 1988). In a similar way, controllability and stability attributions appear to encourage complaining intentions (Folkes et al., 1987), reduce repatronage intentions (Richins, 1987; Blodgett et al., 1993; Pick et al., 2016) and encourage NWOM (Blodgett et al., 1995). Furthermore, Van Vaerenbergh et al. (2013) find that controllability attributions can even influence the post-recovery responses of customers who observe a customer complaint. Moreover, a meta-analysis of 45 studies indicates that controllability and stability attributions impact on transaction-specific satisfaction and negative emotions, while the study supports a direct association between stability attributions and overall satisfaction (Van Vaerenbergh et al., 2014).

Previous findings indicate that customers' responses to service failure and recovery correspond with their perceptions of the failure causes (Hess et al., 2003). However, studies of customers' globality attributions (Huang, 2008) and perceptions of the motives underlying service failures appear to be rare (Crisafulli and Singh, 2016). A study concerned with the effects of globality attributions indicate that the perception

that a service failure is an organisation-wide issue intensifies negative evaluations (Hess et al., 2007). Conversely, when the failure is caused by another customer, attributions of globality may yield more favourable evaluations of satisfaction, negative WOM and repatronage (Huang, 2011). Social psychology researchers also extend the theory of attribution to incorporate individuals' perceptions of why individuals cause events (Reeder et al., 2005; Reeder, 2009). Consistent with this perspective, studies within and outside of the service recovery literature indicate that individuals' fairness perceptions, emotions and behavioural intentions can be influenced by perceptions of others' motives (Campbell, 1999; Crossley, 2009; Grégoire et al., 2010). This indicates that individuals' responses to dissatisfying experiences may be shaped by the inferred mental state of others. This has led researchers of customers' responses to highly controllable failures to call for more research into the role played by inferences of motives in post-failure evaluations (Joireman et al., 2013).

2.3.2 Justice Theory

Social psychological research applies justice theory to explain individuals' perceptions of the fairness of exchanges and conflict resolutions (Homans, 1961). Smith et al. (1999) conceptualise service recovery scenarios as firms' efforts to recompense the losses incurred due to service failure. Equally, Michel et al. (2009) contend that service failures represent cases of unfair treatment, which indicates that service recovery can be viewed as a form of conflict resolution. Consequently, service recovery researchers apply justice theory to understand customer responses to service recovery (Wirtz and Mattila, 2004). Therefore, multiple reviews of the literature indicate that the perceived justice framework may be the dominant framework of service recovery satisfaction

antecedents (e.g., Orsingher et al., 2010; Van Vaerenbergh and Orsingher, 2016). This section introduces justice theory and defines the dimensions of justice. The variables associated with justice perceptions will be discussed in more detail in Chapter 3.

Smith et al. (1999) contend that justice theory is rooted in equity theory (Homans, 1961; Adams 1965). According to Greenberg (1990), equity theory predicts that individuals compare the ratio of their outputs and inputs with that of a “comparison other”. In a similar vein, Austin and Walster (1974, p. 208) contend that individuals prefer to receive rewards which are perceived to be “*fair return for their social investments*”. Thus, social exchange theorists contend that equity perceptions influence the viability of relationships (e.g., Walster et al., 1973). In this manner, service recovery researchers often conceptualise recoveries as corrective actions that restore the justice of the exchange (Mattila, 2001). Therefore, service recovery efforts are thought to influence distributive, procedural and interactional justice perceptions (Migacz et al., 2018; Tsarenko et al., 2019).

First, distributive justice can be considered to reflect customer perceptions of the parity of inputs with complaint outcomes (McCollough et al., 2000). Second, procedural justice perceptions can be considered to reflect the evaluation of the fairness of the process through which the outcome is determined (Karande et al., 2007). Third, interactional justice can be described as the evaluation of the interpersonal treatment of the customer (Bies and Moag, 1986). Service recovery studies provide conflicting evidence of the relative influence of justice dimensions on customer responses (e.g., del Río-Lanza et al., 2009; Chang and Chang, 2010). However, this issue is beyond the focus of this literature review, as meta-analyses provide valuable clarifications of this matter (e.g., Orsingher et al., 2010; Gelbrich and

Roschk, 2011a) and studies of double deviations provide consistent support for the effects of tripartite justice perceptions on repatronage and customer revenge (Bechwati and Morrin, 2003; Grégoire et al., 2010). Instead, this thesis focuses on inferred motives, which have been explored in fewer studies and have been described as the “bottleneck” of customer responses to double deviations (Joireman et al., 2013, p.331).

2.3.3 Cognitive Appraisal Theory

Cognitive appraisal theory can be considered to claim that customers’ evaluation of events includes the consideration of the desirability of the outcomes and matters of agency (Nazifi et al., 2019). Lazarus (2006) presents cognitive appraisal theory as a means of explaining customers’ responses to stressful events. Such events are thought to trigger primary appraisals, secondary appraisals and coping behaviours. During primary appraisals, individuals can be considered to evaluate the goal congruence and relevance of the transgression (Lazarus, 1991), which may contribute to the stressfulness of the event (Stephens and Gwinner, 1998). Secondary appraisal can be considered to refer to the assessment of coping potential (Lazarus 2006), which incorporates causal attributions (Chebat et al., 2005). Thus, the experience of service failure may produce a plethora of internal questions regarding the cause of the failure and the likelihood of overcoming the failure (Roehm and Brady, 2007).

Previous research indicates that service failures represent experiences of injustice, in which customers perceive the violation of their needs (e.g., justice, Surachartkumtonkun et al., 2013, 2015). Therefore, Cai et al. (2018) describe primary appraisal as customers’ perception of the extent to which the event conforms to their fairness beliefs. This indicates that justice theory may be compatible with cognitive

appraisal theory. The perceived violation of security, justice and esteem needs also appears to lead to emotional responses (Schneider and Bowen, 1999), while cognitive appraisals appear to elicit diverse emotional responses (Nyer, 1997). Indeed, Zeelenberg and Pieters (2004, p. 446) note that *“one of the tenets of appraisal theory is that the cognitive appraisal of the situation is the ruling mechanism in both the elicitation and the differentiation of emotion”*.

Service recovery researchers also link customers' perceptions of their ability to cope with stressful events to cognitive appraisals and emotions (Roehm and Brady, 2007; Gelbrich, 2010). Coping responses can be categorised as problem-focussed coping or emotion-focussed coping (Lazarus and Folkman, 1984; Chebat et al., 2005; Bonifield and Cole, 2007), such that customers who believe they can change the outcome of a stressful event appear to be more likely to engage in problem-focussed coping (Folkman et al., 1986).

The preceding discussion indicates that attributions constitute highly salient evaluations, as customers appear to select coping behaviours in line with their attributions and emotions. Equally, justice perceptions appear to shape customers' evaluations of recovery. In light of this, a summary of research into customers' post-failure responses is provided in appendix 2.1. Cognitive appraisal theory forms the basis of the model, which focuses on how customers evaluate failure experiences. The model also incorporates multiple behavioural consequences of service failure, as well as moderators that have been identified in prior literature. These aspects will be discussed in the following sections to provide an overview of research into service failure and highlight the large volume of research into these topics.

In section 2.2, three commonly applied theories of service failure and recovery were introduced. A synthesis of the application of attribution theory to understand customers' post-failure emotions, behaviours and expectancies for recovery was provided. The review indicates that attribution theory highlights how customers integrate evaluations of why events occur to inform the predictability of future events. This indicates that attributions serve a functional role in understanding and responding to negative events. Justice theory was then introduced, as many service recovery studies apply justice theory as a means to understand how customers' evaluate recovery efforts. Within this perspective, customers appear to evaluate the outcomes, the ways in which the outcomes are achieved and the interpersonal treatment during the recovery process. The discussion then moved to cognitive appraisal theory, which has been utilised to integrate customers' evaluations of justice levels and the underlying reasons for failure into an evaluative process. Given that considerable attention has been drawn to mental and emotional processes that lead to post-failure and recovery behaviours, the next section elucidates the ways in which researchers classify different forms of behavioural response. This will contextualise the research project, which will focus on one of a subset of consumers' responses.

2.4 Consumers' Responses to Dissatisfaction

The previous section discussed commonly applied theories to explain customers' responses to service failure. Within theories of customer responses, often customer behaviour is depicted as the final stage in the response process. So far, this review has highlighted a subset of commonly researched behavioural responses: complaining, repatronage and WOM. However, studies of consumer dissatisfaction

note a much broader range of responses. This section provides a brief overview of existing taxonomies of responses to dissatisfaction, which contextualises complaining to the firm within a broader set of potential responses. This should provide a more comprehensive overview of the potential consequences of service failure for the firm, which differentiates between actions taken by customers that vary in visibility to the firm.

The literature has developed a wealth of categorisations of consumer complaining actions (Istanbulluoglu et al., 2017). Hirschman (1970) identifies three consumer responses to the decline of quality of goods or services: exit, voice and loyalty. Exit refers to the customer's choice to leave, voice represents a vocal complaint and loyalty denotes repatronage. Therefore, researchers distinguish between behavioural and non-behavioural responses to dissatisfaction, as customers may respond to the experience of dissatisfaction by doing nothing (Day et al., 1981). Accordingly, loyal customers may exhibit diverse attitudes towards the firm (Dick and Basu, 1994), desires to complain and abilities to complain (Andreasen, 1985).

Day and Landon (1977), in the first instance, classify complaining responses as either 'action' or 'no action'. Then, the responses are categorised as public or private actions, according to the extent to which the complaint can be seen by the firm. Complaining behaviour researchers often consider actions directed towards the firm or third-party organisations as public actions, whereas those directed towards friends and family can be deemed as private actions (Crie, 2003). In a different study, Singh (1988) categorises responses as voice, private or third-party actions. These categories correspond to the target of the complaint, including the organisation, friends and family or a third party, respectively. This study indicates that the no action response might be

considered as a voice response, because this response indicates customers' attitudes towards the firm.

Day et al. (1981) develop a list of 9 potential responses to dissatisfaction, which incorporates boycotting behaviours. This classification distinguishes between complaining actions with different objectives, including: to influence manufacturers and retailers, to influence regulatory bodies, to warn others or to express dissatisfaction. However, Klein et al. (2004) distinguish complaining behaviour from boycotting, arguing that, generally complaining behaviour can be understood as an individual, rather than a collective act. Also, research into online complaining indicates that although some public complaining behaviours can be motivated by a desire to protect others, not all complaining behaviours are motivated by a prosocial intent (Grégoire et al., 2019).

Rooted in cognitive appraisal theory, a subset of taxonomies of service failure responses distinguishes between different forms of coping. For example, Gelbrich (2010) contend that negative WOM and complaining to the firm may be utilised to solicit others' emotional support (i.e., support-seeking coping) or may constitute a retaliatory action (i.e., confrontative coping). In contrast, Istanbuluoglu et al. (2017) develop a taxonomy of behaviours, which acknowledges changes in the visibility of complaints due to social media. This taxonomy includes inertia, exit, NWOM, exit with NWOM, public complaining to the company, public complaining via third parties and exit with public complaining. This categorisation distinguishes responses first in terms of their visibility to the company, then in terms of their intended audience, the action or actions in which the customer engages. This categorisation utilises differentiation criteria in a

hierarchical fashion and acknowledges the possibility that response options can be combined (Crie, 2003).

Research into double deviations provides categorisations which reflect the motives of customers who experience high levels of anger or betrayal (Grégoire and Fisher, 2008). These categorisations can include demands for reparation, such as problem-solving complaining and third-party complaining for problem resolution (Joireman et al., 2013). Grégoire and Fisher (2008) consider problem-solving complaining to be directed towards the firm, whereas third-party complaining can include complaining to a third-party website (e.g., ConsumerAffairs.com). Gelbrich (2010) include problem-solving complaining as a form of support-seeking coping, as well as support-seeking NWOM, which involves seeking empathy or understanding from others. In contrast, customers may engage in confrontative coping (Gelbrich, 2010). This includes retaliatory or revenge behaviours (Bonifield and Cole, 2007), such as vindictive complaining, marketplace aggression (Grégoire et al., 2010), vindictive NWOM (Gelbrich, 2010) and third-party complaining for negative publicity (Grégoire and Fisher, 2008). These behaviours may be relevant to the current research, as evidence indicates that double deviations encourage revenge. Moreover, these behavioural responses also appear to be compatible with cognitive appraisal theory, as they reflect customers' perceptions of their coping potential (Bonifield and Cole, 2007).

Overall, prior research has provided a variety of methods for categorising customer responses to dissatisfaction, which differentiate between complaining audiences, motives and channels. The purpose of this section is not to contribute to the mature debate regarding how to classify dissatisfaction responses. Rather, this

section illustrates that complaining behaviour can incorporate a range of expressions of dissatisfaction and that the current research focuses on a subset of dissatisfied customers who complain directly to the firm. Focusing on customers who complain directly to the firm reflects real examples of double deviations, which usually involve a customer complaint (Grégoire et al., 2009).

Prior research has developed a wealth of knowledge concerning the antecedents of customers' inclination to complain (Crie, 2003), which will be summarised in the following section. In the next section, the factors influencing complaining behaviour are divided into customer characteristics, situational characteristics and organisational characteristics. These three categories were adopted because they reflect common debates that recur throughout the literature concerning aspects that promote and inhibit complaining behaviour. Moreover, frequently studies aim to control for one or more of these characteristics in experimental studies (e.g., Dewitt and Brady, 2003; Bolton and Mattila, 2015). Early studies on complaining behaviour elucidated how segmenting customers along demographic and psychological characteristics can enable service providers to predict responses to dissatisfaction. Equally, a further stream of literature developed, in which the characteristics of the failure context and situation were utilised to predict behaviour. More recent research integrates the context of the customer-firm relationship and customer perceptions of service quality and brand equity as moderating variables that can intercede in the customer response model to alter outcomes. Therefore, integrating these contributions into the literature review will aid the understanding of how variables that are not the focus of the study might influence the research findings.

2.5 Factors Influencing Complaining Behaviour

2.5.1 Customer Characteristics

Despite the recognition of dissatisfaction as the leading cause of complaining behaviour (Bearden and Teel, 1983), situational and personal factors also account for divergence in dissatisfaction responses (Day, 1984). Prior research on customer complaining behaviour links demographic characteristics to complaining to the firm or third parties, by demonstrating that complainers tend to be younger, highly educated and high earners (Warland et al., 1975; Bearden and Mason, 1984). Findings of the effect of race on complaining to the firm or third parties are mixed (see Baker et al., 2008; Jung et al., 2017). Moreover, some studies report complex interactions between macroeconomic factors (e.g., the state of the economy) and the effects of individuals' characteristics (e.g., income, Kumar et al., 2014).

Empirical studies provide evidence that individuals can be predisposed to complaining to the firm due to personality traits such as assertiveness (Richins, 1983a), consumer activism (Bolfing, 1989), attitude towards complaining (Blodgett et al., 1995; Nazifi et al., 2020), seeking redress propensity (Chebat et al., 2005), Machiavellianism (Bodey and Grace, 2007), impulsivity and involvement (Sharma et al., 2010). Conversely, compassion may suppress complaints (Stephens and Gwinner, 1998). Further factors which appear to influence post-failure evaluations and behavioural intentions include consumers' power perceptions (Sembada et al., 2016), power motivation (Wong et al., 2016), cultural orientation (Huang et al., 1996), religiosity (Newton et al., 2018) and political ideology (Jost et al., 2017; Jung et al., 2017).

Nevertheless, studies indicate that transaction-specific evaluations exert larger effects on voice than dispositional variables (Richins, 1983b; Blodgett et al., 1993; Sharma et al., 2010). Similarly, Grégoire and Fisher (2008) claim that transaction-specific variables exert a larger impact on demands for reparation and retaliatory behaviours than demographic variables. Furthermore, a meta-analysis conducted by Van Vaerenbergh et al. (2014) indicates that the effects of attributions extend across different cultural contexts. Equally, the effect of demographic variables and political orientation on complaining behaviour appear to be much smaller than the effect of the firm's recovery approach (Jung et al., 2017). Therefore, this discussion turns to the effects of situational variables on customer responses. This will be informative in terms of understanding how the nature of the failure and the environment in which the failure occurs can vastly influence complaining outcomes.

2.5.2 Situational Characteristics

Researchers devote considerable attention to the situational characteristics that affect complaining behaviours (Richins, 1983b, 1987). Research indicates that the higher the customer satisfaction with the service encounter, the lower the likelihood of customer complaints (Singh and Padya, 1991; Bearden and Teel, 1993). Researchers provide evidence that problem severity alters recovery preferences (Yang et al., 2022) and raises complaining to the firm, exit and NWOM (Shuptrine and Wenglorz, 1981; Richins, 1983b, 1987). Moreover, severity appears to influence repatronage intentions (Worsfold et al., 2007), loyalty (Wang et al., 2011) and trust (Weun et al., 2004), as well as customers' perceptions of betrayal and their subsequent complaining and revenge intentions (Nazifi et al., 2020). Therefore, severity appears to be relevant to both the

evaluation of recovery and relational consequences. Similar effects appear to occur for services which customers deem to be critical (Folkes et al., 1987; Webster and Sundaram, 1998). Gelbrich et al. (2015) extend these findings by introducing concepts of the substitutability of the service, the duration of the service and the extent of inconveniences caused by the failure. More recently, Nazifi et al. (2021c) provide empirical support for the incorporation of failure reversibility and failure level (i.e., the extent to which the failure is systematic within the organisation) as moderators of recovery approaches. Together, these studies support the notion that the severity of the failure increases customer perceptions of the loss due to service failure, thereby intensifying customers' negative behavioural responses.

Prior research also indicates that the characteristics of the industry context may add to customers' perceptions of the loss associated with complaining. Indeed, Hirschman (1970) argues that in industries with loose-monopoly conditions, customers may be less likely to voice complaints. Similarly, Singh (1990) finds that alternatives encourage voice. Voice actions also appear to be influenced by the broader evaluation of the worthwhileness of complaining (Hirschman, 1970; Singh, 1990), which can be considered to reflect an overall cost-benefit analysis of complaining. Researchers find evidence that higher levels of trouble involved in complaining reduce voice (Richins, 1987; Singh, 1990; Evanschitzky et al., 2011) and increase NWOM (Richins, 1983b; Voorhees et al., 2006). This reflects research which indicates that complaints may be encouraged by the quality of previous recoveries (Voorhees and Brady, 2005) or service guarantees (McQuilken and Robertson, 2011). Together these studies suggest that customers may be more inclined to complain to the firm when the costs of complaining are outweighed by the benefits of complaining (Singh, 1990).

Furthermore, studies suggest that a higher likelihood of complaint success increases the likelihood of complaining to the firm (Richins, 1983b, 1987; Velázquez et al., 2006) and reduces the likelihood of exit and NWOM (Richins, 1983b, 1987; Singh, 1990). Indeed, Blodgett et al. (1995) note that if customers think that the firm will provide a remedy, their likelihood of complaining to the firm increases. Together, previous studies provide support for a model of complaining antecedents, which focuses on the causality and severity of the failure, as well as the cost-benefit analysis of complaining. Having addressed the nature of the failure and the utilitarian considerations of the failure, the next section discusses the relational and perceptual context of the failure. Given that the failure does not take place in a vacuum, but often in the context of multiple interactions with the firm or its competitors, customer perceptions of previous encounters may shape the outcomes of the failure. This leads to a need to take into account how customer evaluations may be informed or biased by previous service experiences.

2.5.3 Organisational Characteristics

The brand equity perspective indicates that customers' positive past experiences with a firm enable the firm to accumulate goodwill, which limits the negative effect of poor service experiences (Tax et al., 1998). In contrast, the expectancy theory perspective maintains that higher expectations of service quality raise customers' sensitivity to poor service recoveries (Kelley and Davis, 1994). Previous studies indicate that perceptions of past performance quality are associated with increased transaction-specific satisfaction, repurchase intentions (Hess, 2008), overall satisfaction and PWOM (Choi and Mattila, 2008). In a similar vein, researchers provide evidence that higher prior

quality perceptions lead to lower stability and controllability (Vázquez-Casielles et al., 2007). Studies of brand equity also provide evidence that high brand equity perceptions lead to higher post-failure satisfaction evaluations (Brady et al., 2008), repatronage and PWOM intentions (Sengupta et al., 2015). However, these buffering effects appear to be bounded by the failure severity and the timing of the evaluation, as high equity brands appear to experience more buffering effects when the failure is severe and when the recovery occurs earlier (Roehm and Brady, 2007).

Similarly, a strong customer-service provider relationship may buffer firms against the effects of service failure on service recovery satisfaction (Hess et al., 2003), switching (Priluck, 2003) and NWOM intentions (Dewitt and Brady, 2003). Indeed, Grégoire and Fisher (2006) find that strong relationship customers may display lower retaliation intentions. Moreover, strong relationship customers appear to exhibit a stronger positive relationship between complaining and loyalty (Umashankar et al., 2017). However, there is considerable debate regarding the effect of relationships on complaining. One study indicates that a strong service provider relationship reduces complaints (Dewitt and Brady, 2003). Conversely, some studies indicate that customers with strong customer-firm relationships may be more inclined to complain (Mittal et al., 2008) and may be less deterred by complaint barriers (Evanschitzky et al., 2011). Therefore, a weak customer-firm relationship may reduce customers' ability to discount failure experiences against successful service experiences (Story et al., 2020).

Overall, research into the influence of service provider relationships appears to contradict the argument that service providers should seek to minimise the gap between expectations and perceptions (Parasuraman et al., 1988). The discussion of the moderators of service failure responses illustrates that service recovery research

has advanced understanding of the factors that influence customers' complaining behaviours. Appendix 2.2 provides a tabulated summary of extant research into the factors beyond the service failure experience that influence complaining behaviour. Despite the important role played by customer characteristics and prior perceptions, prior studies indicate that recovery tactics (Gelbrich et al., 2016), recovery performance, severity and controllability evaluations account for more variance in customers' post-recovery satisfaction than relational factors (Hess et al., 2003; Grégoire et al., 2009).

2.6 Concluding Remarks

This chapter began by clarifying the conceptual boundaries of the service failure concept to underpin the empirical investigation. This was followed by a synthesis of service failure typologies. From the review of service failure typologies, the extent of customers' resource losses emerged as a potential method for categorising failures and establishing recovery strategy contingencies. The review also concluded that customer responses to different combinations of resource losses have received less research attention than customer responses to specific forms of loss (e.g., money). Section 2.3 reviewed the literature into theories of post-failure responses. The review indicated that customers appear to evaluate the cause of the failure and form intentions and behaviours that are consistent with the nature of the cause (Folkes and Kotsos, 1986). The review also highlighted that more emphasis has been placed by previous research on failure causes, rather than firms' underlying motives for instigating failure.

In line with previous research, the synthesis of the literature into theories of post-failure responses indicated that cognitive appraisal theory might represent a means of

integrating attributions and justice perceptions within a customer response process (Surachartkumtonkun et al., 2015). This led into a discussion of the categorisations of dissatisfaction responses in Section 2.4, which provided a summary of studies that present approaches to classifying failure responses according to the visibility of the complaint to the firm, the audience of the complaint and the purpose of the complaint. Section 2.5 then reviewed the evidence that demographic, personality, cultural and religious factors influence customers' post-failure responses. Overall, the review of the factors influencing complaining behaviour indicated that the failure and recovery characteristics appear to influence post-failure evaluations and behaviours. Moreover, prior studies provide evidence that customers' psychological and demographic characteristics, as well as perceptions of the firm and the relational context of the encounter can moderate customer responses to the events that occur during and after the failure experience. The review of the literature into the factors influencing complaining behaviour guides the focus of the research on how firm actions can alter customer responses. Therefore, Chapter 3 will evaluate the literature concerning the recovery phase.

CHAPTER 3: LITERATURE REVIEW: THE RECOVERY PHASE

3.1 Introduction

This chapter aims to provide a synthesis of extant contributions concerning organisations' attempts to manage the consequences of service failures. Considerable attention will be drawn to the literature concerning organisational responses, which represent a large portion of the service recovery literature (Van Vaerenbergh and Orsingher, 2016). Moreover, service recovery studies indicate that complainants' satisfaction with the service recovery process exerts a large influence over repatronage intentions and WOM (Spreng et al., 1995; Roschk and Gelbrich, 2014; Gelbrich et al., 2015). This chapter will commence with a discussion of service recovery definitions and descriptions of the service recovery phase in Section 3.2. This will clarify the boundaries to the organisational actions considered in the review. The discussion then turns to the comparison of the extant service recovery frameworks, before presenting the adopted framework in Section 3.3. The adopted service recovery framework provides the structure of the main discussion of recovery tactics in Chapter 3. Subsequently, the implications of the recovery tactics employed in the recovery phase are discussed by discussing each category of recovery tactic in turn in Section 3.4. This synthesis will highlight recovery tactics that appear to be consistently effective, as well as research topics that appear to lead to conflicting or inconclusive findings. These insights will be integrated to argue for the importance of the chosen recovery tactics that will be studied in the empirical analyses. Then, Section 3.5 discusses the moderators of the effects of recovery tactics. This will inform the decision of which variables to incorporate as measured covariates in the empirical studies.

3.2 Definition of Service Recovery and the Recovery Phase

Service recovery researchers provide a multitude of definitions of service recovery. For example, service recovery can be defined as the service provider's actions in response to complaints from customers (Grönroos, 1988; Holloway and Beatty, 2003). Grönroos (1988) distinguishes between two recovery dimensions, namely, outcome and process. Outcomes pertain to tangible offers of compensation, while the process refers to the way in which the recovery is delivered (Dong et al., 2008; Weun et al., 2004). Basso and Pizutti (2016) define service recoveries as firms' attempts to rebuild trust following service failures. However, this implies that failures occur in the context of strong customer-service provider relationships. Adopting a different approach, Zeithaml et al. (1993) consider service recovery as the performance of a service employee following a service performance which fell below the 'zone of tolerance' of the customer. The zone of tolerance may reflect a range of quality levels that are deemed to broadly meet customers' prior expectations (Hogreve et al., 2017).

However, organisations can automate responses (Mattila et al., 2013), delegate service recovery responsibilities to the customer (Dong et al., 2008) and proactively initiate service recovery (Xu et al., 2014). Equally, firms can gain service recovery capabilities by searching for or encouraging complaints (Fornell and Wernerfelt, 1988), measuring the cost of recovery, adequately supporting employees and providing follow-up feedback (Hart et al., 1990). Therefore, Smith and Karwan (2010) define service recovery as "*the actions taken by service providers to resolve customer problems*" (p. 111). However, studies show that explanations for service failures might represent service recovery attempts (e.g., Grégoire et al., 2018). Thus, service

recovery can be broadly defined as searching for and dealing with service failures (Johnston, 1995).

Adopting the resource exchange perspective, Khamitov et al. (2020, p. 520) define service recovery as “*all the actions a firm can take to redress the grievances or loss caused by a service failure*”. This definition reflects the definition of service recovery forwarded by Smith et al. (1999), which refers to an effort to recompense customer losses due to service failure. Similarly, Hess et al. (2003, p. 129) define service recovery as firms’ and employees’ actions and activities “*to rectify, amend and restore*” customer losses due to performance deficiencies. These definitions incorporate non-customer-facing actions, however they restrict service recovery to restorative measures.

The aforementioned definitions focus on the desirable outcomes of service recovery for customers. Therefore, Van Vaerenbergh and Orsingher et al. (2016) extend the definition of service recovery to include organisations’ efforts to “*re-establish customer satisfaction and loyalty after a service failure, to ensure that failure incidents encourage organizational learning and process improvements, and to train and reward employees for this purpose*” (p. 330). In the current research, Van Vaerenbergh and Orsingher’s (2016) definition is extended to the double deviation context. Thus, service recovery can be described as *organisations’ efforts to restore customers’ post-failure emotions, cognitions, attitudes and/or behaviours, which can also incorporate the measures taken to achieve service improvements after service failure.*

Van Vaerenbergh et al. (2019) define the recovery phase as commencing with the first post-failure contact between the firm and customer, which often involves a

customer complaint. The recovery phase is considered to end when the recovery is completed or the customer stops trying to secure a recovery. However, Miller et al. (2000) deem the immediate recovery phase to commence when the firm becomes aware of the failure and end when “*fair restitution has been made to the customer*” (p. 389). This does not impose the condition of a customer-firm interaction. A further limitation of the definition provided by Van Vaerenbergh et al. (2019) is that it implies that customers remain in the recovery phase if they are not satisfied with service recovery and do not stop trying to secure a recovery. However, complaining to third parties is generally depicted as a post-recovery response (Grégoire et al., 2010). Considering these contributions an extended definition of the recovery phase is provided. The recovery phase begins when *the firm becomes aware of the service failure and ends when (i) the firm concludes its complaint-specific recovery activities or (ii) the customer considers the firm to have failed to provide a satisfactory service recovery.*

3.3 Service Recovery Frameworks and Typologies

This section provides an overview of the frameworks and typologies of service recovery. Researchers adopt either firm-level or individual, customer-level approaches to studying service recovery; the majority of service recovery studies focus on the latter unit of analysis (Van Vaerenbergh and Orsingher, 2016). Studies that examine service recovery at the firm level tend to consider the structural conditions that are conducive to effective service recovery (De Jong et al., 2004). These approaches highlight structural features or ‘components’ of the organisation that are conducive to service recovery performance (Smith and Karwan, 2010) including: accessibility, formality,

decentralisation, comprehensiveness, human intensity, system intensity, and influence (Smith et al., 2009). These studies indicate that features such as the development of internal guidelines and processes for recovery encourage service recovery performance, customer satisfaction (Smith and Karwan, 2010), retention and financial performance (Smith et al., 2012). Similarly, recovery performance appears to be driven by both formal complaint handling guidelines and supportiveness of the internal environment (Homburg and Fürst, 2005; Homburg et al., 2010).

Despite the valuable insights obtained from studies that adopt an organisational structure-based approach to the study of service recovery, these studies are not discussed in this literature review for three reasons. Van Vaerenbergh and Orsingher (2016) provide a comprehensive review of studies adopting a structural perspective. Studies of structural components appear to concur that the encouragement and support of complaint handling achieves superior recovery performance and that the extent of impact of structural aspects may be moderated by situational, relationship and customer characteristics (Homburg et al., 2010). Moreover, most service recovery studies focus on more fine-grained analysis of the effects of specific actions taken in the service recovery phase, in which multiple issues of contention emerge. This area of the service recovery literature focuses on how the customer facing aspects of recovery can be utilised to change the outcomes of service failure for focal or bystander customers. Therefore, this section begins with a discussion of the definitions and classifications of different types of recovery tactics, which appears to represent the dominant approach to service recovery conceptualisation. This will then feed into the main section of this chapter, which focuses on providing an overview of research into the consequences of recovery tactics.

3.3.1 Frameworks of Recovery Tactics

Definitions of service recovery and the recovery phase have been presented, as well as providing an overview of previous research into the components of the organisational structure, which appear to be conducive to service recovery performance. Although studies provide evidence of the importance of service recovery system dimensions, a greater emphasis appears to be placed on the importance of service recovery tactics, which are visible to customers (e.g., service re-performance). Moreover, while researchers consistently view high levels of the service recovery system dimensions to be beneficial for recovery performance (Smith and Karwan, 2010), the optimisation of service recovery strategies remains an issue of considerable debate (De Ruyter and Wetzels, 2000; Roschk and Gelbrich, 2014; Wei et al., 2020). However, most service recovery studies focus on conceptualising and empirically estimating the effects of a multitude of recovery tactics. In what follows, research into the effects of service recovery tactics on customer responses will be synthesised to illustrate the pertinence of these research topics.

A previous review of specific firm actions to recover individual service failures utilises the term 'organisational responses' (Van Vaerenbergh et al., 2019), while the term 'response' often appears in studies of customers' perceptions of firms' recovery attempts (e.g., Kelley and Davis, 1994; Tax et al., 1998; Borah et al., 2020). An organisational response can be described as "*the actual action itself taken by the organization*" (Davidow 2003, p. 232). This implies an overlap between the service recovery system and organisational responses as organisational procedures (e.g., influence or voice) can be viewed as procedural features and benefits provided for the customer (Goodwin and Ross, 1990). However, there are a broader set of

organisational responses than the service recovery system dimensions. These will be discussed, in turn, to provide an overview of the current state of research into organisational responses to service failure. This will indicate which tactics are deemed to be most effective and will raise the common debates in the service recovery literature concerning appropriate service recovery strategies.

3.3.1.1 Definition of Recovery Tactics

Service failure and recovery encounters can be described as utilitarian and/or symbolic exchanges (Smith et al., 1999). Utilitarian exchanges signify that a party confers economic resources to another, while symbolic exchanges involve the exchange of psychological or symbolic resources such as status and esteem (Smith et al., 1999). Although economic resources can alter psychological responses, symbolic resources are considered to focus predominantly on customers' perceptions of their esteem (Roschk and Gelbrich, 2014) and the way they are treated (Zhou et al., 2013). Foa and Foa (1974) distinguish between utilitarian and symbolic resources in terms of concreteness and particularism. Within this perspective, money, which can be considered as a utilitarian resource, may be deemed to be more tangible (Miller et al., 2000) and less reliant on the resource provider than self-esteem (Roschk and Gelbrich, 2014). Consistent with this perspective, the allocation of resources to recovery can be considered as an organisational response.

The label of 'recovery tactics' adopted in this research refers to organisational response options. This term is frequently utilised in the literature (e.g., Patterson et al., 2006) and captures the strategic nature of the selection of the appropriate action (Boshoff, 1997). The term also reflects that the appropriate actions may be contingent

on situational conditions. This label also captures that the protocol for handling failures can be decided in advance and may not merely be a reaction to customer complaints. The literature provides a plethora of classifications of tactics according to the relevant resources involved (e.g., Smith et al., 1990; Roschk and Gelbrich, 2014; Cambra-Fierro et al., 2015b). The classifications will be synthesised to clarify the classification adopted for the purpose of this research.

3.3.1.2 Classifications of Recovery Tactics

Smith et al. (1999) argue that the distinction between outcome and process recoveries implicitly refers to losses in utilitarian and symbolic exchanges, respectively. Accordingly, researchers categorise organisational responses as compensation, organisational procedures and employee behaviours (Estelami, 2000; Gelbrich and Roschk, 2011a). Compensation can be considered as a form of benefit that the organisation offers to the customer after a service failure (Roschk and Gelbrich, 2014), while employee behaviour may reflect service employees' empathetic or caring behaviour (Estelami 2000). The three categories span the dimensions of service recovery highlighted by Davidow (2003), including redress, apology, credibility, attentiveness, facilitation and timeliness. Redress and apology can be classified as compensation; attentiveness and credibility can be considered as favourable employee behaviour; facilitation and timeliness can be considered to reflect organisational procedures (Van Vaerenbergh et al., 2019).

Apologies may be considered to be more appropriate tactics to increase customers' self-esteem and achieve psychological benefits than monetary compensation (Roschk and Gelbrich, 2014). However, empirical studies indicate that

monetary compensation, apology and procedural elements may affect distributive, interactional and procedural justice perceptions (Smith et al., 1999). Indeed, just as timeliness can reassure the customer that the firm utilises fair methods to reach a resolution (del Río-lanza et al. 2009), an expedient recovery can afford efficiency gains, thereby limiting the non-monetary cost of recovery (Cambra-fierro et al., 2015b; Hogueve et al., 2017). Nevertheless, evidence suggests that compensation may be more closely related to distributive justice perceptions and favourable employee behaviours may be more related to interactional justice (Gelbrich and Roschk, 2011a).

Although it is acknowledged that tangible compensation can be distinguished from psychological compensation (Roschk and Gelbrich, 2014), this categorisation is not chosen. This is due to considerable debate concerning whether apology represents compensation or favourable employee behaviour. Gelbrich and Roschk (2011b) note that compensation pertains to the reinstatement of financial and social losses. This claim is echoed by Mattila and Patterson (2004) and Van Vaerenbergh et al. (2019). Accordingly, Roschk and Gelbrich (2014) consider apologies as “psychological compensation”, which restores social losses.

However, Roschk and Kaiser (2013) contend that an apology is ineffective without the transmission of empathy, which may blur the line between favourable employee behaviours and compensation. Homburg and Fürst (2005) classify an apology as a form of employee behaviour and service recovery outcomes as forms of tangible compensation. Davidow (2000, 2003) defines redress as a benefit or response outcome offered by the organisation to address a customer complaint, which is distinct from the offer of an apology. Similarly, Cambra-fierro et al. (2015a) provide a resource-based model of customer responses to recovery, which is sensitive to the failure type

and customers' relationship with the service provider. This categorisation includes apologies as communications, rather than compensation, due to their social orientation. Moreover, Shin et al. (2018) describe apologies as a form of social recovery, which can influence psychological states and perceptions of fairness of interpersonal treatment. A similar perspective is adopted in the current research, as this avoids the implication that social losses can be counted and recompensed in the same manner as financial compensation.

The current research argues that a distinction can be made between the main foci of recovery tactics on eliciting economic benefits, improving recovery methods and enhancing social benefits (Cambria-fierro et al., 2015b). Therefore, 'utilitarian recovery tactics' refer to the actions conducted by the firm to transfer economic benefits from the firm to the customer. 'Procedural recovery tactics' refer to the firm's actions that aim to improve the recovery method. 'Psychological recovery tactics' concern the firm's actions that confer social resources to the customer. This chapter is structured according to the three broad categories of utilitarian, procedural and psychological recovery tactics. Please refer to appendices 3.1 and 3.2, which contain the dominant typologies within the service recovery literature and the proposed typology, respectively.

The typology should not be interpreted as containing three entirely independent categories, as empirical evidence indicates that procedural tactics can afford economic benefits (Roggeveen et al., 2012; Cambra-Fierro et al., 2015b). However, researchers appear to concur that a subset of recovery tactics (e.g., timeliness) focus predominantly on altering the perceived fairness of the process used to obtain an outcome (Goodwin and Ross, 1990). Therefore, the classification of organisational

procedures as psychological tactics reflects the main function of the recovery tactic. In what follows, the effects of recovery tactics on customers' cognitions, emotions and behaviours will be discussed.

3.4 Recovery Tactics

This section begins by addressing the different forms of utilitarian recovery tactic (Section 3.4.1). This is followed by an overview of the different forms of psychological recovery tactics (Section 3.4.2) and procedural recovery tactics (Section 3.4.3). A detailed discussion of every service recovery tactic in the service recovery literature is beyond the scope of this literature review. Therefore, a summary of the highly researched recovery tactics within each category will be presented. This will feed into a discussion of organisational, situational and customer variables affecting customer responses to service recovery (Section 3.5). Concluding remarks will be provided in Section 3.6.

3.4.1 Utilitarian Recovery Tactics

The previous section concluded that utilitarian recovery concerns the more tangible elements of recovery. Given that Davidow (2003) contends that redress is the most researched dimension of complaint handling, the review of recovery tactic effects begins with a synthesis of the progress of research into tangible compensation. Roschk and Gelbrich (2017) define a resource as tangible when it represents "*something physical that can be touched*" (p. 394). Estelami (2000) defines compensation as the offer of a tangible benefit such as refunds, replacements, or discounts. The provision of tangible compensation such as monetary compensation helps improve the output-

internal equity of the customer, as well as the balance between the customer and firm ratios (Estelami, 2000). Therefore, this section deals with the categories of compensation discussed by Roschk and Gelbrich (2014), excluding the apology, including monetary compensation, new/re-performed services and new/replacement goods.

3.4.1.1 Compensation

This section provides an overview of the different forms of compensation studied in the service recovery literature. Acknowledging that compensation constitutes a broader organisational response than the offer of financial remuneration (Gelbrich and Roschk, 2011a), the implications of the provision of monetary compensation, new/re-performed services and new/replacement goods will be discussed within the compensation category. Compensation refers to the more tangible outcomes of recovery (Gelbrich and Roschk, 2017) and therefore this term is used interchangeably with redress in this research.

3.4.1.1.1 Classifications of Compensation

Monetary compensation appears to be a highly researched form of tangible compensation (Crisafulli and Singh, 2017). Monetary compensation can be considered to include vouchers, store credits, discounts and money back (Roschk and Gelbrich, 2014) and appears to reduce customer anger and dissatisfaction (Bitner et al., 1990). Indeed, prior research indicates that customers expect firms to provide redress in response to service failure (Johnston and Fern, 1999). Roschk and Gelbrich (2014) distinguish between immediate and delayed monetary compensation, which pertain to

cash-back and vouchers, respectively. Gelbrich and Roschck (2011b) also distinguish between simple compensation and overcompensation. Simple compensation can be defined as “remuneration amounting to $\leq 100\%$ [of the loss]” (Gelbrich and Roschck, 2011b, p. 32). Therefore, overcompensation can be described as the restoration of customer assets to their failure-free state, and the provision of an additional monetary benefit (Gelbrich and Roschck, 2011b, p. 32). New/replacement goods and new/reperformed services can be considered as forms of compensation, which restore goods and services, respectively (Roschck and Gelbrich, 2014). Service recovery research includes a wealth of empirical research into the assessment of the effects of compensation, which will be discussed in the following section.

3.4.1.1.2 Simple Compensation

This section discusses the ability of monetary compensation, new/re-performed services and new/replacement goods to restore customer losses. Despite the subjectivity of the valuation of customer losses due to service failure (Gelbrich et al., 2015), service recovery researchers often utilise the purchase price as an approximation of the value of maximum simple compensation (Gelbrich and Roschck, 2011b). Therefore, this section concerns offers of reimbursement up to and including the purchase price of the service. Studies utilising the critical incident technique extend understanding of the importance of compensation. For example, Bitner et al. (1990) find that the offer of vouchers (e.g., free airline tickets) can increase customer satisfaction following experiences of unavailable service, slow service and core service failures. Kelley et al. (1993) provide evidence that the provision of discounts, refunds, corrections and replacements is associated with high recovery ratings and high

customer retention rates. Similarly, Hoffman et al. (2003) report that the provision of free goods and services, replacements, coupons, free service upgrades and free ancillary products (e.g., appetisers) leads to high recovery ratings. Moreover, Hoffman et al. (1995) provide evidence that offering free food and discounts increases recovery ratings and repatronage, while Conlon and Murray (1996) provide evidence that coupons enhance satisfaction with complaint handling and repatronage intent.

Despite the valuable insights obtained from CIT studies, CIT is limited by recall bias and the presence of contextual confounds. Instead, Smith et al. (1999) experimentally manipulate the extent of discount provided to provide evidence that discounts raise distributive justice perceptions and service encounter satisfaction (Smith et al., 1999; Mattila, 2001). Similarly, experimental studies indicate that monetary compensation (refunds) can alleviate customers' exit, NWOM, complaint and third-party complaint intentions (Bonifield and Cole, 2008). However, an exception is provided by Kanuri and Andrews (2019), who find that if subscription service providers offer price incentives to recover from service failure, customers may be less likely to renew their contracts in the future. This is thought to be because the price incentive adjusts the customer's reference price, such that the renewal price is perceived to be higher.

Prior research also indicates that the offer of monetary compensation can increase customers' positive emotions (Chebat and Slusarczyk, 2005; Grégoire et al., 2018) and reduce customers' negative emotions (e.g., anger, Bonifield and Cole, 2008; Gelbrich, 2010). Empirical studies also provide evidence that this leads to reduced negative behaviours such as direct and indirect revenge behaviours (Joireman et al., 2013). Researchers also provide evidence that customers are less likely to require an

explanation if monetary compensation is present (Gelbrich, 2010). However, Smith and Bolton (2002) find that the effects of monetary compensation on satisfaction vary across service type. Overall, a meta-analysis by Gelbrich and Roschk (2011a) demonstrates that the effects of compensation on distributive justice, transaction-specific satisfaction and NWOM are greater than the effects of favourable employee behaviours and organisational procedures.

3.4.1.1.3 Boundaries to the Effects of Compensation

Smith et al. (1999) present mixed results concerning the effectiveness of monetary compensation at raising customer justice perceptions under different failure severity conditions. However, two alternative theoretical perspectives concerning the interaction between compensation amount and failure severity are proposed. On the one hand, the recovery effect of compensation may be higher following low severity failures, because the compensation is more able to restore the loss (Smith et al., 1999). Indeed, an increase in failure severity might raise the level of customer involvement, thereby enhancing customers' sensitivity to the quality of the recovery (Kim and Uldago, 2012). On the other hand, customers may experience feelings of guilt, due to the experience of positive inequity (Smith et al., 1999). Weun et al. (2004) report a significant negative effect of severity on the relationship between distributive justice and satisfaction. Similarly, Liao (2007) provides empirical support that severity limits the positive impact of problem solving on customer justice perceptions. Moreover, researchers appear to concur that failure severity raises customers' service recovery expectations (McCollough, 2009). Considering these studies and studies of the effects

of multiple levels of compensation, customers would appear to value compensation that matches the severity of the failure.

Applying attribution theory, Folkes (1984) provides evidence that when a failure is controllable and firm-related, customers deem that they are entitled to refunds. Folkes (1984) also provides empirical support for the notion that customers who experience stable failures prefer a refund to an exchange. Equally, service recovery researchers provide evidence that controllability attributions are raised by the offer of compensation (Bitner, 1990; Wirtz and Mattila, 2004). Thus, the provision of compensation might imply an acceptance of blame (Boshoff and Leong, 1998). Drawing together these insights, Grewal et al. (2008) contend that both stability and controllability are required for compensation to significantly raise repurchase intentions.

Multiple studies demonstrate that the format in which compensation is provided significantly influences the effectiveness of compensation. Roschk and Gelbrich (2014) provide evidence that immediate compensation yields greater recovery effects than delayed compensation. However, this effect only appears to occur with respect to satisfaction and positive WOM intentions, as immediate and delayed compensation exert equal impacts on loyalty intentions. Chuang et al. (2012) contend that individuals perceive outcome failures as tangible losses and process failures as psychological losses. Expanding upon these findings, Roschk and Gelbrich (2014) forward the matching hypothesis, which indicates that the type of compensation offered by the firm should accurately reflect the type of resource loss caused by service failure. A further study indicates that the recover should also match the nature of the customer-service provider relationship (Cambra-Fierro et al., 2015b).

Moreover, Roschk and Gelbrich (2017) demonstrate how matching the particularism (i.e., personalisation) and concreteness (i.e., tangibility) of compensation to the relational context of failure can positively affect customers' cross-buying behaviour and obligation to reciprocate. Nazifi et al. (2021a) highlight two further boundary conditions to the effects of compensation, including (a) the proactivity of the service recovery and (b) whether the customer volunteers to experience the service failure. Accordingly, when firms proactively engage in recovery and customers voluntarily accept the failure outcome, customers appear to require less compensation and become less responsive to extremely high levels of compensation. Customer responses to compensation also appear to vary depending on the form of currency utilised (cryptocurrency vs. more traditional formats), consumer innovativeness, the presentation of currency in the nominal or face value and the framing of the benefits of the currency (Nazifi et al., 2021b).

Customers' preferences for tangible vs. intangible compensation and visual vs. textual compensation appear to depend on the service failure experienced and customers' level of cognitive construal (Sinha and Lu, 2019). Cognitive construal may lead to additional differences in recovery preferences, as research outside of the service recovery literature indicates that an abstract mindset may encourage customers to focus on the similarity between objects and social groups (McGowan et al., 2022). In a different line of research, Halbheer et al. (2018) argue that decisions about price levels, optimal failure rates, failure prevention strategies, failure protection services and compensation levels impact on each other. This highlights how the strategic value of compensation may be contingent on the costs of improvements. Although this issue remains underexplored, service recovery researchers have begun

to examine how strategic decisions about the level of concurrent recovery tactics can impact on the effect of compensation.

3.4.1.1.4 The Interaction Between Distributive Justice and Interactional Justice

Prior research indicates a stronger relationship between compensation and satisfaction when compensation is accompanied by high levels of procedural (Sparks and McColl-Kennedy, 2001) and interactional justice (Blodgett et al., 1997). McCollough et al. (2000) provide evidence of an interaction effect between distributive and interactional justice, such that the effects of distributive and interactional justice appear to be more positive when similar amounts of each justice dimension are present. Similarly, Tax et al. (1998) note an interaction effect between distributive justice and procedural justice, and distributive justice and interactional justice. Moreover, the analysis of female responses to a study conducted by Mattila et al. (2009) provides empirical support for the notion that compensation should be accompanied with psychological recovery tactics. These findings indicate the presence of a 'synergistic effect' (McCollough et al., 2000, p. 132) of providing high levels of multiple justice dimensions and a 'sham effect' (Goodwin and Ross, 1992, p. 152) following mismatched levels of justice dimensions.

The sham effect is brought into question by Wirtz and Mattila's (2004) findings that compensation is most effective when it is provided in the context of "mixed bag" recoveries. Indeed, although Wirtz and Mattila (2004) find that the late and unapologetic provision of compensation can lead customers to feel "bought off", the timely provision of compensation appears to be effective in compensating for the absence of an apology. In addition, Huang (2010) find that when employee effort is

high, a ceiling effect occurs, in which compensation appears to be ineffective. In a similar vein, Wei et al. (2020) compare the effects of providing high vs. low compensation with the effects of providing an apology, demonstrating that apologies can be more effective at fostering forgiveness. However, these studies examine failures of low severity compared to the delayed flight scenario in the study by McCollough et al. (2000), which might explain why compensation appears to be ineffective as the level of interactional or procedural justice is raised. Consistent with this notion, Worsfold et al. (2007) contend that the interaction effect between procedural and distributive justice may not occur for failures of extremely low and extremely high severity. This is met by calls for research into the optimum combination of economic and psychological recovery tactics following service failure (Wei et al., 2020).

Despite the focus of the aforementioned studies on explicating the impact of varying combinations of tangible and psychological tactics, the previous studies do not explicitly address the prevalence of the sham effect in conditions of extremely high compensation. Thus, there is a need to reconcile the implications of the sham effect and the matching hypothesis, by clarifying the implications of different compensation levels following different types of service failure. This issue will be revisited in Chapter 5, in which extant insights will be drawn together to form a conceptual model and supporting hypotheses. Next, the extant insights regarding the effects of overcompensation are summarised.

3.4.1.1.5 Overcompensation

The importance of establishing the effects of extremely high offers of compensation is also underlined by the consumer satisfaction/dissatisfaction literature, which posits that

satisfying service experiences might fall into three categories: normal, unusual and surprising (Oliver, 1989). In this regard, researchers contend that customers experience 'delight' -a combination of positive affect, arousal and surprise- following extremely positive disconfirmation, which raises customers' repatronage intentions (Oliver et al., 1997). Thus, researchers call for research which elucidates the ways in which service providers can exceed customer expectations (Estelami and de Meyer, 2002). A potential approach could be the provision of extremely high levels of monetary compensation.

Service recovery studies indicate a curvilinear relationship between compensation and satisfaction (e.g., Gelbrich et al., 2015). Researchers often investigate whether overcompensation yields positive customer responses by experimentally manipulating the amount of overcompensation provided (e.g., Noone, 2012). Appendix 3.3 provides a summary table of the key contributions concerning the recovery effect of overcompensation. Prior studies operationalise overcompensation in a multitude of ways, measure a range of cognitive and behavioural consequents, and provide conflicting findings concerning the effects of overcompensation. Garrett (1999) provides evidence that overcompensation does not significantly raise satisfaction, while Estelami and De Maeyer (2002) demonstrate that in the event of customer-initiated failures, customers may experience feelings of indebtedness, and may deem service provider generosity to be ethically incorrect or negatively motivated.

In contrast, other studies demonstrate that satisfaction ratings are significantly enhanced by the offer of a refund in addition to service reperformance (Mattila and Patterson, 2004) and by the offer of a gift in addition to a refund (Boshoff, 1997). Moreover, satisfaction and repatronage appear to be positively affected by

compensation which exceeds the industry standard (Noone and Lee, 2011). Gelbrich and Roschk (2011b) conduct a meta-analysis to show that the effect size of overcompensation on transaction-specific satisfaction is significantly lower than that of simple compensation. Thus, it is contended that the compensation-satisfaction relationship may reflect the law of diminishing marginal utility (Jolink and van Daal, 1998) and the Weber-Fechner law (Dehaene, 2003), which indicates a diminishing sensitivity to increases in exposure to a stimulus. Consistent with this, Noone (2012) finds that cash-based overcompensation is positively and curvilinearly associated with customer perceptions of fairness and negatively associated with NWOM intentions. Together, these findings are consistent with prospect theory (Kahneman and Tversky, 1979), as the increase in satisfaction associated with an increase in compensation decreases as the compensation value moves further away from the purchase price.

Gelbrich et al. (2015) provide a more nuanced understanding of the variables influencing the compensation-satisfaction curve. Accordingly, if the customer accepts the service, the compensation-satisfaction curve appears to reflect the law of diminishing marginal utility. However, if the customer rejects the service, the compensation-satisfaction curve appears to be S-shaped, pivoting just below the value of the purchase price and reaching saturation at approximately 170%. Extending these findings, Gelbrich et al. (2016) provide evidence that responses to overcompensation are governed by the positive reciprocity norm (Cropanzano and Mitchell, 2005), such that diminishing marginal returns are mitigated by strong prior customer-firm relationships.

Moreover, Haesevoets et al. (2019) provide evidence that the extent of customers' concern for fairness from the perspective of the victim can also moderate

responses to overcompensation. Studies of more extreme levels of compensation indicate that when compensation increases from 175% to 250%, customer loyalty can decrease (Haesevoets et al., 2017, 2019). However, few studies provide evidence that overcompensation can become counterproductive (Gelbrich and Roschk, 2011b). This indicates a need for future studies to explore extremely high levels of compensation to further investigate the limits of compensation.

This section addressed the effects of the amount and type of tangible compensation, as well as the prior evidence of interaction effects between tangible compensation and psychological recovery tactics. This section asserted that the boundary conditions to the effects of overcompensation warrant further research attention. In addition, money and apology appear to interact with each other to affect service recovery satisfaction (Wirtz and Mattila, 2004), which suggests that studying the effects of monetary overcompensation in isolation may provide misleading results. However, studies into overcompensation tend to focus on the incremental effects of monetary compensation in isolation (Noone, 2012), while the implications of overcompensating with diverse recovery tactics are unknown. This has led Wei et al. (2020) to call for research into the optimum combinations of money and apology to provide following service failure. The next section discusses psychological recovery tactics, to establish which psychological recovery tactics are most in need of further investigation. In so doing, this will pave the way for the present study, which focuses on two tactics: monetary overcompensation and empathy of apology.

3.4.2 Psychological Recovery Tactics

The following section addresses recovery tactics that can restore or enhance the customer's psychological resources. Psychological recovery tactics can be considered to attempt to elevate customer esteem and status following service failure (Smith et al., 1999). Rooted in resource exchange theory (Foa and Foa, 1976), Roschk and Gelbrich (2014) contend that psychological recovery tactics focus on the reinstatement of customers' status and esteem, by providing affectionate concern and taking responsibility for the failure. Some of the most frequently researched psychological recovery tactics include apologies (You et al., 2020), justifications (Bradley and Sparks, 2012), downward social comparisons (Bonifield and Cole, 2008) and concern (McCull-Kennedy et al., 2003). Research into psychological recovery tactics provides a wealth of information concerning potential consequences and boundary conditions that can inform how to recover from double deviation. Therefore, this section provides a brief overview of the rich area of research into credibility and attentiveness in Section 3.4.1 and Section 3.4.2, respectively, to provide a summary of the key findings of research into different gradations of psychological recovery tactics. The apology tactic will be discussed in detail in Section 3.4.3, to present the rationale for the focus of the empirical studies on the effects of empathetic apologies.

3.4.2.1 Credibility

Qualitative analyses of online complaints suggest that the provision of an account for service failure is a common organisational response (Sparks and Bradley, 2017). An explanation appears to enhance customer perceptions of the credibility of the firm and the service recovery (Davidow, 2003). Colnon and Murray (1996) contend that when the company acknowledges the existence of the problem, displays humility, provides

a justification for the failure and accepts responsibility, customer satisfaction and loyalty increase. Given that explanations can encourage customers to revise their attributions, they are thought to improve the service provider's image (Hareli, 2005) and to mitigate customer anger (Nguyen and McColl-Kennedy, 2003). Accordingly, researchers usually consider an explanation as a form of employee behaviour, which alters customer perceptions of the encounter (Roschk and Gelbrich, 2014). Indeed, researchers provide empirical evidence that external explanations can reduce the controllability attributed to the firm (Bitner, 1990), drive the attribution of failure to situational causes (Wirtz and Mattila, 2004) and can reduce the inference of negative firm motives (Joireman et al., 2013). Moreover, studies indicate that the favourable effects of explanations on attributions translate into lower recovery expectations (Bitner, 1990; Bonifield and Cole, 2008; Hogleve et al., 2017).

According to social accounts theory, explanations can increase perceived fairness (Bies, 1987; Bies et al., 1988). Based on Bies' (1987) framework of social accounts, Wang et al. (2009) present a typology of explanations for service failure, including: causal, ideological, referential-people, referential-time, referential-aspiration, and penitential. According to Wang et al. (2009), causal accounts (or excuses) convey the denial of responsibility and ideological accounts (or justifications) demonstrate the firm's acceptance of responsibility. Moreover, referential accounts are considered to pertain to the comparison of customer experiences with other customers' experiences (referential-people), different future outcomes (referential-time) or prior expectations (referential-aspirational), whereas penitential accounts pertain to the provision of apologies (Wang et al., 2009). Referential-people accounts can also be labelled downward social comparisons (DSCs). DSCs can be described as efforts to

lessen the apparent severity of the service failure (Sparks and Fredline, 2007). Sparks and Fredline (2007) utilise group value theory (Tyler and Lind, 1992) to explain that DSCs can improve the perceived value of outcomes, by raising customers' perceived status relative to other customers. Therefore, explanations appear to alter customers' reference levels and failure magnitude perceptions (Bonifield and Cole, 2008).

Researchers also highlight the implications of explanations for interactional justice perceptions (Tax et al., 1998). Within this perspective, explanations raise perceptions that the firm treats customers fairly. Liao (2007) contends that explanations might be perceived as valuable pieces of information, which help customers to understand the service environment. Thus, researchers introduce the concept of 'informational fairness', which pertains to the perceived adequacy of explanations (Colquitt, 2001). Therefore, the provision of thorough, reasonable and clear explanations may enhance customer perceptions of explanation adequacy and satisfaction (Sparks and Fredline, 2007).

Wang et al. (2009) provide evidence that justifications lead to the highest customer perceptions of informational justice, followed by reference, excuse and penitence. Sparks and Fredline (2007) report that referential accounts lead to higher satisfaction and repatronage intentions than justifications. However, Hareli (2005) notes that researchers often vary the quality of explanation content within manipulations of explanation type, which confounds the effect of explanation type. Consistent with this perspective, Bradley and Sparks (2012) provide evidence that when explanation quality is high, apologies and excuses can lead to higher satisfaction than justifications, while apologies can instigate higher satisfaction than referential accounts.

Studies of bystander reactions to service recovery on social media provide evidence that explanations can be damaging. For example, explanations that deny responsibility appear to lead to similar levels of brand attitude, purchasing risk, repatronage and WOM intentions to the absence of a response (Weitzl and Hutzinger, 2017). Similarly, doubting responses appear to lead to lower levels of brand attitude, brand trust and PWOM intention (Weitzl and Hutzinger, 2017). However, evidence also suggests that the agency of the explanation moderates responses, as brand advocates' vouching responses appear to reduce bystanders' attribution of blame to the firm, perceived purchasing risk and NWOM intentions (Weitzl and Hutzinger, 2017). Moreover, Laer and De Ruyter (2010) argue that the congruence between the content of the explanation and the format in which the explanation is presented can influence customer responses. For example, denials appear to be more effective when presented in analytical formats.

In addition to retrospective explanations, prospective information may help customers overcome service failures (Gelbrich, 2010). Studies indicate that customers value the procedural tactic of provision of credibility feedback (Van Vaerenbergh et al., 2019), which communicates the measures taken to prevent the recurrence of failures (Michel et al., 2009; Davidow, 2003). Alexander (2002) contends that ethical recoveries can signal that the firm intends to improve its conduct following service failure, thereby enhancing satisfaction and reducing switching and NWOM intentions. Similarly, promises the failure will not recur appear to signal the integrity of the service provider, thereby enhancing trust (Basso and Pizzutti, 2016). Similarly, informing the customers of employee reprimands appears to increase recovery satisfaction, by enhancing customers' fairness perceptions (Pugh et al., 2018). Together these studies indicate

that psychological tactics that reassure the customer that the firm intends to change its behaviour in the future may alleviate the damage caused by service failure.

When the effect of explanation is compared with the effects of apologies, interactional courtesy, prompt handling, and problem resolution, it exerts little influence over justice perceptions (Liao, 2007). Moreover, studies indicate that when compensation is provided, explanations may be ineffective. Similarly, Pugh et al. (2018) provide evidence that excuses yield significantly lower satisfaction ratings than the provision of monetary compensation and apologies. Although researchers present evidence of the effectiveness of particular forms of explanation (Bonifield and Cole, 2008), evidence also suggests that explanations can be prone to backfiring effects such as the inference of manipulative intentions of the service provider (Antonetti et al., 2018).

Extant research findings indicate that the effect of explanations on service recovery evaluations may be “drowned out” by the effects of the other dimensions. Moreover, studies indicate that explanations may instigate negative effects, if customers infer that they are a manipulative attempt to reduce severity perceptions or direct blame towards other parties. The effectiveness of explanations also may be influenced by the plausibility or quality of the explanation, rather than the type of explanation provided. This section clarified that multiple forms of explanation have been studied in prior research and that multiple boundaries to the effects of explanations have been identified. Therefore, this research does not examine the effects of explanations, rather the theories underlying the effects of explanations are applied to form predictions about the effects of empathetic apologies.

3.4.2.2 Attentiveness

Attentiveness can be described as the level of care and attention provided for the customer, incorporating respect, effort, empathy, and a willingness to listen to the complainant (Davidow, 2003). These tactics are investigated in a plethora of empirical studies (e.g., McCollough et al., 2000). However, prior research provides conflicting evidence concerning the efficacy of attentiveness. Thus, the evidence of the effectiveness of this tactic will be addressed, before presenting potential explanations for the tension in the literature and narrowing the focus of the current research.

Some studies report the effect of attentiveness on satisfaction to be stronger than that of redress (Davidow, 2000; Estelami, 2000) and find that respect and courtesy can significantly increase repurchase intentions and decrease NWOM (Blodgett et al., 1997). Consistent with these findings, Sparks and McColl-Kennedy (2001) provide evidence that customers display higher satisfaction with service recovery and repurchase intentions when the organisation displays concern. Similarly, Umashankar et al. (2017) provide evidence that when customers with strong service provider relationships receive sincere feedback requests, the relationship between complaining and loyalty is strengthened.

However, Liao (2007) finds the effect of courtesy on perceived justice to be lower than the effects of apology, problem solving and prompt handling, while Maxham (2001) finds that displaying a willingness to listen, in isolation, is an ineffective recovery strategy. Nevertheless, studies indicate that when attentiveness is grouped with other recovery tactics it exerts an impact on cumulative satisfaction through justice perceptions (Gelbrich and Roschk, 2011a). However, researchers often manipulate attentiveness by varying multiple different forms of employee behaviour (e.g.,

McCollough et al., 2000), which may obscure the effects of attentiveness. For example, although earlier studies include the effect of gratitude within manipulations of courtesy (e.g., Blodgett et al., 1997), a recent study by You et al. (2020) investigates the effects of the recovery tactic of appreciation in isolation. You et al. (2020) conclude that appreciation is particularly effective at raising customers' self-esteem, which raises post-recovery satisfaction, repatronage and recommendation intentions. However, the quality of the apology and appreciation displayed to customers is held at a constant level. It could be argued that extant understanding of the effects of attentiveness would be enhanced by considering other aspects of attentiveness in isolation.

One aspect that has not been studied in detail and in isolation is empathy, notwithstanding that Roshck and Kaiser (2013) consider this aspect to be particularly instrumental in guiding customers recovery satisfaction and repatronage intentions. Empathy can be considered to include three responses, which vary in terms of complexity. First, emotional contagion concerns the ability of one individual's emotions to impact on another's emotions (De Waal, 2008). Second, sympathetic concern can be considered to reflect the cognitive appraisal of the other's situation and concern for the other's wellbeing (De Waal, 2008). Third, empathic perspective-taking can be described as the adoption of another individual's point of view (De Waal, 2008). This aspect can be considered to represent the combination of the emotional responsiveness and cognitive concern associated with the first two components, as well as the imaginative ability to adopt the other person's perspective (Radu et al., 2018). Hence, operationalisations of empathy often convey the experience of sorrow, the understanding of another's experience and the expression of personal discomfort concerning the other person's experience. One study indicates that artificial

intelligence may be used to convey empathy and therefore, yield positive service recovery outcomes (e.g., increased trust and future intentions to use the AI, Lv et al., 2022). However, this study does not incorporate the role of emotional contagion. In contrast, studies of employee empathy often consider empathy as a component of the organisational apology delivered by the service employee. Therefore, this component will be discussed in more detail in the next section.

Overall, prior research indicates a positive effect of attentiveness on repatronage and PWOM, through the mediation of perceived justice and satisfaction (Gelbrich and Roschk, 2011a). However, the manipulation of attentiveness often includes the manipulation of multiple tactics (e.g., politeness and empathy). Moreover, when individual tactics are considered, the extent of the quality of such tactics appears to be held constant. Therefore, there is a need to explore whether individual dimensions can explain the variance in customer responses and to consider whether the magnitude or quality of a tactic can influence customer responses. Considering the importance of examining the effects of different levels of tactics, rather than the presence and absence of tactics, the next section introduces the second recovery tactic that is investigated in this research.

3.4.2.3 Apology

Research indicates that apologies are effective strategies to repair self-esteem damage (Nguyen and McColl-Kennedy, 2003) and are applicable to customers who feel slightly annoyed, or even victimised due to service failure (Bell and Zemke, 1987). Therefore, the apology has gained the status of a “given” recovery tactic, which appears to be useful following failures of diverse severity levels (Johnston and Fern, 1999; Weun et al., 2004). By consequence, researchers often use isolated apologies

as baseline recovery approaches (e.g., Webster and Sundaram, 1998), thereby accepting the implicit assumption that apologies always lead to positive customer outcomes (Roschk and Kaiser, 2013). Considering the valuable contribution of Roschk and Kaiser (2013) that poor apologies are no more effective than the absence of an apology, one of the aims of this study is to further elucidate the boundaries of the aforementioned assumption. This section explores research concerning the effects of the apology on post-recovery cognitions and behaviours.

3.4.2.3.1 Definitions of Apology

Davidow (2003) defines an apology as “*an acknowledgement by the organization of the complainant’s distress*” (p. 232). Researchers also note that an apology can communicate the transgressor’s acknowledgement of responsibility for the violation and the damages incurred by the victim (Basso and Pizzutti, 2016, p. 211). Similarly, Bies (1987) describes an apology as a type of social account or explanation that admits failure and displays remorse, which implies that apologies may be intrinsically connected to guilt (Laer and De Ruyter, 2010). Indeed, law researchers note that although early accounts of apologies appear to reflect explanations, apologies appear to be perceived as the admission of fault, and therefore, often are utilised as evidence of liability (Cohen, 1999). Therefore, apologies are often characterised by the admission of fault, as well as the expression of regret and sympathy, the lack of which appears to reduce the perceived sincerity of the apology (Cohen, 1999). Consistent with this, Roschk and Kaiser (2013) consider apologies to raise customers’ esteem by assuring the customers of the firm’s remorse and acceptance of guilt. Apologies can

be provided before, during or after service failure, but most service recovery studies focus on post-failure apologies (Roschk and Kaiser, 2013).

3.4.2.3.2 Impact of Apology

Empirical studies provide evidence that apologies enhance satisfaction with service recovery (Boshoff and Leong, 1998; Smith and Bolton, 2002) through the mediation of interactional justice (Smith et al., 1999). Apology also appears to elicit higher perceptions of interpersonal justice (politeness and courtesy) than excuses, justifications and referential accounts (Bradley and Sparks, 2009). Given that interactional justice appears to influence repatronage and WOM intentions (Blodgett et al., 1995), these findings indicate that the apology may be an important recovery tactic. Moreover, Edvardsson et al. (2011) provide evidence that the failure to provide apologies and empathy represents a recurrent cause of triple deviations. Therefore, apology appears to be an influential recovery tactic.

Bradley and Sparks (2012) provide evidence that the provision of an apology can also enhance the customer's attitude towards the service provider. Cremer (2010) contends that apology provides relational benefits by convincing the victim of the transgressor's desire to preserve the relationship. This is consistent with service recovery studies which indicate that apologies can be particularly effective at enhancing customers' desires for reparation (Joireman et al., 2013). Apologies also appear to be perceived as ethical responses to failure, as studies provide evidence of an association between apology and the perceived integrity of the firm (Xie and Peng, 2009; Laer and De Ruyter, 2010; Basso and Pizzutti, 2016).

On the contrary, multiple studies do not indicate a significant effect of apology on recovery satisfaction (Davidow, 2000; De Ruyter and Wetzels, 2000). Goodwin and Ross (1992) compare the effects of monetary compensation, apology and voice across the dental service, airline, automotive repair and restaurant industries. While monetary compensation appears to influence fairness perceptions and recovery satisfaction, apology appears to be ineffective. Moreover, Fang et al. (2013) provide evidence that when the effects of apologies are measured over multiple weeks, they are less effective than tangible compensation and the communication of quality improvement information. This effect appears to be attributed to the pertinence of apologies for affective (vs. cognitive) responses, which can be considered to exert less of an influence on customer satisfaction across time.

Researchers also call into question the impact of apologies on repatronage. While De Ruyter and Wetzels (2000) provide evidence of a significant effect of apology on trust, the effects of apology on service quality perceptions, satisfaction and loyalty appear to be insignificant. Moreover, Kelley et al. (1993) conclude that apologies can raise repatronage, but that the impact is less strong than the impact of monetary compensation and new/reperformed services. Furthermore, Boshoff and Leong (1998) provide evidence that employee empowerment and blame acceptance yield greater recovery effects than the mode of apology provided (i.e., personal, telephone or e-mail apology). Davidow (2000) provides evidence that apology reduces repatronage and increases WOM. Therefore, the literature reports mixed results for the effects of apology on customer attitudes and behavioural intentions (Davidow, 2003). The next section integrates research into boundaries to the effects of apologies to provide an explanation for the conflicting results.

3.4.2.3.3 Boundary Conditions to the Effects of Apologies

Scenario-based experiments indicate that apologies may be ineffective unless they are accompanied by financial compensation (Goodwin and Ross, 1992; Boshoff, 1997). These findings are reflected in a study utilising the critical incident technique (Miller et al., 2000). In a similar vein, McCollough et al. (2000) provide empirical evidence that the effect of the provision of psychological recovery tactics increases when high levels of compensation are provided. However, the extent of employee effort, problem resolution, courtesy and apology are varied within the same interactional justice manipulation. Therefore, further research is needed to isolate the effects of empathy of apology, to establish whether empathy of the apology and monetary compensation interact.

Studies of resource exchange theory (Foa and Foa, 1976) indicate that individuals display a preference for resources that are perceived to be appropriate to the exchange context. For example, in exchanges with friends and acquaintances, individuals appear to prefer psychological resources. Therefore, in the business setting, customers might favour the exchange of services or money more than symbolic resources, as utilitarian resources might be perceived to be more appropriate to the exchange context. Consistent with this perspective, Liao (2007) provides evidence that utilitarian elements (e.g., problem solving) may be more effective than apologies to restore justice perceptions following single deviations.

Ringberg et al. (2007) argue that when failures provide evidence that the firm does not care for the customer, psychological recovery tactics (e.g. apologies) may be particularly effective recovery tactics. Similarly, Roschk and Gelbrich (2014) contend that when the failure involves a lack of attention, the apology will be more effective

than monetary compensation, however empirical support is not obtained for this claim. This might indicate that monetary compensation can convey symbolic meaning, indeed economic experiments provide evidence of this effect (see Haesevoets et al., 2013). In a similar vein, Grewal et al. (2008) contend that the offer of financial compensation convinces the customer that the firm is exerting an effort to restore the relationship. However, the findings of Roschk and Gelbrich (2014) could be due to two other design features of the experiment. First, the compensation could have been deemed to be extremely high. Second, the lack of attention failure included a time delay, which could have been interpreted as instigating a utilitarian loss. Therefore, further research is needed to clarify the efficacy of apologies following failures that instigate different types of losses.

Crisis management research indicates that apologies are only effective when the firm is perceived to be responsible for the crisis (Racine et al., 2020). Similarly, trust research indicates that apologies may be more effective when there is evidence of the transgressor's guilt (Kim et al., 2004). Within the service recovery context, Kelley et al. (1993) propose that the efficacy of the apology is contingent on the failure severity and the manner in which the apology is provided. Consistent with this perspective, Basso and Pizzutti (2016) contend that apologies are particularly effective in double deviation situations. Johnston and Fern (1999) provide evidence that customers expect managerial apologies in double deviation scenarios, whereas modest apologies appear to suffice following single deviations. Together, these insights indicate that the effects of apologies may be contingent on the severity of the failure and the extent of blame attributed to the firm. Moreover, customers might expect a superior apology following severer transgressions.

3.4.2.3.4 The Presentation of Apologies

Within the crisis management literature, evidence indicates that the way in which an apology is framed (e.g., hopeful framing) can influence customer emotions and behavioural intentions (Xiao et al., 2020). Research into apologies following corporate wrong doings also indicates that the gender of the apologiser, the type of transgression, the responsibility of the apologiser and the gender of the victim influence the effects of corporate apologies on customer forgiveness (Wei and Ran, 2019). Sengupta et al. (2018) provide empirical evidence that customers from eastern cultures display higher levels of perceived informational justice and recovery satisfaction when apologies are provided by employees with higher status (i.e., managers), in a public setting. Furthermore, Walsh et al. (2022) conduct a set of experiments to examine the implications of the way in which apology e-mails are crafted. The empirical studies indicate that personalised salutations and photo-identification of the employee negatively interact to reduce rapport and recovery satisfaction. These findings indicate that the firm may be able to control the extent of efficacy of apologies and that the effects of apologies may be bounded by context.

Within the service recovery context, Roschk and Kaiser (2013) provide evidence that the empathy, intensity and timing of an apology increase customer satisfaction ratings, while weak apologies are no more effective than the absence of apology. Similarly, Pacheco et al. (2019) provide empirical support for the notion that expedient apologies can rebuild trust to a greater extent than delayed apologies. Antonetti et al. (2018) extend these findings by showing that apology intensity can alleviate the negative effect of DSCs on inferences of manipulative intent of the service provider. Moreover, Antonetti and Baghi (2022) provide empirical evidence that highlighting the

firm's incompetence in an area that is not the core service can enhance the perceived costliness and sincerity of the apology. However, prior research does not study how empathy of the apology impacts on extreme customer responses such as anger and revenge desires or the implications of the provision of an extremely empathetic apology. Equally, researchers call for a more detailed investigation of how empathy shapes customers' engagement with firms (Allard et al., 2020).

This section evaluated the literature concerning the effects of organisational apologies in response to service failures and argued that further research is warranted into the effect of the empathy of the organisational apology. Four insights gleaned from the literature review indicate that further empirical investigation is needed of the effect of empathy of the apology. First, apology represents one of the most mature recovery tactics in the service recovery literature, featuring in Bell and Zemke's (1987) five service recovery steps. However, results concerning the relative effectiveness of apologies appear to be mixed. Second, despite the established nature of the apology recovery tactic, the empathy of the apology receives comparatively little attention in the recovery literature, with most studies focusing on the presence or absence of apology (Roschk and Kaiser, 2013). Third, the presentation of psychological tactics appears to play a major role in determining the efficacy of such tactics and their effects on customer emotions (Lastner et al., 2016; Antonetti and Baghi, 2022). Therefore, moving beyond the study of the presence and absence of psychological tactics might shed light on the divergent findings of previous studies. Fourth, prior empirical research also indicates that apology dimensions may reduce customers' inference of negative firm motives (Antonetti et al., 2018), which indicates that the consequences of psychological tactics may extend beyond esteem. The next section includes a

discussion of procedural recovery tactics. Procedural tactics are not the focus of this research, however the research into procedural tactics can highlight variables which might influence the effect of empathy of the apology.

3.4.3 Procedural Recovery Tactics

This section provides an overview of research into the effects and moderators of procedural recovery tactics. A review of research into every procedural tactic is beyond the scope of this review. Instead, some of the key findings regarding procedural tactics are highlighted to provide insight into the consequences and boundary conditions of procedural recovery tactics. Within this review, the literature will be synthesised to highlight that procedural tactics have been explored in detail. Over the course of the discussion, it will be argued that, while studies provide extensive guidelines for the provision of procedural recovery tactics (e.g., timeliness), comparatively few studies provide clear guidelines for the presentation of psychological recovery tactics (e.g., empathy). Studies indicate that multiple procedural tactics influence customer attitudes and behaviours, including facilitation, recovery time, initiation, customer participation, employee empowerment (decentralisation), flexibility, follow-up, and process recovery communication. However, this review emphasises facilitation and timeliness, because facilitation and timeliness are highly mature recovery concepts and studies of their effects appear to provide insights concerning the potential consequences of empathy of apology.

3.4.3.1 Facilitation

Facilitation can be considered to represent the aspects of the service recovery policies and procedures, which enable the customer to easily complain to the organisation (Davidow, 2003). The literature provides consistent evidence that laborious complaint processes deter customers from complaining to the firm and increase NWOM (Richins, 1983b; Singh, 1990). This has led facilitation to be perceived to be beneficial for the organisation, despite comparatively few empirical studies of its implications. However, empirical studies of this tactic indicate that customers' facilitation preferences may vary according to their complaint objectives (Mattila and Wirtz, 2004). Facilitation can also be referred to as accessibility, which can be described as the capture or encouragement of customer complaints (Smith et al., 2009). Accessibility can be linked to multiple positive customer outcomes such as procedural justice perceptions (Karatepe, 2006a) and self-perceived status (Sparks and McColl-Kennedy, 2001). Further evidence that customers value firms' accessibility can be found in studies which show that recovery transparency positively influences bystanding customers' purchase and PWOM behaviours in the online context (Hogreve et al., 2019).

Decentralisation, which can also be labelled as employee empowerment, can be considered to reflect a higher extent of autonomy of employees, which enables employees to enact recovery without asking for permission (Santos et al., 2019). Boshoff and Leong (1998) provide evidence that customers prefer recoveries to include a higher level of employee empowerment in service recovery. Flexibility, described as the customisation of responses to the needs of individual complaint cases (Sparks and McColl-Kennedy 2001), also appears to influence customer satisfaction with complaint handling (Sparks and McColl-Kennedy, 1998). However, research indicates that accessibility and timeliness can substitute for decentralisation (Santos et

al., 2019) and that the main effect of flexibility can be drowned out by recovery outcomes and concern (Sparks and McColl-Kennedy, 2001). An alternative approach to decentralisation may be to initiate the recovery as early as possible (Xu et al., 2014) or to engage in recovery 'proactivity', whereby the firm anticipates a service failure and initiates actions to limit the impact of service failure (Nazifi et al., 2021a, p. 208). Indeed, Raki et al. (2020) note that proactive approaches could reduce the inconvenience and uncertainty faced by customers, which could enhance customers' emotional wellbeing. Overall, evidence indicates that procedural recovery tactics aimed at identifying and resolving failures as early as possible can afford efficiency gains for customers and limit the negative emotional consequences of service failure.

Customers' responsiveness to accessibility leads researchers to consider customers' preferences for communication and involvement in different phases of the recovery journey. To respond to this issue, studies include 'voice', which captures the extent to which the firm allows the customer to provide input into the decision (Bies and Shapiro, 1988). Voice may indicate that the outcome is closer to an individual's desired outcome and may raise customers' self-perceived status (Lind et al., 1990). Studies within and outside the service recovery literature demonstrate the positive influence of voice on perceived flexibility of the process (Karande et al., 2007) and outcome evaluations (Bies and Shapiro, 1988). Studies also provide evidence of complex interactions between voice, flexibility and concern (Sparks and McColl-Kennedy, 2001) and between voice and distributive outcomes (Folger, 1977).

Customer participation in service recovery can be defined as "the degree to which the customer is involved in taking actions to respond to a service failure" (Dong et al., 2008, p. 126). Customer participation appears to influence perceived justice,

recovery satisfaction, repatronage intentions (Roggeveen et al., 2012; Xu et al., 2014), perceived outcome favourability, relationship-based self-esteem (Guo et al., 2016) and self-perceived ability and intention to co-create (Dong et al., 2008; Dong et al., 2016). Co-creation also appears to alleviate counterfactual thinking, anger and negative eWOM (Tran et al., 2021). Previous studies elucidate potential boundaries to the effects of co-creation, including the customer's perception that they can recover the failure (Zhu et al., 2013), blame attributions (Dong et al., 2008), the locus of recovery initiation (Xu et al., 2014), and the perceived abdication of recovery responsibilities (Roggeveen et al., 2012). Research outside of the service recovery context indicates that customer participation outcomes may be moderated by the interplay between the customer-firm relationship quality and customers' role ambiguity (Najafi-Tavani et al., 2022).

Overall, notwithstanding that few empirical studies assess the effects of different methods to solicit customer complaints, studies of co-creation provide strong evidence that customers value their inclusion in service recovery. The literature also indicates that customers may be sceptical of firms' motives for customer inclusion. Given that apologies do not appear to indicate the abdication of recovery responsibilities, these studies provide further support that apologies may be effective recovery tactics.

3.4.3.2 Timeliness

A multitude of definitions of timeliness can be found in the service recovery literature. However, one definition describes timeliness as "the speed with which an organization responds to or handles a complaint" (Cambra-Fierro et al., 2015b, p.117). This definition appears to be consistent with multiple manipulations of timeliness in the

literature. Studies indicate that service recoveries which are shorter in duration lead to higher ratings of recovery quality, satisfaction and repatronage intentions (Swanson and Kelley, 2001a), and lower ratings of NWOM intentions (Swanson and Kelley, 2011b). Customers appear to be able to evaluate the time taken by the service provider to respond to complaints (Tax et al., 1998). Accordingly, timeliness appears to influence procedural justice (Smith et al., 1999; Liao, 2007), service recovery satisfaction (Boshoff, 1997; Tax et al., 1998), delight (Estelami, 2000) and behavioural intentions (Wirtz and Mattila, 2004). Indeed, evidence suggests that timeliness may be more strongly related to customer profitability than monetary compensation and recovery communication (Cambra-Fierro et al., 2015b). Moreover, empirical evidence suggests a negative link between compensation expectations and timeliness (Hogreve et al., 2017). Timeliness can also be described as a basic requirement, which predominantly influences negative emotions (Chebat and Slusarczyk, 2005).

However, some studies report that timeliness has an insignificant effect on repurchase intentions and WOM activity (Davidow, 2000; Blodgett et al., 1997). In a similar vein, Miller et al. (2000) find that a speedy identification of the problem does not affect perceptions of problem resolution. Similarly, researchers contend that initial response time does not exert significant effects in the online context (Einwiller and Steilen, 2015; Fan and Niu, 2016). However, this notion has been challenged by studies that show a positive effect for complaint satisfaction (Istanbulluoglu, 2017) and a negative effect for virality of negative WOM (Herhausen et al., 2019).

Some studies report that a 15-minute recovery delay influences satisfaction and behavioural intentions for restaurant failures (Smith et al., 1999; Wirtz and Mattila, 2004). However, follow-up research indicates that customers are indifferent to

timeliness when recoveries take place within the first couple of days (Pacheco et al., 2019) and even the first week following the service failure (Hogreve et al., 2017). The divergence in findings of these studies might be explained by the extent to which the focal service experience is still in progress. When the focal service experience has concluded, studies indicate that customers' expectations of timeliness span a 'time zone of tolerance', such that customers are sensitive to recovery times that exceed a range of acceptable recovery times (Hogreve et al., 2017).

Research into the moderators of timeliness expectations indicate that customers' personal characteristics (Mattila and Mount, 2003) and channel choice (Istanbulluoglu, 2017) may lead to divergent results. Studies also provide evidence that timeliness may be more effective at eliciting satisfaction for process failures than failures that impose more tangible losses (Gilly and Gelb, 1982; Boshoff, 1997). However, more recent research indicates that timeliness affords both social and economic benefits (Cambra-Fierro et al., 2015b).

Overall, a multitude of field and experimental studies demonstrate a positive link between timeliness and satisfaction (Tax et al., 1998; Smith et al., 1999; Liao, 2007). Research indicates that the benefits of timeliness may be both utilitarian and symbolic, which might explain why the timeliness tactic remains robust across a myriad of service contexts. Researchers also note a zone of tolerance for timeliness, whereby extremely timely recoveries may be superfluous. This suggests that response functions for recovery tactics that do not primarily offer utilitarian benefits may also display non-linear patterns. In the next section, multiple moderators of the effects of recovery tactics are discussed to clarify why identical recovery strategies can lead to divergent outcomes.

3.5 Moderators of the Effects of Recovery Tactics

In this section, the discussion turns to the role of moderators of the effects of recovery tactics. Multiple meta-analyses provide consistent evidence that moderating variables can exert significant influences on the effects of recovery strategies (Orsingher et al., 2010; Van Vaerenbergh et al., 2018). Therefore, the effects of moderators will be considered to develop an overview of variables which should be measured or controlled in the empirical investigation. This will bolster the case for the rejection of alternative explanations for the effects within the conceptual model. In what follows, three forms of moderator will be reviewed, including organisational and employee factors, customer characteristics, customer perceptions and the complaint handling environment. The first two sections concern moderators within the locus of the actors involved in the service recovery, whereas the latter factor concerns a broader range of contextual factors.

Although methodological moderators appear to exert a significant influence on the effect sizes of key variables within the model of service recovery responses in prior research (De Matos et al., 2007; Gelbrich and Roshck, 2011; Van Vaerenbergh et al., 2018), these are not discussed in detail here. This is because the focus is on understanding the theoretical concepts within the service recovery model. Indeed, the focus on methodological moderators such as sample size, experiment vs. survey data, student vs. population data appears to be a concern predominantly of meta-analyses (e.g., Orsingher et al., 2010), rather than papers that aim to extend the conceptual model of service recovery responses.

The organisational and employee factors were selected, as these appear to feature in multiple studies and consistently influence recovery effectiveness. Customer features are also incorporated in consideration of the early complaining literature, which focuses on whether customer actions and responses could be predicted by demographic characteristics. Moreover, multiple meta-analyses incorporate, in isolation or in combination, theoretical concepts concerning the prior experience of the customer (e.g., De Matos et al., 2007) or a contextual variable such as the industry (Gelbrich and Roschk, 2011) or online vs. offline nature of the service (Van Vaerenbergh et al., 2018). Given that these variables are often incorporated in meta-analyses and feature in conceptual models of service failure responses, they appear to be the dominant moderators considered in the service recovery literature. Furthermore, studies of the effects of compensation on customer satisfaction and behaviour frequently control for the effects of customer characteristics, prior experience variables and the characteristics of the service environment (e.g., Noone et al., 2012; Gelbrich et al., 2015) either by incorporating measures within regression analyses or standardising these variables through the experimental protocol.

3.5.1 Organisational and Employee Factors

This section synthesises empirical studies of the organisational and employee factors that affect recovery efficacy. These factors relate to the differentiating features of organisations and the characteristics of employees that can strengthen or inhibit recovery efforts. Morgeson et al. (2020) provide compelling evidence based on data from over 300,000 customers that lower correlations can be observed between complaint handling and customer loyalty intentions for monopolists and firms facing

lower levels of industry competition. This provides further support for Hirschman's (1970) theory that customers of monopolies are less likely to defect following poor service. Moreover, Morgeson et al. (2020) provide evidence of a stronger correlation between complaint handling and loyalty for luxury goods (vs. necessity goods), services (vs. products) and for offerings that customers expect to be highly customised. These findings provide strong evidence for the notion that customers with higher expectations will respond to successful recovery with higher loyalty.

Evidence also indicates that organisational structure can influence recovery outcomes. Homburg and Fürst (2007) present the concept of 'defensive organisational behaviour', which pertains to the avoidance and denial of complaints, unwillingness to pass on complaint information, and poor handling, analysis and integration of complaint information into organisational decision-making. Research suggests that employees' willingness to communicate complaints can be inhibited by employee empowerment and customer unfriendliness, while workload and supervisor support can raise employees' willingness to report complaints (Walsh et al., 2015). As regards complaint handling, studies indicate that role stressors can negatively impact employees' recovery performance (Ashill et al., 2009). Rod et al. (2008) provide evidence that role overload influences recovery performance. However, Karatepe (2006b) provide evidence that role overload and role conflict do not influence recovery performance, whereas role ambiguity appears to inhibit recovery performance.

In contrast, researchers contend that organisations can encourage service recovery performance by fostering the organisational commitment of employees and rewarding employees for successful recovery (Boshoff and Allen, 2000). Moreover, Jerger and Wirtz (2017) provide evidence that employees of firms with a strong service

climate are less likely to display diverse emotional responses and to alter their provision of compensation depending on the status of the customer. This indicates that employees may provide more reliable recoveries when organisations provide sufficient guidance and training in service performance. These findings are also reflected in studies of customer reacquisition, which indicate that formal reacquisition policies and failure tolerant organisational cultures can be conducive to customer reacquisition (Vomberg et al., 2020).

Employees' customer orientation (Choi et al., 2014) and emotional intelligence (Lee et al., 2013) appear to positively influence recovery performance. Furthermore, employees' trait competitiveness and intrinsic motivation appear to promote recovery performance (Karatepe, 2006b). Studies of the influence of employees' cultural orientation indicate that employees from high power-distance cultures are less likely to reward customers' displays of intense anger with large amounts of financial compensation, due to their sensitivity to the appropriacy of emotional displays (Glikson et al., 2019). Thus, the literature consistently demonstrates that characteristics of the organisation and employees can influence recovery performance.

3.5.2 Customer Characteristics

The service recovery literature appears to indicate customer characteristics influence service recovery outcomes. For example, Martin et al. (2018) provide empirical support for the notion that entitled customers prefer apologies that emphasise the superiority of the customer. Power motivation can be described as an individual's "*chronic desire to strive for and retain power*" (Wong et al., 2016, p. 65). Wong et al. (2016) provide evidence that customers with high power motivation display a preference for

compensation that is provided in a way that enhances the customer's perceived status. Past studies also indicate that customers' perception of their power can influence their appraisals in service failure and recovery scenarios. Customers' perceived power appears to increase customers' perceptions of their coping potential and decrease customers' severity perceptions, thereby discouraging revenge behaviours (Sembada et al., 2016). Nevertheless, powerful customers also appear to be more vengeful following severe failures (Grégoire et al., 2010; Sembada et al., 2016).

Multiple studies find that cultural orientation can influence customers' preferences for recovery tactics (e.g., Wong, 2004; Wang and Mattila, 2011; Patterson et al., 2006). Indeed, findings indicate that customers' responsiveness to status-enhancing recovery tactics differs depending on power-distance orientation and individualist vs. collectivist orientation. Gender is also thought to impact on recovery outcomes, as female customers appear to display a higher level of responsiveness to procedural elements (Iacobucci and Ostrom, 1993; McColl-Kennedy et al., 2003; Mattila, 2010) and greater consideration of the affective displays of service employees (Mattila et al., 2003). More recently, Istanbuluoglu and Sakman (2022) provide evidence that customers with lower propensity to trust are more likely to be responsive to firms' explanations in recovery on social media. These findings suggest that a recovery tactic or resource will be more effective when customers are more sensitised to the absence of the recovery tactic or resource.

3.5.3 Quality Perceptions and Relationship Characteristics

Previous studies examine the effect of perceived service quality on the consequences of service recovery. The product failure literature indicates that a strong brand

reputation mitigates the negative effects of failure incidents (Liao and Cheng, 2014). Moreover, brand reputation also appears to increase satisfaction with service recovery, repatronage and WOM intentions (Huang, 2011). However, Brady et al. (2008) provide evidence that while the decrease in satisfaction ratings from the pre-failure phase to the post-failure phase may be steeper for high equity brands, customers' satisfaction ratings generally tend to be higher for high equity brands.

Previous studies consider the role of the customer's relationship with the service provider. Hess et al. (2003) contend that customers' expectations of relationship continuity will encourage customers to consider the potential gains from future transactions, thereby reducing customers' recovery expectations. In this regard, there are some studies that indicate that successful recoveries elicit greater benefits for committed customers (Mattila, 2004) and that poor recoveries can be less damaging for customers with higher levels of experience with the firm (e.g., Tax et al., 1998; Grégoire and Fisher, 2006; Evanschitzky et al., 2011; Migacz et al., 2018). Similarly, one study indicates that the loyalty of customers with weak service provider relationships is more influenced by their perceptions of the firm's effort to recover (Cambra-Fierro et al., 2015a).

In contrast, the involvement of relational customers may lead to heightened recovery expectations (Kelley and Davis, 1994), as customers may feel that firms should provide high-quality recoveries to maintain the customer-firm relationship. One definition of trust considers trust as "a willingness to rely on an exchange partner in whom one has confidence" (Moorman et al., 1993, p. 315). Grégoire and Fisher (2008) contend that strong relationship customers experience a violation of trust and therefore, display perceived betrayal and retaliatory behaviours, following poor service

recoveries. This effect has been labelled the 'love becomes hate effect' and empirical studies of severe failures appear to reflect this (Grégoire et al. (2009). Research into negative events in customer-service provider relationships also appear to echo these findings (Harmeling et al., 2015; Haenel et al., 2019).

3.5.4 The Complaint Handling Environment

Studies indicate that the presence of other customers during service failure can influence blame attributions (Albrecht et al., 2016). Moreover, the presence of other customers during recovery appears to influence recovery perceptions (Zhou et al., 2013, 2014; Albrecht et al., 2019). Baker et al. (2008) also provide evidence that customers evaluate the characteristics of other customers present to appraise service failure. Bitner (1990) provides evidence that the organisation of the work environment can alter stability perceptions. Da Rosa Pulga et al. (2019) provide evidence that customers' post-recovery trust ratings are higher in environments characterised by higher social interaction. Moreover, evidence indicates that customers' perceptions of the attractiveness of the frontline employee and gender of the employee intercede to influence post-recovery attitudes (Li et al., 2022).

The location of recovery appears to influence customers' perceptions of the firm (Van Noort and Willemsen, 2012; Schamari and Schaefers, 2015; Grégoire et al. 2018). Moreover, studies into online complaints indicate that other consumers' comments can influence customers' attributions (Weitzl et al., 2018) and behavioural intentions (Schaefers and Schamari, 2016). Equally, other customers' purchase intentions (Van Vaerenbergh et al., 2013), WOM intentions (Mattila et al., 2014) and relationship with the service provider (Shin et al., 2018) appear to be influenced by

recovery outcomes. Recoveries also appear to influence prospective customers' perceived trustworthiness of the provider, WOM (Hogreve et al., 2019) and purchase intentions (Hutzinger and Weitzl, 2021). These studies indicate that co-present customers and the social context of the recovery may lead to diverse consequences.

Prior research has provided a wealth of information concerning how the microeconomic complaint handling environment influences customers' recovery preferences and the influence of recovery on customer behaviour. However, few contributions have examined how macroeconomic conditions alter the effects of recovery efforts. An exception is a study of the interaction between the state of the economy and service recoveries on customers' repurchase behaviour conducted by Kumar et al. (2014). The findings suggest that as the state of the economy improves, customers place a higher emphasis on the firms' past recovery performance in their purchase decisions. Overall, this section provided a synthesis of the microeconomic factors that appear to influence recovery. The review highlights how customer characteristics, perceptions of quality, brand and the relationship between the customer and the service provider can influence recovery outcomes. Moreover, the review illustrates how the environmental context of the failure including the recovery location and co-present customers can alter recovery outcomes.

3.6 Concluding Remarks

This section addressed the empirically tested recovery tactics to provide support for the notion that apology and compensation are mature and frequently researched recovery tactics. By integrating the insights of multiple service recovery studies, this review provided evidence of the positive effects of apology and compensation on

customers' service recovery evaluations, emotions and behavioural responses. The literature review also highlighted ways to advance extant understanding of the roles played by monetary overcompensation and empathy of the apology in service recovery. First, the effect of combining overcompensation with psychological tactics was highlighted as a potential research avenue. Indeed, most prior studies of the effects of overcompensation appear to focus on the examination of multiple gradations of compensation, without altering the effects of other tactics. Second, the literature review revealed very few studies into the effects of the dimensions of apologies on service recovery outcomes. Third, the literature review established that research was lacking in terms of the understanding of the interactions and trade-offs between monetary overcompensation and empathy of apology.

Following the review of service recovery tactics, a multitude of organisational and employee characteristics, customer characteristics and perceptual variables were evaluated to provide an overview of the key boundaries to organisational recovery strategies. This will aid in the understanding of how to test the effects of recovery tactics, by highlighting potential boundary conditions that could lead to spurious effects. Chapter 4 entails a discussion of post-recovery tactics, followed by a synthesis of extant insights concerning the mechanisms driving post-failure behaviours and the behavioural consequences of service recovery.

CHAPTER 4: LITERATURE REVIEW: THE POST- RECOVERY PHASE

4.1 Introduction

The previous chapter synthesised extant insights concerning the service recovery tactics available to the firm in the recovery phase. Therefore, the literature review now turns to the tactics and responses involved in the post-recovery phase. The final phase of the service recovery journey- the post-recovery phase- concerns the phase after the recovery effort. Research indicates that the post-recovery phase can represent a turning point in the customer relationship (Joireman et al., 2013). However, service failure and recovery studies appear to focus on the recovery phase, which has led prominent researchers in the field to call for further research that examines customer responses over time and adopts a journey perspective (Grégoire and Mattila, 2021). Chapter 4 begins with a brief review of the initial studies conducted into examining the effects of post-recovery tactics in Section 4.2. This is necessary to provide an indication of the extent of research into the development of tactics for the post-recovery phase.

The structure of the latter half of Chapter 4 echoes the main service recovery research streams in the post-recovery phase, which seek to model the customer response process. Thus, Section 4.3 discusses the effect of service recovery on justice perceptions, satisfaction, outcome favourability, the recovery paradox and customer emotions. This will provide an overview of some of the most adopted theoretical models to explain service recovery responses. The section begins with cognitive responses, which featured in many of the early service recovery studies. This leads into a discussion of how customer emotions have been incorporated into the model of post-recovery responses. The review will highlight how emotions appear to play a central role in models of customers' responses to failed recovery attempts. Section 4.4 then discusses the implications of service recovery for the firm. In so doing, the review will

highlight that most service recovery research focuses on customer perceptions and intentions, rather than financial metrics. Finally, the chapter will close with the presentation of concluding remarks (Section 4.5).

4.2 Post-Recovery Tactics

Post-recovery studies focus on how firms can rectify the damaged caused following a poor response to an initial complaint, this could be due to the firm responding in an ineffective way or failing to respond (Grégoire et al., 2018). These studies often recruit samples of customers who have complained to third-party websites about their experiences, as these customers often report having requested a recovery without receiving one (e.g., Grégoire et al., 2019). Therefore, post-recovery studies tend to focus on the interactions and customer responses after the initial recovery tactics are provided, with some studies measuring customer responses weeks after the initial complaint was made (e.g., Grégoire et al., 2009).

Few service recovery studies consider the need to recover employees after service failure (Michel et al., 2009; Van Vaerenbergh and Orsingher, 2016), notwithstanding that employees' perceptions of the organisation appear to impact on service recovery behaviours (Bowen and Johnston, 1999; Maxham and Netemeyer, 2003). These approaches would appear to be particularly relevant in the post-recovery phase, as it might be anticipated that firms can devote more time to assessing and responding to employees' responses after the failure episode. Initial empirical evidence indicates that service recovery training and support can raise frontline employees' job satisfaction, organisational commitment (Babakus et al., 2003) and lower employees' intentions to quit (Boshoff and Allen, 2000). Given the low number of empirical studies

into the employee consequences of service recovery, the literature into employee recovery is not discussed in the literature review.

Recovery tactics that have been explored in the service recovery phase can also be applied in the post-recovery phase. Therefore, a substantial portion of the post-recovery literature focuses on how to apply traditional service recovery tactics to improve post-recovery outcomes. The recovery tactics that have been included in multiple studies of the post-recovery phase include compensation, apologies, explanations and promises. Given that these tactics have been discussed in detail in Chapter 3, this chapter focuses on the tactics that apply specifically to the post-recovery phase, which have received very little research attention in the literature. These tactics include follow-up and process recovery communication.

In the post-recovery phase, the firm can conduct follow-up, in which an employee contacts customers who have already complained to obtain feedback on the extent of service recovery success and to enable the customer to voice their opinions (Bell and Zemke, 1987). Follow-up appears to be operationalised as firms' efforts to solicit customer feedback after a recovery has been implemented (Mostafa et al., 2015). Therefore, follow-up appears to be distinguishable from proactivity, in which firms communicate with customers and manage failures in advance (Nazifi et al., 2021a). Equally, follow-up appears to differ from facilitation such as encouraging complaints (Dewitt and Brady, 2003) and soliciting customers' input during the recovery phase (Sparks and McColl-Kennedy, 2001). Service recovery studies also indicate that follow-up may contribute to customer delight (Johnston and Fern, 1999). Empirical support for the impact of follow-up appears to be mixed. Mostafa et al. (2014) do not provide evidence of a significant effect of follow-up on satisfaction with service

recovery, whereas Mostafa et al. (2015) provide empirical evidence that follow-up enhances customers' procedural justice perceptions, satisfaction with service recovery and perceptions of the firm's corporate image.

The firm may choose to provide feedback to the customer, by providing process recovery communication. Process recovery communication can be considered to involve notifying customers of the measures taken by the organisation to prevent the future recurrence of failure (Van Vaerenbergh et al., 2019). Van Vaerenbergh et al. (2012) contend that process recovery communication occurs predominantly after recovery, due to the time required to achieve process improvements. However, crisis management studies indicate that when failures are severe, process improvement information may be used as an initial recovery tactic (Rasoulilian et al., 2017; Xiao et al., 2020). Van Vaerenbergh et al. (2012) provide evidence that process recovery communication can raise customers' satisfaction ratings, repurchase intentions and WOM intentions. This literature review indicates that there is a sparsity of evidence of the impact of post-recovery tactics on customers' emotional, cognitive and behavioural responses. Moreover, empirical evidence indicates that when the effects of more established recovery tactics are measured in tandem with post-recovery tactics, traditional service recovery tactics appear to exert a greater influence over customer responses (Mostafa et al., 2014). Therefore, the findings concerning post-recovery tactics appear to be less conclusive. Nevertheless, when considered in combination with the findings concerning credibility feedback and explanations in the recovery phase, these studies provide further support for the notion that what employees say to customers after failures influences customer behaviour.

4.3 The Customer Consequences of the Service Recovery Phase

Chapter 3 illustrates the proliferation of the justice framework as an explanatory mechanism for the relationship between service recovery strategies and customers' transaction-specific satisfaction with service recovery. Moreover, service recovery satisfaction appears to be the most researched recovery response in the literature (Khamitov et al., 2020). Therefore, the justice framework and the relationship between perceived justice and satisfaction will be discussed first, before considering alternative mediators of the effects of recovery strategies on satisfaction. Following this, the recovery paradox will be addressed, to gain insight as to the likelihood that service recovery elicits more favourable responses than failure-free service. Throughout the discussion, extant contributions will be integrated to conclude that the ability of recovery to enhance satisfaction through raising fairness perceptions receives consistent empirical support in the literature. This will feed into the discussion of studies that have introduced the concept of customer emotions into models of service recovery tactic effects. This section will bring to light the dominant role played by negative emotions in models explaining responses to unsuccessful recoveries.

4.3.1 Justice Perceptions and Satisfaction

Empirical evidence indicates that disconfirmation and justice perceptions appear to play complementary roles in the explanation of the effects of recovery tactics (Smith et al., 1999). A multitude of service recovery studies provide empirical evidence of the positive effects of recovery tactics on tripartite justice perceptions (e.g., Blodgett et al., 1997; Liao, 2007; Gelbrich and Roschk, 2011a). Past studies also provide empirical evidence that justice perceptions raise service recovery satisfaction (Mattila and Patterson, 2004; Smith et al., 1999; Liao et al., 2007) and repatronage intentions and

reduce NWOM intentions (Blodgett et al., 1993; Blodgett et al., 1997). Moreover, the presence of distributive and interactional justice appears to enhance customer intentions to complain to the firm in the future (Voorhees and Brady, 2005). A meta-analysis of the roles of justice dimensions appears to indicate that distributive justice exerts the strongest effect on transaction-specific satisfaction, WOM and loyalty, whereas procedural justice exerts the weakest effect (Gelbrich and Roschk, 2011a).

Satisfaction with service recovery features frequently as a central variable in models of service recovery responses (Roschk and Gelbrich, 2014; Gelbrich et al., 2015). There is evidence of the positive influence of satisfaction with service recovery on overall satisfaction evaluations (Maxham and Netemeyer, 2002b; Smith and Bolton, 1998), repatronage (Maxham and Netemeyer, 2002b; Wirtz and Mattila, 2004; Huang, 2011) and PWOM (Maxham and Netemeyer, 2002b; Huang, 2011) and a negative relationship between satisfaction with service recovery and NWOM (Weun et al., 2004; Wirtz and Mattila, 2004). However, a meta-analysis of the influence of satisfaction with complaint handling indicates that satisfaction with complaint handling drives WOM intentions, whereas repatronage appears to be driven by overall satisfaction (Orsingher et al., 2010).

Oliver and Swan (1989a, b) find that perceptions of equity are related with experiences of positive inequity, indicating that customers may display biased fairness perceptions. Therefore, outcome favourability might present an alternative mechanism of the effects of recovery tactics. Outcome favourability can be described as the customer's perception that the ratio of the outcome to the customer's input is favourable (Hazée et al., 2017). This may reflect the comparison of the customer's current experience with previous experiences or the experiences of other individuals

(Adams, 1965). Studies appear to link outcome favourability perceptions with justice perceptions (Guo et al., 2017), recovery satisfaction and repatronage intentions (Hazée et al., 2017). However, the relative effects of outcome favourability and perceived justice are not compared.

Overall, the literature review highlights that a plethora of studies indicate that justice perceptions inform transaction-specific satisfaction (e.g., Del Río-Lanza et al., 2009; Liao, 2007) and that transaction-specific satisfaction drives customers' WOM intentions (Maxham, 2001; Orsingher et al., 2010). In contrast, the role of outcome favourability within the model of customer responses appears to be unclear and receives comparatively less research attention than perceived justice. Moreover, the relative strength of this mediational path does not appear to be understood, as studies exploring outcome favourability do not appear to measure justice perceptions (Hazée et al., 2017). However, satisfaction with service recovery permeates models of service recovery responses, often featuring as a downstream variable in service recovery models. Given that satisfaction with service recovery plays a central role in explaining customer responses, the discussion moves to understanding the nature of satisfaction with service recovery following recovery encounters. Therefore, the next section evaluates the evidence supporting the existence of the service recovery paradox to understand the extent to which satisfaction with service recovery can fluctuate after failure and recovery episodes, as well as the potential for recovery encounters to change customers' evaluations of firms.

4.3.2 The Service Recovery Paradox

The 'recovery paradox' can be considered to denote a customer post-recovery satisfaction evaluation, which is superior to their pre-failure satisfaction evaluations (De Matos et al., 2007) or the satisfaction ratings of customers who have not experienced a failure (McCollough et al., 2000). In consideration of the relationship between satisfaction and repatronage intentions, it could be argued that the recovery paradox might yield an increase in repatronage intentions (Smith and Bolton, 1998). Moreover, customers' trust in organisations might be raised by positive service recovery experiences, because customers' awareness of the integrity of the service provider might increase (Magnini et al., 2007; Basso and Pizzutti, 2016).

Prior studies display mixed findings concerning the likelihood of the prevalence of the recovery paradox (de Matos et al., 2007). For example, Maxham and Netemeyer (2002a) provide empirical support for the recovery paradox in terms of customers' satisfaction ratings. However, McCollough et al. (2000) and Maxham (2001) do not find evidence in support of the recovery paradox. Moreover, a multi-industry study indicates that high-quality service recoveries do not yield higher ratings for repurchase intent or corporate image (Andreassen, 2001).

Magnini et al. (2007) propose that the occurrence of the recovery paradox is contextually bounded, such that the recovery paradox is more common following minor, uncontrollable, unstable, single deviations. Nevertheless, divergent findings might arise from different operationalisations of the recovery paradox, the service context under study and the use of longitudinal vs. cross-sectional approaches (De Matos et al., 2007). Overall, a meta-analysis conducted by de Matos et al. (2007)

indicates that the recovery paradox applies to satisfaction, but not to repatronage intentions, WOM and corporate image.

In consideration of previous research into the recovery paradox, the recovery paradox appears to be most likely to occur when the failure is moderate, unstable and difficult to prevent, and the firm provides a high-quality recovery. Therefore, the recovery paradox appears to be an unlikely consequence of double deviation recovery. So far, this chapter has elucidated the commonly adopted theoretical models to explain customers' response processes following service recovery. Previous meta-analyses of the effects of recovery strategies indicate a large portion of the literature relies on models that centre around justice perceptions and satisfaction. Arguably these responses might be best placed to explain moderate failures, whereas more severe instances of dissatisfaction might engage intense emotions such as anger and rage (Grégoire et al., 2010). Therefore, studies of unsuccessful recovery appear to centre around modelling negative emotions and their behavioural outcomes. A small number of studies also incorporate positive and negative emotions as responses to perceptions of justice. The emotional consequences of service recovery may be particularly relevant to understanding the trade-offs between tangible and psychological recovery tactics and therefore, emotions are discussed in the following section.

4.3.3 Blame and Anger

This section integrates evidence of the pivotal role played by customer emotions in the post-recovery phase. First, studies of emotion are incorporated to provide the context of double deviation studies, which tend to focus on negative emotions. Bagozzi et al. (1999, p. 184) define emotion as a 'mental state of readiness' arising from cognitive

appraisal, which can be associated with physiological processes and physical expression and can drive affirmative or coping behaviours. Consistent with this definition, service recovery researchers consider the intensity of emotion to be contingent on customers' primary appraisal of the event, as well as the consideration of the controllability of the failure and how the service provider "*could have done better*" (McColl-Kennedy and Sparks, p. 262). The experience of negative emotions appears to encourage actions to alleviate emotions (Bagozzi et al., 1999; Gelbrich, 2010) and therefore, understanding customers' emotional responses to recovery encounters may improve extant understanding of the behavioural implications of service recovery.

Empirical evidence indicates that customers display lower service recovery satisfaction and engage in more systematic processing of recovery encounters when the service failure triggers negative emotions (Smith and Bolton, 2002). However, the causal order of cognitive and affective evaluations is not clarified in Smith and Bolton's (2002) study. Despite the contention that emotions might bias equity perceptions (Varela-Neira et al., 2008), a recurrent theme of service recovery models is that emotions appear to be triggered by customers' evaluations of service recovery justice (Mattila et al., 2014; Schoefer and Ennew, 2005), as well as the service provider's control over outcomes (Dewitt et al., 2008). Indeed, some researchers reason that customers form emotions that are appropriate to the situation (Chebat and Slusarczyk, 2005) and therefore, indicate an understanding and evaluation of the situation.

Schoefer and Ennew (2005) contend that service recoveries that provide lower levels of the three justice dimensions are associated with lower levels of positive emotions and higher levels of negative emotions. Chebat and Slusarczyk (2005) provide empirical evidence that while distributive and interactional justice raise loyalty

by the reduction of negative emotions and enhancement of positive emotions, procedural justice appears to operate through the reduction of negative emotions. Moreover, perceptions of procedural justice appear to be particularly associated with negative emotions in the mobile phone industry (Del Río-Lanza et al., 2009).

Empirical evidence also supports a relationship between emotions and post-recovery behaviours. Dewitt et al. (2008) provide evidence that customers respond to positive emotions with repeat patronage and to negative emotions with avoidance. Schoefer and Diamantopoulos (2008) find support for the notion that negative emotions drive NWOM, while both positive and negative emotions appear to be partial mediators of the relationship between perceived justice and repatronage. Together, these findings suggest that emotions mediate the effects of recoveries on subsequent repatronage and WOM intentions. Moreover, the divergent antecedents and consequences of positive and negative emotions have led to an interest in the contexts which might elicit extremely negative emotions. Therefore, double deviation studies frequently incorporate negative emotions (e.g., anger) to explain customer behaviour that can be problematic for the firm (Grégoire et al., 2010; Joirman et al., 2013).

Surachartkumtonkun et al. (2013) investigate customer rage, which pertains to *“an extreme negative emotion... accompanied by an expression (physical, verbal, and nonverbal) and potentially harmful behaviors... following a series of dissatisfactory service experiences”* (p. 177). Notably, research indicates that rage appears to be associated with perceived threats to justice needs (Surachartkumtonkun et al., 2013). Researchers provide evidence that customers can experience different forms of rage, which are associated with varying levels of aggressive and passive-aggressive behaviours (McColl-Kennedy et al., 2009). Moreover, researchers find consistent

evidence that anger incites both aggressive and passive behavioural responses (Gelbrich, 2010; Joireman et al., 2013) and that distinct emotions appear to lead to different behavioural consequences (e.g., regret vs. anger; Sánchez-García and Currás-Pérez, 2011; Bonifield and Cole, 2007).

Previous studies provide evidence that when firms fail to recover, customers are more likely to attribute blame to the firm (Maxham and Netemeyer, 2002a). Moreover, previous studies of customer revenge find blame attributions to be key antecedents of anger and revenge desires (Bechwati and Morrin, 2007; Bonifield and Cole, 2007). Given that failed recoveries appear to incite blame and that blame appears to drive anger (e.g., Folkes et al., 1987), double deviations may drive negative emotional responses (Grégoire et al., 2010). Consistent with this perspective, empirical studies indicate that rage is more likely following double and triple deviations (Surachartkumtonkun et al., 2015). Moreover, models of double deviation and double deviation recovery include blame and anger as highly associated variables and as consequences of firms' post-failure actions (Joireman et al., 2013).

Weiner (2000) contends that in addition to the assessment of responsibility, customers may experience moral outrage following the perception of negligence. Similarly, psychological studies indicate that the reasons for an individual's causation of failure inform the moral judgement of behaviour (Reeder et al., 2002; 2005). However, few researchers investigate the implications of firms' motives for customer-firm interactions (Crisafulli and Singh, 2016). Reeder et al. (2002) contend that motivational inferences enable victims to evaluate the character of offenders, as the morality of selfishly motivated actions is perceived to be low. Therefore, customers appear to display gratitude following the inference that the service provider's actions

are motivated by concern for the customer's interests (Bock et al., 2016; Lastner et al., 2016). Equally, the perception that the firm seeks to manipulate customers appears to drive anger (Antonetti et al., 2018).

Studies into post-recovery customer revenge indicate that customer revenge may be a function of such factors as attributions (Gelbrich et al., 2010), justice perceptions (Behcwati and Morrin, 2003), moral outrage (Grégoire et al., 2009), social comparisons (Bonifield and Cole, 2007) and moral disengagement (He and Harris, 2014). However, inferred firm motives appear to play a central role in models of responses to double deviations (Joireman et al., 2016). This reflects the contention that the inference of greedy motives encourages individuals to view revenge as a justifiable means of disciplining the transgressor (Crossley, 2009), which renders motive attributions particularly salient to firm-instigated failures. Grégoire et al. (2010) provide empirical evidence that if the customer perceives the firm to be motivated by greed and self-interest, then they are more likely to get angry and engage in revenge behaviours. Joireman et al. (2013) provide empirical evidence that the inference of greed can also reduce reconciliation desires (i.e., desires to rebuild a relationship, Aquino et al., 2006) and reparatory behaviours such as problem-solving complaining and third party complaining for problem resolution.

While researchers provide evidence that inferred motives are an important post-recovery appraisal, few studies examine the ability of the firm's recovery tactic to alter motive inferences (Basso and Pizzutti, 2016; Pacheco et al., 2019). Therefore, inferred motives constitute an alternative mechanism by which service recovery tactics may influence customers' revenge behaviour. Thus, inferred motives may be influential evaluations, due to their emotional salience and the potential to drive revenge

behaviours. Prior studies indicate that customers' revenge desires can lead to vindictive complaining, marketplace aggression, NWOM, online complaining for negative publicity (Grégoire et al., 2010) and vengeful switching (Bechwati and Morrin, 2003). Similarly, Karabas et al. (2019) provide evidence that revenge desires lead to lower levels of repatronage and tipping behaviours. Therefore, prior literature indicates that motives can lead to intense emotions, which drive intense behavioural responses.

Adopting a different perspective, Ringberg et al. (2007) consider emotional responses to be driven by the perceived damage of the customer-firm relationship. In this manner, emotions may constitute responses to the incongruence between the transgression and the norms of the relational context. Accordingly, empirical studies indicate that customers with strong service provider relationships can experience betrayal, which promotes retaliatory behaviours and demands for reparation (Grégoire and Fisher, 2008). Indeed, Grégoire et al. (2009) contend that after double deviations, strong relationship customers experience a longitudinal 'love-becomes-hate effect', which encourages a faster increase of avoidance intentions and a slower deterioration of revenge desires. These insights have led Joireman et al. (2016) to develop a model of customer forgiveness, which integrates evaluations of severity, causality, injustice and betrayal as antecedents to motivational inferences, which drive anger, desires and behaviours. Overall, prior research demonstrates that the relational context of the service encounter, the severity and the customer's evaluation of causality can enhance the anger response. This in turn, appears to lead to different levels of revenge and reparation desires, which feed into a multitude of diverse behavioural responses, which vary in terms of passivity and directness (Joireman et al., 2016; Grégoire et al., 2018). Moreover, the aim of the behavioural responses appears to vary in the extent to which

it focuses on achieving a complaint resolution, obtaining support from others (Gelbrich, 2010), repairing the relationship or exacting revenge against the firm (Grégoire et al., 2019).

4.4 The Implications of Service Recovery for the Firm

This literature review demonstrates the immediate impact of service recovery on customers, however, service recovery may be relevant to additional performance outcomes, such as firms' positive corporate image (Mostafa et al., 2015) and long-term performance objectives (e.g., customer retention, Glikson et al., 2019). Indeed, crisis management studies provide empirical evidence of the effect of firms' post-crisis communications on share prices (Racine et al., 2020) and firm-specific volatility of stock prices (Rasoulia et al., 2017). Moreover, customer reacquisition research demonstrates a positive effect of formal reacquisition guidelines on customer reacquisition and firms' earnings before interest and taxes (Vomberg et al., 2020).

Empirical studies indicate that firms' complaint levels can influence the stock value gap (i.e., the difference between a firm's market value and that of its best-performing competitor, Luo and Homburg, 2008). Previous studies also indicate that complaints to third party organisations may be correlated negatively with firms' idiosyncratic stock return (i.e., the excessive firm-specific cash-flows relative to the market portfolio of returns of stock exchanges, Luo, 2007, p. 76). Moreover, managerial perceptions of the organisational approach to complaint handling may be associated with market performance (Smith and Karwan, 2010). Service recovery can also be utilised to facilitate organisational learning (Johnston and Mehra, 2002). Indeed, qualitative service recovery research indicates that managers perceive

effective service recovery to drive service improvements and enhance financial performance (Johnston and Michel, 2008).

The service recovery literature appears to focus on customer outcomes, while the impact of service recovery on a firm's sales and market value remains unclear and underexplored (Van Vaerenbergh and Orsingher, 2016). Indeed, multiple studies that examine the firm-level implications of service recovery rely on managerial perceptions of organisational structure and performance and therefore, provide less conclusive evidence than studies of customer responses. Moreover, these studies do not examine the firm-level implications of double deviations. Therefore, this research focuses on the consequences of double deviation service recovery for the focal customer.

This section addressed the main consequences of service recovery that have been highlighted in previous research. The review of the post-recovery phase concluded that perceived justice and satisfaction represent the dominant response variables considered in empirical studies. Much less research considers recovery tactics associated with the post-recovery phase and different mediating mechanisms by which firms' recoveries impact on customer behaviour. Equally, most service recovery research appears to focus on customer-level, rather than the firm-level or market-level implications of recovery. One avenue that has received considerable attention concerns the study of emotional mediators of the effects of service recovery. This field appears to indicate that strong, negative emotional responses can be linked to extreme behaviours. However, research into the ways firms can alter these extreme responses after the initial recovery phase appears to be nascent. Moreover, whereas studies provide consistent evidence of an association between controllability and negative emotions, fewer studies explore the relationship between inferred motives

and negative emotions. Therefore, the literature review highlights that further research is needed into how to recover from double deviations, how to influence motivational inferences following double deviations and the effects of recovery strategies and motivational influences on emotions and behaviour. The next section provides a summary of the conclusions that can be drawn from this chapter.

4.5 Concluding Remarks

The literature review established that the service recovery phase is the most researched phase of the service recovery journey. Within the service recovery literature, empirical studies identify a plethora of recovery tactics. Researchers emphasise the need to tailor the recovery strategy to the severity of the failure, the type of resource loss associated with failure (Roschk and Gelbrich, 2014) and the nature of the customer-firm relationship (Roschk and Gelbrich, 2017). However, the review highlighted that very few studies appear to investigate the consequences of the amount and combination of utilitarian and psychological recovery tactics following double deviation. Indeed, little research addresses how to combine psychological and utilitarian compensation to achieve optimum combinations of recovery tactics (Wei et al., 2020). Equally, studies of psychological tactic presentation indicate that the way psychological tactics are worded can influence multiple behavioural consequences (Antonetti and Baghi, 2022). This indicates that empirical investigations may need to explore how to present apologies and clarify the implications of apology dimensions (Roschk and Kaiser, 2013). Moreover, Khamitov et al. (2020) note that little research has been conducted into the interactions in the post-recovery phase, while Grégoire and Mattila (2021, p. 326) call for researchers to “*integrate notions of journey*” into their

research. These insights indicate that extant understanding of how to recover from double deviation could be enhanced by studying the effective combinations of money and apology to recover from double deviation. Therefore, this research intends to address the following two research questions:

- *How does the level of empathy of the apology impact on revenge desires after double deviation?*
- *How does the combination of the level of empathy of apology and the amount of monetary compensation impact on customers' revenge desires after double deviation?*

The following aims were developed to respond to the first research question:

- *Develop a conceptual model linking empathy of the organisational apology to customer revenge desires.*
- *Empirically examine the effects of empathetic apologies on inferred motives, emotions and behavioural intentions.*

The following aims were developed to respond to the second research question:

- *To test the empirical model of the effects of empathetic apologies under varying conditions of monetary compensation.*
- *To explore the potential interactions between empathy of apology and monetary compensation.*
- *To compare the mediating mechanisms of empathy of apology and monetary compensation.*

The next section provides an explanation of the rationale that supports the conceptual model, which emerged from the review of the service recovery literature.

CHAPTER 5: CONCEPTUAL MODEL

5.1 Introduction

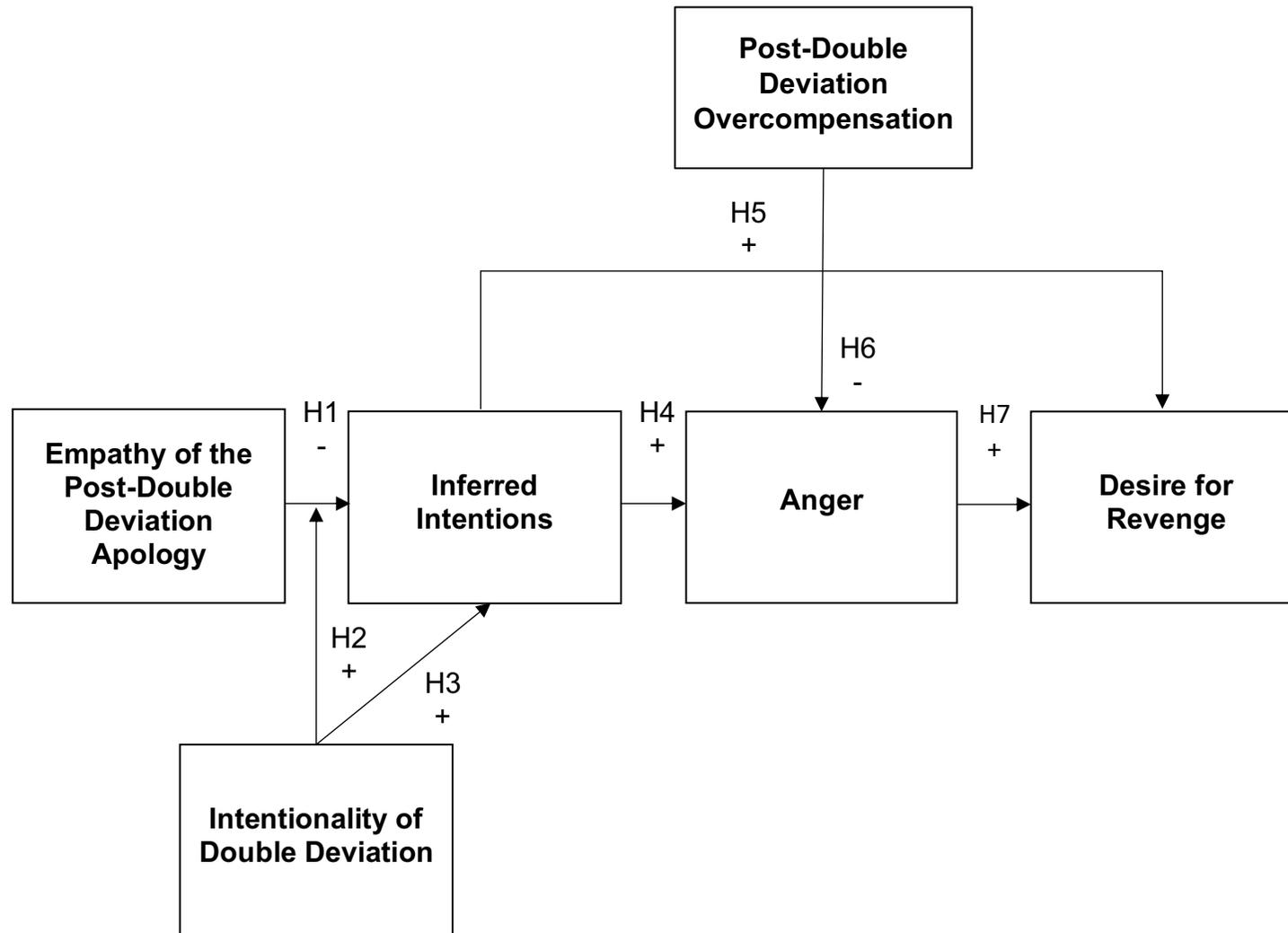
The previous chapter reviewed the prior literature concerning the pre-recovery, recovery and post-recovery phases. The review highlighted that further research into the clarification of the effects of different combinations of utilitarian and psychological recovery tactics may add to extant understanding of how to recover from double deviations. Moreover, the review highlighted how cross-disciplinary reviews draw attention to the need to develop guidelines for the inclusion of apology dimensions. The literature review established that double deviations could pose a significant threat to firm reputation (Tripp and Grégoire, 2011; Herhausen et al., 2019), whereas few service recovery studies focus on double deviation recovery strategies. The purpose of Chapter 5 is to forward a conceptual model to respond to calls for research into how to recover in the post-recovery phase (Khamitov et al., 2020). Therefore, an adapted conceptual model of service recovery from double deviation will be presented in figure 5.1.

Figure 5.1 relies predominantly on two theories that are frequently applied to study service recovery and customer revenge. The first of the two theories is attribution theory (Heider, 1958), which underpins the mediating route from empathetic apologies to revenge desires. Previous models linking double deviations to customer revenge utilise attribution theory to explain how the evaluation of the causes of negative events motivates customers to pursue revenge (e.g., Grégoire et al., 2010). The second of the theories is the matching hypothesis (Smith et al., 1999), which indicates that the effectiveness of service recovery tactics can be influenced by the extent to which the tactics match the type of failure experienced by the customer. This theory influences the way the recovery tactics are expected to impact on the mediated path to revenge.

The theory on which the conceptual model relies is discussed in detail throughout Chapter 5, by discussing each conceptual link in turn and providing a justification for the hypothesised associations. Section 5.1 integrates the literature into empathy of apology and inferred intentions to present theoretical support for a relationship between the empathy of apology and inferred intentions. Within this section, the key motives of interest in the study will be highlighted and justified. This will lead into Section 5.2, which includes a discussion of the hypothesised direct and moderating effects of the failure type. This extends previous research to incorporate the intentionality of service failure as a potentially influential post-failure attribution (Varela-Neira et al., 2014).

The discussion then addresses the latter phases of the conceptual model. Given that anger is a common emotional response to double deviations, Section 5.3 discusses the effects of inferred intentions on anger. Section 5.4 discusses the association between inferred intentions and revenge desires, which links double deviations to customer revenge. Following this, Section 5.5 introduces a hypothesised association between monetary overcompensation and anger to clarify how the outcomes might differ depending on the recovery tactics that coincide with empathetic apologies. Section 5.6 discusses the association between anger and revenge desires, which underpins models of post-double deviation desires for revenge. Section 5.7 introduces two further hypotheses concerning the nature of the relationship between empathetic apologies and inferred intentions. This will extend understanding of the consequences of the wording of apologies, by considering the nature of the effects of apology dimensions. Section 5.8 provides concluding remarks.

Figure 5.1 Conceptual Model of Customer Responses to Service Recovery from Double Deviation



5.2 Apology and Inferred Intentions

The provision of an apology might alter the perceived costs and benefits incurred by the firm. Service recovery researchers contend that apologies may convey the message that the apologizer is respectful, lacks malicious intent and intends to restore justice through self-punishment (Radu et al., 2019). Arguably, an apology may indicate that the transgressor experiences guilt, a reduction of esteem or a desire to maintain a relationship with the victim (Walster et al., 1973). Indeed, law researchers contend that the “*acknowledgement of the wrongdoing*” permeates legal definitions of apology (Carroll, 2010, p. 365), which suggests that the acceptance of blame is an integral component of an apology. Although apologies that attribute blame to an external party appear to restore trust (Kim et al., 2006), Grégoire et al. (2010) note that the double deviation context usually involves a high level of firm responsibility. Therefore, for the purpose of the current research, apologies are considered to enhance trust by implying the acceptance of responsibility for the transgression (Laer and De Ruyter, 2010), expressing regret (Liao, 2007) and showing empathy (Roschk and Kaiser, 2013).

Motives can be described as the perceived reasons underlying and motivating individual behaviour, which may shape evaluations of the morality of the individual (Reeder et al., 2002). ‘Inferred negative motives’ (Joireman et al., 2013) derive from the notion of ‘selfish motives’ (Grégoire et al., 2010), which pertain to the prioritisation of one’s interests to the detriment of another individual (Reeder et al., 2002). Accordingly, Joireman et al. (2013, p. 318) describe a firm’s inferred negative motives as the firm’s intention to maximise its own interests at the expense of the customer. In this thesis, intentions and motives are utilised interchangeably to refer to the reasons underlying service providers’ actions. In line with this perspective, the ‘inferred selfish

intentions of the manager during service recovery from double deviation' can be described as the extent of customers' perception that the service recovery from double deviation is predominantly motivated by the manager's gain (see Bock et al., 2016, p. 326). This concept can be distinguished from the intentionality of failure concept, which can be considered to reflect the extent to which the failure is volitional, whether positively or negatively motivated (Varela-Neira et al., 2014). Volitional failures would appear to refer to failures that are not accidental, which might be motivated by a variety of different types of motive.

Before the presentation of the hypotheses supporting the conceptual model, it is necessary to clarify the nature of the inferred motives of interest in this research. Customer evaluations of firm motives indicate that negative motives may encompass a wider range of motives than mere exploitation, including: to avoid potential losses, to offset demand issues or to combat the pressure of competition (Homburg et al., 2005). However, prior service recovery studies focus on inferred negative motives or greed, which refer to the firm's prioritisation of its own interests over those of the customer (Joireman et al., 2013; Crisafulli and Singh, 2016; Lee et al., 2017).

The term 'inferred selfish intentions' is utilised in the current research as this reflects the earlier studies in psychology on which the theory of perceived greed is based (Reeder et al., 2002; Grègoire et al., 2010). Moreover, the concept of inferred negative motives was not included in this study because studies indicate a variety of potential inferred negative motives (e.g., maliciousness, greed). Indeed, Joireman et al. (2015) appear to describe a specific form of negative motive, while labelling the term inferred negative motives. Therefore, selfish motives would appear to be a more specific term, which reflects the concept that is studied in this research. Table 5.1

contextualises the relevant inferred motives included in the conceptual model within the broader service recovery literature. In what follows, empirical studies of the effects of recovery tactics will be integrated to form hypotheses about how empathy of the apology may influence intentional inferences.

Table 5.1 Summary of Research of Inferred Motives in Service Recovery

Type of motive	Associated Action	Level of Analysis	Research
Inferred Negative Motives	Price increase of stock in a retail store	Store manager	Campbell, 1999
Perceived Greed	Double deviation	Firm	Grègoire et al. 2010
Inferred Negative Motives	Double deviation and service recovery from double deviation	Firm	Joireman et al., 2013
Inferred Self-Serving Intentions	Service recovery	Manager	Lastner et al., 2016
Inferred Benevolent Intentions	Service recovery	Manager	Lastner et al., 2016
Inferred Selfish Intentions	Service interaction with frontline employee	Frontline employee	Bock et al., 2016
Inferred Benevolent Intentions	Service interaction with frontline employee	Frontline employee	Bock et al., 2016
Inferred Manipulative Intentions	Service recovery	Manager	Antonetti et al. 2018
Inferred Selfish Intentions	Initial service failure	Firm	This research
Inferred Manipulative Intentions	Service recovery from double deviation	Manager	This research
Inferred Selfish Intentions	Service recovery from double deviation	Manager	This research
Inferred Benevolent Intentions	Service recovery from double deviation	Manager	This research

Apologies appear to affect customers' perceptions of firms' integrity, whereas monetary compensation appears to be less effective in this regard (Basso and Pizzutti, 2016). Equally, research into the effects of empathy and apology on revenge and avoidance indicates that these variables can influence negative customer responses

in similar ways (Radu et al., 2019). Similarly, Bock et al. (2016) show that customers infer the selfish or benevolent intentions of employees' extra-role behaviour, indicating that motivational inferences are pertinent attributional inferences within frontline interactions. Studies of humour in service recovery also indicate that affiliative humour, which aims at restoring bonds between individuals, can be particularly effective at reducing inferences of negative motives (Béal and Grégoire, 2022). This lends credence to the notion that communications that are focused on restoring relationships can be effective at reducing inferences of negative motives. Therefore, the model in Figure 5.1 depicts an association between the extent of empathy of the organisational apology and the inferred firm motives.

Schlenker and Darby (1981) provide evidence that individuals report a higher likelihood to use multiple components of apology as their responsibility for the transgression increases. Indeed, individuals appear to be more likely to express remorse and engage in self-castigation as controllability increases. In the service recovery literature, findings regarding the effects of apologies across different levels of compensation are mixed (Goodwin and Ross, 1992, De Ruyter and Wetzels, 2000; Liao, 2007). However, these studies do not control for the perceived quality of the apology. Mattila et al. (2009) underscore the importance of the quality of the apology, by demonstrating that high-quality apologies can increase the service recovery satisfaction of airline customers to a greater extent than the provision of an upgraded seat. Moreover, Roschk and Kaiser (2013) find that as the empathy, intensity and timeliness of the apology increase, service recovery satisfaction rises. Together, these studies indicate that the effect of apologies is contingent on the wording of apologies. Research into the effect of empathy on customer behaviour indicates that empathy can

be linked to altruistic and prosocial behaviours such as helping others (Allard et al., 2020). Therefore, a firms' display of empathy may be perceived as a signal of a firm's altruistic, rather than self-serving, motives. This provides a theoretical grounding for an association between empathy and inferred negative motives.

The interaction between distributive and interactional justice may provide a justification for the effect of the empathy of the apology. Proponents of equity theory argue that individuals' perceptions of outcomes are more favourable when they believe that they can influence the outcome (Thibaut and Kelley, 1959; Folger, 1977; Folger et al., 1979). This is reflected in legal (Cohen, 1985) and organisational behaviour research (Bies and Shapiro, 1988). In a similar vein, Zechmeister et al. (2004) provide evidence that when a transgressor provides an apology without correcting their behaviour, individuals display higher levels of retaliatory behaviour.

In the service recovery context, the prevalence of interaction effects between interactional and distributive justice indicates that care and concern exert greater effects when compensation is provided (Tax et al., 1998). Conversely, McCollough et al. (2000, p. 131) contend that customers appear to be sensitive to 'hollow justice', in which the firm ensures one form of justice (e.g., interactional justice), while not providing another form of justice (e.g., distributive justice). These studies provide support for the notion that victims appreciate apologies when they are accompanied by tangible efforts to rectify the victim's losses (Fehr and Gelfand, 2010). Moreover, empirical evidence indicates that apologies can be more effective when accompanied by the acceptance of a penalty or symbolic cost, which demonstrates a desire to repair the wrongdoing (Antonetti and Baghi, 2022). Taken together, these insights indicate that apologies accompanied by costs for the firm may be perceived as more genuine,

which appears to raise their efficacy. Therefore, showing that the manager experiences emotional contagion and empathises with the customer's situation may imply that the failure is costly for the manager, thereby reducing the perception that the firm is superficially apologising to mollify the customer.

Within the literature concerning corporate social responsibility (CSR) framing, research indicates that customers' post-failure attitudes vary depending on whether the CSR message is framed in terms of competence or warmth (Bolton and Mattila, 2015). Moreover, the inclusion of a message about the firm's care for broader society appears to yield positive perceptions about the warmth and the competence of the firm which can influence loyalty and negative word of mouth (Antonetti et al., 2021). The wording of marketing communications also appears to activate customers' persuasion knowledge, as messages that state that the customer is powerful can lead customers to infer manipulative intent (Antonetti and Crisafulli, 2022). Similarly, prior studies indicate that customers form nuanced perceptions of the hypocrisy and morality of the firm based on the combination of the firm's actions and the use of a morality or a business case frame in CSR messages (Hafenbrädl and Waeger, 2021). These studies indicate that the wording of marketing communications can influence customers' persuasion knowledge and thereby, alter customers' inferences of negative motives.

Moreover, research into strategic alliances indicates that trust of alliance partners depends on attributions concerning the motives of alliance partners, which derive from satisfying and equitable interactions (Christofferson and Robson, 2017). Therefore, trust repair strategies may require the alteration of the inferred motives of the firm. Within the service failure and recovery literature, it has been argued that

apologies play an attributional role, by changing customers' perceptions that the service failure is a desired outcome for the firm (Joireman et al., 2013). This is reflected in the contentions of Antonetti et al. (2018), that intense apologies can reduce the negative effects of DSCs on customers' perception that managers are motivated by manipulative intentions. Therefore, increasing the empathy conveyed through the apology may convey less selfish motives of the transgressor, by raising customer perceptions that the firm cares about the customer and experiences negative emotions in response to the customer's experience. This indicates that the way in which the apology is provided may alter motivational inferences, and therefore:

H_{1a} Apologies with higher levels of empathy will lead customers to infer less selfish intent of the manager during service recovery from double deviation.

As was highlighted in the previous discussion, empirical studies suggest that the employees' apologies can influence more intentional inferences than the inference of selfish intentions. Therefore, three potential alternative mediators are tested in this study to provide evidence of the validity of the conceptual model. The alternative mediators include the benevolent and manipulative intentions of the manager during service recovery from double deviation and the selfish intentions of the firm during service failure. Inferred manipulative intentions can reflect the perception that an individual attempts to influence the cognitive evaluations of another individual to achieve gains (Antonetti et al., 2018). Similarly, amoral manipulation can be described as a willingness to engage in unethical behaviour to achieve gains (Musarra et al., 2023). The literature into DSCs indicates that service recoveries might lead customers to infer that the manager is manipulative (Bonifield and Cole, 2008). Equally, Antonetti

et al. (2018) provide empirical evidence that providing a more intense apology can alleviate the effects of DSCs on inferences of manipulative intentions.

Researchers also contend that the way in which the apology is provided may also impact on integrity attributions. Laer and de Ruyter (2010) contend that apologies are more effective at raising integrity perceptions when they are provided in a narrative format, rather than an analytical format. In a different study, Pacheco et al. (2019) provide evidence that timely apologies raise customers' perceptions of service provider integrity. Given that customers' ratings of integrity appear to be negatively associated with perceptions of manipulative intentions (Lunardo and Mbengue, 2013), one might expect that actions that raise perceptions of integrity also reduce the inference of negative motives. Therefore, evidence from within and outside of the service recovery literature indicates that inferences of manipulative intent may be influenced by apologies.

Moreover, Joireman et al. (2013) utilise the same measure of inferred negative motives for double deviation to measure inferred motives after a recovery attempt. This indicates that the recovery may influence customers' perceptions of firms' motives for the initial service failure. In consideration of this, a measure of the inferred selfish intentions during the initial service failure is included in this study to examine whether the apology operates through the alteration of the inferred failure motives or managerial motives for recovery. Inferred selfish intentions can be contrasted with perceived benevolent intentions, which Bock et al. (2016, p. 316) define as "*the degree to which the customer perceives the employee behavior is motivated by a genuine concern for the customer's welfare*". Therefore, the elicitation of selfish motives often coincides with the reduction of the inference of benevolent motives. Indeed, apologies

appear to alter inferences of benevolent intentions, as a genuine apology can reassure the customer of the firm's concern for the customer's interests (Lastner et al., 2016).

Thus, the following hypotheses will be tested:

H_{1b} Apologies with higher levels of empathy will lead customers to infer less manipulative intent of the manager during service recovery from double deviation.

H_{1c} Apologies with higher levels of empathy will lead customers to infer less selfish intent of the firm during the initial service failure.

H_{1d} Apologies with higher levels of empathy will lead customers to infer greater benevolent intent of the manager during service recovery from double deviation.

5.3 Inferred Intentions during Service Failure

This research includes an additional antecedent of customers' inferred motives which concerns the inferred intentionality of double deviation. The term 'intentionality of double deviation' is adapted from the term 'intentional service failure', which denotes customers' perceptions of the extent to which the service provider intends the service failure to occur (Varela-Neira et al., 2014). Prior research indicates that customers form perceptions of the extent to which double deviations are negatively motivated, following exposure to situational cues. For example, Joireman et al. (2013) show that when employees are encouraged to favour customers who intend to purchase larger items, the customer infers that the firm harbours self-serving motives. The current research clarifies whether situational cues present in initial failures influence customers' post-recovery evaluations of firms' motives. This approach is rooted in an earlier study by Reeder et al. (2002), which demonstrates that information regarding the incentives for an individual's action can influence people's evaluations of the selfishness of the individual. Similarly, Reeder et al. (2005) show that individuals can infer that people have self-serving motives based on specific cues, such as their opinions concerning

political issues. If individuals revise motivational inferences based on isolated actions or opinions, it is possible that customers may extrapolate information about the intentionality of the double deviation to firms' motives during double deviation recovery.

Therefore:

H₂ Higher perceptions of intentionality of the double deviation will lead to higher levels of customers' inferred selfish intent of the manager during service recovery from double deviation.

Previous studies demonstrate the pervasive effect of matching the recovery tactic to the failure type (Roschk and Kaiser, 2014) and context (Cambra-Fierro et al., 2015b). For example, Gelbrich and Roschk (2017) provide evidence that the provision of compensation in a more personal way exerts a greater effect on justice perceptions when the failure occurs in the context of a strong relationship. Indeed, studies indicate that the recovery should match the nature of the failure, in terms of explicitness (Sinha and Lu, 2019) and integrity (Basso and Pizzutti, 2016). Similarly, when exchanges lead to a loss of status, apologies appear to be more effective than financial compensation at restoring trust (Cremer, 2010). Accordingly, Haesevoets et al. (2013) contend that individuals' preferences for money vs. apology resources vary depending on the extent of intentionality of the transgression. In this regard, a study by Chen et al. (2018) indicates that if customers deem a failure to be less moral, monetary overcompensation leads to higher NWOM intentions. Therefore, more intentional failures may heighten the need to reassure customers of the firm's ethicality.

Apologies may convey ethicality, as apologies appear to convey guilt, which reassures the victim of the transgressor's caring and sensitive nature (Hareli and Eisikovits, 2006). One study provides empirical evidence that apologies influence

customers' perceptions of firms' integrity and benevolence (Xie and Peng, 2009). Therefore, apologies may be particularly effective following failures that indicate a lack of integrity or benevolence, as recoveries that target perceptions of ethicality appear to be best placed to recover from failures concerning integrity or morality. Consistent with this perspective, a field study provides evidence that apologies exert stronger effects on switching behaviour under highly intentional failure conditions (Iglesias et al., 2015). Overall, evidence suggests that if a failure is negatively motivated, the effectiveness of apologies increases. Therefore, the conceptual model in figure 5.1 includes a moderating effect of intentionality, which captures the following hypothesis:

H₃ The effect of the empathy of the apology on customers' inferred selfish intentions of the manager during service recovery from double deviation is stronger when the initial failure is perceived to be intentional.

5.4 Inferred Intentions and Anger

This section discusses the impact of the inferred firm motives on anger. Marketing studies indicate that customers' observation of the mistreatment of others can lead to anger (Porath et al., 2010). Therefore, customers appear to judge certain behaviours as wrong and morality judgements appear to elicit anger. Studies indicate that the perceived motives of others can exert a large influence over moral judgement (Young et al., 2010). Campbell (1999) provide evidence that if customers attribute price increases to firms' negative motives, then they are more likely to perceive the price increase to be unfair and less likely to repurchase from the firm. Similarly, Crisafulli and Singh (2016) find that the inference of negative motives is negatively associated with distributive justice perceptions. Given that studies support a negative association between justice perceptions and anger (Porath et al., 2011), inferred motives and anger may be associated.

Empirical evidence indicates that the inference of self-serving motives for firms' CSR initiatives reduces the positive effects of CSR initiatives on customer satisfaction (Gao and Mattila, 2014; Bolton and Mattila, 2015). Given that self-serving motives can negatively affect satisfaction and anger and dissatisfaction appear to be congruent (Bougie et al., 2003), a reduction in the inference of negative motives for service failure may reduce anger. Moreover, research indicates that the negative effect of apologies on anger is mediated by the inferred firm motives for double deviation (Grégoire et al., 2010; Joireman et al., 2013). Accordingly, the inference of selfish intentions for engaging in service recovery from double deviation might mediate the effect of highly empathetic apologies on anger. Therefore,

H₄ Lower levels of customers' inferred selfish intentions of the manager during service recovery from double deviation will lead to lower levels of customer anger.

5.5 Inferred Intentions and Revenge Desires

In this research, revenge desires are defined as customers' retaliatory feelings towards the firm (Bechwati and Morrin, 2003), whereas revenge behaviours denote customers' attempts to punish the firm (Grégoire and Fisher, 2008). Customers may elect to engage in revenge due to a desire to deter the firm from engaging in future transgressions (Grégoire et al., 2010). Consistent with this, studies indicate that the observation of mistreatment and injustice raises customers' revenge desires (Porath et al., 2011). In a similar vein, the perceived motives for offering service guarantees appear to influence customers' repurchase intentions (Crisafulli and Singh, 2016). Similarly, the inferred negative motives for double deviation and revenge desires appear to be positively associated (Joireman et al., 2013). Accordingly, customers may be described as 'jurors', who incorporate inferred firm motives into a judgement

concerning whether the firm should be punished for its actions (Nepomuceno et al., 2017, p. 355). This indicates that revenge can be cognitively driven, which gives rise to the following hypothesis:

H₅ Lower levels of customers' inferred selfish intentions of the manager during service recovery from double deviation will lead to lower levels of customer revenge desires.

5.6 Monetary Overcompensation and Anger

Overcompensation can be considered as the reimbursement of the assets customers lose due to service failure and the offer of additional financial benefits (Gelbrich and Roschk, 2011b). The literature review suggested that overcompensation can increase customers' satisfaction ratings beyond the level achieved by simple compensation (e.g., Noone and Lee, 2011). Although service recovery studies consistently find a positive association between overcompensation and satisfaction following single deviations, only one study considers the effect of overcompensation after double deviations. In this regard, Grégoire et al. (2018) find that customers who receive a full refund and a voucher after a double deviation, display higher perceptions of justice, higher positive affect, lower negative affect and lower desires for revenge. Given that positive affect features as an indicator of satisfaction in earlier studies (e.g., Oliver et al., 1997), these findings appear to be consistent with the findings of service recovery studies.

Routed in equity theory, distributive justice theory (Homans, 1961) indicates that individuals evaluate conflict resolutions by assessing whether the resolution reinstates tangible losses. This indicates that effective monetary compensation restores equity in the customer-service provider relationship (Hocutt et al., 2006). Evidence suggests that compensation may exert a greater impact at lower levels of failure severity,

because compensation may provide sufficient benefits to redress small losses (Smith et al., 1999; Weun et al., 2004). Conversely, the importance of monetary compensation might increase with failure severity, as customers may not require compensation after mild failures (e.g., Choi and Choi, 2014). These contrasting perspectives raise the question of whether customers' satisfaction levels vary to a greater extent following simple compensation or overcompensation.

An answer to this question may be provided by prospect theory (Kahneman and Tversky, 1979), which indicates that individuals emphasise potential financial losses more than potential financial gains, and that individuals' sensitivity to marginal changes in these losses and gains decreases with magnitude. Building on this research, Gelbrich et al. (2015) contend that when the service experience is severely damaged, customers may view the purchase price as a reference point for their expected compensation. This indicates that customers consider overcompensation to be a financial gain. Accordingly, empirical studies show that monetary overcompensation significantly enhances satisfaction, while the marginal effect of monetary overcompensation on satisfaction is lower than that of simple compensation (Noone and Lee, 2011; Gelbrich et al., 2015, 2016).

Studies of flight overbooking situations indicate that if the notification of the customer occurs later, the customer becomes more responsive to higher levels of compensation (Nazifi et al., 2021a). Thus, the inconvenience appears to dictate the level of simple compensation, and customers appear to become less responsive to compensation as the level of compensation moves further away from the simple compensation level. Consistent with this, Gelbrich et al. (2015) provide empirical evidence that the compensation-satisfaction curve appears to plateau at

approximately 150%. Haesevoets et al. (2017) find evidence of a positive, curvilinear response function for compensation and customer loyalty between the ranges of 100% and 500%, as well as evidence of a turning point within the range of 140% to 168% compensation. Despite discrepancies between the distinct turning points and curve shapes observed in different studies, previous studies indicate that when compensation is considered in isolation, increasing compensation beyond 150% does not yield improvements in loyalty or satisfaction.

Applying signalling theory (Spence 1973), overcompensation might be perceived as a strong signal of the firm's intention to restore equity. However, Crisafulli and Singh (2016) find evidence that the provision of overcompensation does not significantly enhance customer perceptions of firm motives to a greater extent than simple compensation. Arguably, overcompensation does not restore perceptions that the firm is moral, as overcompensation might promote inequality (Chen et al., 2018). Haesevoets et al. (2013) provide evidence of this, as overcompensation does not appear to enhance forgiveness to a greater extent than simple compensation. In a similar vein, Austin and Walster (1974) contend that customers display guilt in conditions of positive inequity.

Within the services marketing literature, Estelami and De Meyer (2002) also provide evidence that customers suspect ulterior motives when service providers are extremely generous. This indicates that simply providing additional financial benefits may not be an effective customer relationship management strategy. Moreover, Haesevoets et al. (2014) provide evidence that overcompensation may be associated with lower perceptions of moral orientation of the perpetrator and lower trust of the perpetrator than simple compensation. In the service recovery context, monetary

compensation does not appear to be sufficient to significantly transform customer perceptions of firms' motives from negative to positive (Joireman et al., 2013). Therefore, no formal hypothesis is presented for the effect of overcompensation on inferred intentions.

Empirical evidence indicates that compensation can be more effective at alleviating anger and NWOM intentions and improving corporate image perceptions when a firm engages in hard service termination (i.e., a more severe form of intentional failure) rather than soft service termination (Nazifi et al., 2019). These findings indicate that compensation may be redundant when customer losses are lower and that overcompensating for service failure may be ineffective. However, given the association between overcompensation and negative affect found by Grégoire et al. (2018), a negative association between overcompensation and anger might be anticipated.

Anger is defined by Grégoire et al. (2010) as "*a strong emotion that involves an impulse to respond and react*" (p.742). Folkes et al. (1987) provide evidence that post-failure measures of dissatisfaction, disappointment and anger are correlated with negative consumption experiences. Specifically, negative events are thought to encourage attribution search, thereby triggering attribution-dependent emotions, such as anger (Choi and Lin, 2009). Indeed, Wong and Weiner (1986) conduct three empirical studies, which demonstrate that negative disconfirmation triggers more attributional questions than positive disconfirmation. This reflects the assertion that anger is an attribution-dependent emotion (Soscia, 2007; Gelbrich, 2010) and that angry customers report high levels of dissatisfaction (Bougie et al., 2003). Moreover, customers' qualitative accounts indicate that employee effort in service recovery

satisfies customers, while a lack of employee effort may trigger anger (McColl-Kenedy and Sparks, 2003). Given that overcompensation appears to be highly associated with satisfaction, and that dissatisfaction and anger appear to be highly associated, the service recovery tactics that increase satisfaction may reduce anger. The following hypothesis is, therefore:

H₆ Monetary overcompensation will lead to lower levels of customer anger than simple monetary compensation.

5.7 Anger and Revenge Desires

Previous research indicates that customers may display different levels of desires for revenge after double deviations due to differences in justice perceptions (Bechwati and Morrin, 2003), perceptions of betrayal (Grégoire et al., 2009), severity perceptions (Grégoire et al., 2010), deontic justice perceptions (Porath et al., 2011) and inferred motives (Joireman et al., 2013). Multiple models of double deviation responses indicate that anger links customers' appraisals of harm and attributions of causality with their desires and behaviours (Grégoire et al., 2010). Researchers contend that anger drives individuals to engage in actions to alleviate their anger. For example, Tripp et al. (2007) note that people describe their anger as a hot emotion, characterised by a desire to engage in revenge. Indeed, Loewenstein (2000) provides the anecdotal example of individuals who engage in road rage. Notwithstanding the knowledge that road rage may not be in their interest, anger can compel individuals to engage in such behaviours. Thus, customers may pursue revenge to alleviate their anger. Indeed, studies in the dissatisfaction literature indicate that customers may be more likely to engage in retaliatory behaviours when they display higher levels of anger. Consistent with this perspective, a study indicates that anger fully mediates the relationships

between dissatisfaction and complaining and NWOM, and partially mediates the relationship between dissatisfaction and switching (Bougie et al., 2003). Similarly, anger appears to partially mediate the effects of dissatisfaction on switching and complaining intentions (Sánchez-García and Currás-Pérez's, 2011).

Similarly, double deviation studies indicate that anger partially mediates the effects of inferred negative motives on revenge desires (Grégoire et al., 2010; Joireman et al., 2013). This is also supported by studies of workplace vengeance, which demonstrate that anger mediates the influence of perceptions of malice and greed on revenge behaviours (Crossley, 2009). Furthermore, Barclay et al. (2005) find that unfavourable outcomes and low levels of procedural justice encourage outward-focused emotions (e.g., anger), which drive revenge behaviours. This indicates that anger arises from the moral judgement of firms' actions, and fuels revenge desires. Accordingly, the conceptual model depicted in figure 5.1 includes a serial mediation between empathy of the apology and revenge desires, which operates through inferred selfish intentions and anger. The following hypothesis is therefore:

H₇ Lower levels of customer anger will lead to lower levels of customer revenge desires.

5.8 The Non-linear Effects of Organisational Apologies

This section addresses the potential consequences of highly empathetic apologies. Two alternative hypotheses will be presented to reflect the mixed evidence in the literature. These hypotheses are not included in Figure 5.1, because they do specify a relationship between two variables within the conceptual model. Rather, the two hypotheses concern the clarification of the nature of the relationship that was specified in H_{1a}. The study of the extent of psychological tactics enables these hypotheses to be

considered and can extend the insights gleaned from previous research into multiple combinations of psychological tactics. Oliver et al. (1997) forward the concept of customer delight, which refers to the experience of arousal and positive affect due to surprisingly positive disconfirmation. Empathetic apologies appear to raise satisfaction to a greater extent than unempathetic apologies (Roschk and Kaiser, 2013), which indicates that as the empathy conveyed increases, satisfaction also increases. Thus, if empathy can be increased to even higher levels than have been previously studied, customer delight may be observed. Indeed, applying the principles applied to monetary compensation, one might anticipate that as the level of empathy increases, the positive effects of the recovery increase (McCullough et al., 2000; Noone, 2012). Therefore, a negative linear association might be posited between empathy of the apology and inferred selfish intentions during double deviation.

However, researchers' detailed examination of the effects of multiple gradations of recovery tactics indicates that recovery tactics can display curvilinear relationships with post-recovery satisfaction (e.g., compensation, Gelbrich et al., 2015). Thus, the provision of higher levels of empathy may yield diminishing marginal returns, which render the use of excessively empathetic wording to be an ineffective recovery tactic. Moreover, research into timeliness indicates that customers may display a 'zone of tolerance' for the extent of timeliness of the recovery (see also Boshoff, 1997; Hogueve et al., 2017; Pacheco et al., 2019). This arguably provides evidence that customers can perceive non-utilitarian tactics to be excessive and overloading. Therefore, the provision of extremely high-quality apologies may be less efficient than merely meeting customers' expectations.

Applying equity theory, individuals who over-benefit from exchanges might experience distress (Austin and Walster, 1974). Accordingly, although individuals appear to display biases towards beneficial outcomes (Messick and Sentis, 1979), customers may display feelings of guilt and the fear of retaliation when their social investments are overrewarded (Walster et al., 1973). Consistent with this, Loewenstein et al. (1989) find that individuals' utility curves display weak and negative gradients in conditions of positive inequity. These findings contradict those of Kahneman and Tversky (1979) and may be particularly relevant to the effects of high levels of empathy. This may reflect that Loewenstein et al. (1989) study situations in which the individual is aware of the negative consequences for the other party involved in the transaction. The findings of Loewenstein may be highly relevant to empathetic apologies, as customers may think that extremely empathetic apologies require the service provider to experience undue levels of discomfort. Thus, the provision of extremely empathetic apologies may encourage customers to feel concerned for the manager.

Further support for a non-linear relationship between empathy and satisfaction is provided by research into the effectiveness of explanations. Explanations appear to only reduce employees' anger when they are logical and sincere (Bies et al., 1988). In a similar vein, Hareli (2005) contends that explanations are more effective when they are convincing, credible and appropriate. Furthermore, when apologies are provided alongside evidence of the accused individual's innocence, trust can be negatively affected (Kim et al., 2004). Therefore, it may be possible that if the level of empathy conveyed appears to be inappropriate to the service failure, the effect of empathy may be inhibited.

Theoretical support for the nonlinear effects of the empathy of apologies may also be provided by persuasion knowledge. Persuasion knowledge refers to consumers' knowledge regarding the tactics used by marketers in their persuasion efforts (Friestad and Wright, 1994, p. 1), which can mitigate the positive effects of firms' communications strategies. For example, flattering messages can be perceived as blatant and unsurprising, thereby reducing customer perceptions of the trustworthiness of the sender (Guo and Main, 2012). In this regard, customers may deem extremely empathetic apologies to be persuasion attempts, which might arouse suspicion concerning the manager's motives. Indeed, Harmeling et al. (2015) find that 27% of customers report suspicion following positive transformational relationship events. Moreover, Estelami and De Maeyer (2002) provide evidence that customers consider the ulterior motives of the firm in situations in which service providers are extremely generous. This discussion gives rise to two alternative hypotheses, and therefore:

H_{8a} The relationship between the empathy of the apology and customers' inferred selfish intentions of the manager during service recovery from double deviation is linear.

H_{8b} The relationship between the empathy of the apology and customers' inferred selfish intentions of the manager during service recovery from double deviation is non-linear.

5.9 Concluding Remarks

This chapter included a summary of the conceptual model, the rationale underlying the research hypotheses and the intended contributions of the current research. The conceptual model incorporates the empirical findings of studies of service recovery tactics and insights from customer revenge models. The discussion highlighted how service recovery studies emphasise the importance of congruency (Cabra-Fierro et al., 2015b), indicating that service recovery tactics may perform different functions in

service recovery from double deviation. Moreover, the integration of the themes emerging from the literature review indicated that previous customer revenge models emphasise the importance of evaluations of motives in guiding customers' anger, desires and behaviour (Grégoire et al., 2010). Overall, Chapter 5 integrated the two research streams to aid understanding of the potential responses to empathetic apologies. Therefore, an aim of the conceptual model depicted in Figure 5.1 is to provide a more nuanced understanding of the effects of empathetic apologies after double deviations, which integrates the notion of motive.

The second intended contribution of the current research is to respond to calls for research into the appropriate type of apology to provide during service recovery (Khamitov et al., 2020). While extensive research has been conducted into the recovery effect of providing larger amounts of monetary compensation, this research intends to elucidate the effects of varying gradations of psychological tactics (Chen et al., 2018) and clarify whether monetary overcompensation can elicit favourable responses in the post-double deviation phase. Therefore, the present research will investigate how service recovery strategies and failure types interact to affect customers' revenge desires and behaviours after double deviations.

CHAPTER 6: METHODOLOGY

6.1 Introduction

Chapter 5 presented the conceptual model and explained the rationale for the research hypotheses, which emerged from the literature review. Chapter 6 includes an explanation of the methodology adopted to test the hypotheses presented in Chapter 5. Chapter 6 begins with Section 6.2, which elucidates the philosophical position of the research to provide an explanation for the adopted research methodology. Section 6.3 discusses the alternative research designs that could be adopted before clarifying the adopted research design. This will enable future research to reflect critically on the approach adopted to assess the validity of the findings in comparison with other studies focusing on similar concepts. Section 6.3 then compares the different methodologies that could be utilised to provide support for the conceptual model, before clarifying the reasons for the selection of the adopted methodology. Section 6.4 presents the advantages and disadvantages of different types of experiment and summarises the rationale underlying the use of one behavioural experiment and two hypothetical scenario-based experiments. Section 6.4 culminates in a summary of the research design and the nature of the experiments. Together, these sections provide a detailed overview of the rationale for the research design. This is necessary to open the research up to critical reflection and improvement. This will also enable future studies to build on the understanding of the advantages and disadvantages of the methodological approaches utilised in this research.

The latter half of the chapter provides a detailed account of the methods and measures used in this research. Section 6.5 outlines the experimental scenarios, manipulation checks and measures that were utilised across the studies to link the study designs to the conceptual model. This leads into Section 6.6, which provides an

overview of the recruitment approach to collect the data for the experiments. First the method of determination of sample size is presented to provide a justification for the significance of the findings. Second, the methods used to obtain the sample are specified to clarify the extent to which the sample reflects a random sample. Section 6.7 discusses the ethical considerations of the project and reflects on the methodology, by highlighting the main limitations of the approach that was utilised. Sections 6.8, 6.9 and 6.10 include brief overviews of the pre-screening and pilot studies. Section 6.11 specifies the samples that were utilised for studies 1, 2 and 3. Finally, Section 6.12 lays the ground for the analysis chapter, by providing an outline of the data analysis approach.

6.2 Philosophical Position

Social science research can be conducted from a variety of philosophical standpoints, ranging from positivism to interpretivism. Therefore, the philosophical positioning of this research project will be clarified, to provide a rationale for the adopted data collection method. Section 6.2.1 provides an overview of the common philosophical positions that are adopted in marketing research. Section 6.2.2 commences with an outline of the logical positivist perspective, which was adopted in early studies in the marketing literature, before discussing falsificationism in Section 6.2.3 and outlining some of the criticism of this approach. The assumptions of positivism and falsificationism inform many service recovery study designs and therefore, serve as an appropriate starting point from which to determine the philosophical perspective of this research. Section 6.2.4 introduces critical realism as an alternative philosophical perspective for the research project. Section 6.2.5 outlines the adopted philosophical

perspective. The philosophical positioning of the research captures the underlying assumptions concerning the ontological, epistemological, axiological and methodological stances adopted to conduct the research. Accordingly, this section will explain the assumptions regarding the accepted nature of reality, the appropriate methods for knowledge generation, the researcher's position relative to the subject of study and the appropriate data collection and analytical techniques. This is necessary to provide the motivation for the methodological approach described in Section 6.3.

6.2.1 Philosophical Perspectives

Philosophical perspectives vary in terms of the accepted ontology and epistemology. Five dominant philosophical perspectives in management research include positivism, interpretivism, postmodernism, critical realism and pragmatism. Positivism can be considered to maintain that society is governed by causal laws, which can be understood through scientific observation (Saunders et al., 2019). Within positivism, logical positivism appears to reflect the view that science should be confined to the study of questions that can be tested (Popper, 1959). Interpretivism can be considered to hold that social phenomena cannot be understood independent of the researcher's interpretation and values and that interpretations are a fundamental part of knowledge generation (Bernard, 2011). The postmodernist standpoint can be considered to view reality to be socially constructed and knowledge to be determined by dominant ideologies (Saunders et al., 2019). Critical realism can be considered to differentiate between the underlying mechanisms that dictate events, the events and the observations of events (Bhaskar, 2014). Pragmatism can be considered as a perspective that views reality as a mixture of processes, experiences and actions,

while valuing theories that lead to advancements in practise and solve problems faced by people (Saunders et al., 2019).

Interpretivism can be considered to encompass multiple perspectives (Saunders et al., 2019), depending on the value placed on different forms of knowledge generation. Humanism appears to reflect the view that social science is a product of humans and therefore should be understood through the meanings humans apply to phenomena (Parsons, 1965). However, scholars criticise the emphasis on humans, arguing for the importance of traditions and the history within which individuals are situated (Crotty, 1998). Hermeneutics considers social science as the interpretation of texts (Bernard, 2011). However, there appears to be considerable debate concerning the status that should be given to the text, the author and the reader (Crotty, 1998). This highlights the difficulty of determining which interpretations should be valued and which works should be revered, especially given that texts appear to be shaped by the societies and time periods in which they are written.

Phenomenology understands social science as the interpretation of experiences of phenomena, rather than the direct observation of the world (Husserl, 1964; Embree, 2008). Phenomenology can be distinguished from humanism by its focus on voluntary actions rather than involuntary human behaviour (Schutz, 1962). Moreover, phenomenology can be considered to place an emphasis on the importance of understanding phenomena with which humans are involved, while setting aside the researcher's preconceptions (Crotty, 1998). Critical enquiry, developed by the Frankfurt School, places an emphasis on critical engagement with power structures within society, but does not rule out the possibility of finding laws of social science (McCarthy, 1990). However, value is placed on the awareness and criticism of social

structures (McCarthy, 1990). This research is highly influenced by the positivist philosophical position, which is frequently adopted in service recovery research. Therefore, the next section discusses logical positivism to provide the context of the philosophical perspective adopted in this research.

6.2.2 Logical Positivism

Positivism emerged from the Vienna Circle, which was a group of scientists and philosophers united in their appreciation of Wittgenstein's theory (Anderson, 1983). Wittgenstein's theory indicates that the meaning of propositions is determined by the extent to which they can be empirically verified. Positivism can be considered to assume that there is an objective reality, which is governed by natural laws and mechanisms (Hunt, 1991). Adopting a positivist stance leads researchers to attempt to maintain an objective stance concerning the research topic and utilise scientific approaches to gain an understanding of real phenomena (Carson et al., 2001). Thus, positivist researchers attempt to advance theory by forming generalisations using a replicable approach and therefore, value claims that are based on experience (Easton, 2002) rather than on unobservable phenomena (Manicas, 1987).

The logical positivist perspective emphasises the importance of prediction rather than definition (Crotty, 1998). Crotty (1998) describes how positivist researchers accept observation and experimentation as methods of sufficient rigour to derive scientific laws. However, this does not mean that causal relationships can be asserted through observation. Indeed, Hunt (1991) contends that this perspective acknowledges that while the co-occurrence of two events indicates a "regularity relationship" (p.34), this does not prove a causal association between the events. Rather, the temporality

of the events may provide stronger support for a causal association, as the knowledge that A precedes B and is highly correlated with B may provide evidence that A is a potential cause of B (Hume, 1739). Accordingly, Gerring (2001) argues that social science researchers usually form claims of probabilistic causality. These types of causal claims are the focus of the current research.

Social scientists' positivist position might reflect the view that scientific study should be restricted to that which is observable by the senses (Keat, 1979). This does not deny the existence of socially constructed terms, rather it indicates that they can be defined in terms of observable phenomena. However, Husserl (1964) brings into question the extent to which the scientist can be sure that the observed is independent of the observer. Similarly, Achinstein (1965) casts doubt on the possibility of obtaining unbiased measures of marketing terms, arguing that observation is often predicated on the theoretical foundations of key constructs. In contrast, Cooper (1987) contends that terms remain 'open' (p. 127) and gain meaning through their use in multiple contexts and their connection with other constructs. Thus, a post-positivist perspective acknowledges that researchers can be active constructors of scientific knowledge (Fox, 2008). Nevertheless, it could be argued that simply because researchers can bias observations does not imply that the researcher should abandon the goal of maintaining objectivity.

Logical empiricism is described as a moderate form of positivism, which recognises the impossibility of the unequivocal verification of a proposition through observation (Lakatos, 1987). Within the marketing literature, empiricism has been characterised as a research orientation, which compares data to theory, and detects instances of dissonance between them (Arndt, 1985). Logical empiricism can be

applied within the marketing sphere, by treating behavioural concepts as objects, which can be removed from their constituent parts (Arndt, 1985). However, in contrast with early forms of positivism, logical empiricism forwards the notion that knowledge can be generated by a series of statements that are tied together using probability logic and can be tested through empirical approaches (Uebel, 2013). The acceptance of the importance of probabilistic connections between statements renders this philosophical perspective particularly appropriate to the current research, which builds on previous evidence of regularity relationships.

Overall, four benefits of positivism are appropriate to the current research. First, positivism places an emphasis on the importance of gathering evidence to support hypothesised causal associations between two variables (Saunders et al., 2019). This appears to be beneficial to the current research in which there exists a wealth of literature which can inform hypotheses about how variables might relate to each other. Second, positivism focuses on the adoption of empiricist methods, which aim to reduce the risk of human bias (Crotty, 1998). Previous service recovery studies frequently utilise empiricist methods and appear to generate insights that can be applied across multiple contexts. This indicates that human bias does not irradicate the possibility of generating replicable findings. Third, researchers associate positivism with the objective of generating rules and laws that govern behaviour and events (Saunders et al., 2019). This would appear to be particularly beneficial for service recovery research, in which many debates focus on how managers should respond to failures in a way that encourages the customer to return to the firm. Fourth, Friedman and Michael (1999, p. 8) note that logical positivism acknowledges the integral role of concepts, which are defined by virtue of their position within a logically organised system. Indeed,

Carnap (1961) argues that the reason-based organisation of individual observations into knowledge systems is also a fundamentally important aspect of knowledge generation. This indicates that knowledge is acquired not only through the observation of phenomena, but also through the construction of logical connections between variables. This would appear to indicate that generating service recovery models represents one method for advancing extant understanding of service recovery.

6.2.3 Falsificationism

The falsification approach to obtaining empirical evidence to support propositions was forwarded by Kuhn, Popper and Laudan (Laudan, 1977). Falsificationism views scientific progress as the result of tests that seek to refute preconceptions or existing theoretical perspectives (Anderson, 1983). Forwarded by Popper (1959), this perspective maintains that scientific method can be utilised to try to falsify hypotheses, thereby providing evidence to strengthen the case for the validity of the hypotheses. This perception of knowledge depicts each theory as a tentatively accepted truth, which may be falsified by future studies. Within this perspective, extant knowledge is contrasted with deviant propositions, which may be useful in the future, but only once a new theory can be developed (Homans, 1967). This indicates that a proposition is of value to researchers if it explains observations which contradict existing theory (Laudan, 1977).

The notion that the acceptableness of contributions to knowledge may be influenced by preceding theory and the researcher's theoretical background calls into question the logical positivist view that science is generated through objective observations (Anderson, 1983). This leads Kuhn (1977) to contend that positivistic

scientific practice leads to findings that rarely revolutionise the field by uprooting dominant paradigms. Other researchers (e.g., Duhem, 1953) note that the testing process can lead to erroneous results due to measurement errors. Equally, Pickering (1981) contends that scientific findings may be subjected to a test of acceptability which incorporates social ties, beliefs and practices. In a similar vein, Peter and Olson (1983) liken scientific theories to products, which require extensive marketing to encourage their adoption by the target market.

The aforementioned criticisms raise the question of whether the researcher can reasonably claim to maintain an objective stance. Therefore, throughout this thesis, careful consideration was taken in the interpretation of research findings, to reduce the likelihood of discounting valid research findings on the basis of prior contradictory evidence. To avoid discounting valid research findings, the experimental designs were developed in such a way as to limit the likelihood of ambiguous results that could be spuriously interpreted. Moreover, the hypothesis testing chapter (Chapter 8) incorporates a wide range of source material when comparing the extant findings with those of previous studies and where findings are contradictory to prior expectations, this is highlighted clearly for the reader. The next section considers a further alternative philosophical position of critical realism, which emphasises the value of revealing underlying mechanisms rather than scientific laws and may better reflect the theoretical focus of this research.

6.2.4 Critical Realism

Realism can be described as the assertion of the existence of some kind of entity and therefore, scientific realism can be considered to reflect the idea that entities exist

independent of scientific study (Lawson, 1999). Bhaskar (2014) describes critical realism as a perspective that acknowledges that reality is not reducible to absolute laws and is not entirely contextually defined. Instead, critical realism values the study of mechanisms, which do not parallel the universal or physical laws of the natural sciences. Critical realism focuses on generating statements about the function of mechanisms, which are considered to be real and underly events in the social world (Carlsson, 2005). Critical realism views interpretations as real, measurable phenomena, worthy of study. However, critical realism distinguishes between the 'transitive', which relates to individual perceptions of phenomena, and the 'intransitive', which concerns the phenomena (Bhasker, 2014). Within this perspective, the development of facts and critical perspectives concerning social phenomena are valid approaches to social science research (Sayer, 1992). Therefore, knowledge can be extended by adapting conceptual systems (Sayer, 2010) and using a wider range of methodologies than purely experimental approaches.

A further way in which knowledge can be accumulated is through critical engagement with conceptual models, which highlights inconsistencies and contradictions. Accordingly, critical realist researchers can be considered to distance themselves from the study of regularity laws, in favour of the study of the tendencies of causal mechanisms (Fleetwood, 2017). Within this approach, critical realists refer to 'open' and 'closed' systems. Fleetwood (2017, p. 42) distinguishes between open and closed systems as follows: closed systems refer to regularity relationships that specify that when X occurs then y occurs, whereas "*parts of this world not characterised by such regularities are open systems*". Therefore, it can be argued that Bhaskar does not consider casual laws to be the constant conjunctions of events. Rather Bhaskar's

philosophical position considers causal laws as the pattern of activity of causal mechanisms that underly structures, which when triggered, act with universality (Steinmetz, 1998, p. 178). This indicates that critical realism does not present a view that relies on relativism but argues for the existence of universal truths that can be only made manifest under certain conditions. Therefore, constant conjunctions are difficult to observe in the real world, in which events can occur due to a plurality of causal mechanisms.

Given that critical realists acknowledge open and closed systems, critical realism does not appear to preclude empirical or statistical methods of knowledge generation. Indeed, critical realist researchers provide detailed explanations of how techniques such as regression and experiments can still be compatible with a critical realist perspective. For example, Ron (2002) argues that experiments can be used to create the conditions that are conducive to the elicitation of the mechanism of interest, rather than purely assign cases to different levels of the independent variable. This appears to fit the description of scenario-based experiment, which are frequently adopted in service recovery research. It is not argued that customers are genuinely subjected to the independent variable. Rather, by observing customers' perceptions of the scenario to which they are exposed, the researcher can attempt to provide evidence to support the existence of an underlying theoretical mechanism for the events.

Sayer (1992) adopts a similar philosophical perspective, by arguing that researchers cannot contend that if X happens Y will happen. Rather, they can provide an explanation for how Y occurs by examining objects that can influence Y and the mechanisms that appear to connect X and Y. Despite the benefits of the critical realist

approach, examples of experimental researchers who advocate the critical realist perspective in marketing could not be obtained. This might be due to the potential tension between the aim of highlighting the overarching hierarchies that can alter outcomes and the micro-level focus of many experimental studies. The present research does not focus on uncovering hierarchical or cultural forces that influence outcomes and therefore, the approach appears to be more aligned with the logical empiricist tradition than the critical realist tradition.

6.2.5 The Adopted Philosophical Perspective

The philosophical perspective employed in this research can be described as a logical empiricist perspective. This theoretical perspective maintains the perspective of positivism that there is an objective truth (Nawrin, & Mongkolsirikiet, 2012). However, this perspective departs from the early positivist tradition, which only values data from personal experience. Instead, the logical empiricist view appears to maintain that “*intersubjective agreement on objects*” (Hirschheim, 1985, p. 26) represents acceptable evidence. Within logical empiricism, the role of the researchers is considered to concern the identification of insights concerning generalization laws, while acknowledging that outcomes are often situationally dependent. Such a perspective appears to underly many previous quantitative, survey-based and experimental marketing studies, as noted by Peter and Olson (1983) and by Hirschman (1985), in the description of the analytical scientist. Moreover, Hirschheim (1985) provides multiple examples of logical empiricist studies in psychological and sociological research.

While this research is highly influenced by the positivistic tradition, the philosophical positioning of the thesis acknowledges the fallibility of measurement. In this regard this thesis relies on the criterion of falsificationism to qualify the research hypotheses. This research aims to establish the effect of the level of empathy of the organisational apology on customers' revenge desires. Thus, an intended outcome of the research is to gather evidence to support causal inferences. Consequently, this research relies on deductive reasoning, in which hypotheses are formed based on extant theory. Data are then collected and compared with extant theory to add to knowledge (Saunders et al., 2019). Rather than the statement of scientific truth, such conclusions are probabilistic statements, based on the empirical evidence collected.

Multiple limitations of logical empiricism were considered in the discussion of logical empiricism and alternative perspectives. Critical perspectives highlight that the aim of the researcher maintaining an objective stance may be hampered by cultural factors and the context in which the researcher operates. However, in this thesis it is argued that the ideal of maintaining an objective stance can still be valuable in knowledge generation and therefore, the logical empiricist stance can be adopted. Moreover, the effort to understand specific causal relationships through experimentation can still add to knowledge about the social world, while the interpretation of the findings within the complex social world can present an interesting avenue to pursue in future studies. The current research could be considered to be in tension with the logical empiricist viewpoint due to its focus on latent variables that cannot be directly observed (e.g., revenge desires). However, Crotty (1998) contends that a researcher may choose to adopt a standpoint, because it is broadly consistent with their philosophical standpoint, even if the researcher disagrees with parts of the

philosophical standpoint. Therefore, this study is considered to resonate with the logical empiricist standpoint, notwithstanding that some aspects are in tension with the logical empiricist tradition.

The methodology was informed by the assumptions concerning ontology and epistemology. In line with the logical empiricist ideal of reducing bias and achieving replicability (Arndt, 1985), the research data were collected using a highly structured approach. The methodological approach was selected to ensure that previously utilised measures could be included which would reduce the likelihood of biased or inaccurate measurements. Moreover, the aim was to select a methodological approach that would ensure the separability of the cause and effects of interest. Therefore, the scenario-based experiment and behavioural experiment approaches were utilised to study the phenomena of interest. Table 6.1 depicts how the theoretical perspective feeds into the methodological approach, which will be explained in detail in the next section.

Table 6.1 Theoretical Perspective and Methodological Approach

Ontology	Realism, universalism. Entities exist independent of scientific study. There is one true reality.
Epistemology	The aim of developing generalisable findings; the potential to predict future events. Acknowledgement of the fallibility of measurement and the approximation of laws rather than the isolation of the truth.
Axiology	Researcher has the potential to bias findings. However, researcher aims to remain detached from the data, to separate their values from data collection and to maintain objectivity during data collection and analysis.
Methodology	Quantitative method of analysis.
Nature of Studies	One online, behavioural experiment; two online, hypothetical scenario-based experiments.

This section clarified the philosophical approach adopted in this research. First some of the principal tenets of positivism and early positivist perspectives were summarised, before distinguishing the characteristics of particular schools of thought within positivism. Finally, the philosophical approach of this research was identified as the logical empiricist stance. This relaxes the notion of generating scientific laws and understands knowledge generation as an effort to generate explanations, which can be found to be incorrect in the future. The next section discusses multiple research designs and elucidates the overarching research design.

6.3 Research Design

This section begins with a discussion of multiple types of research designs in Section 6.3.1 and highlights some of the strengths and weaknesses of each design. This is necessary to ensure that the appropriate design is selected to test the research question, as certain designs are sufficient to test causal relationships, while others may be more descriptive in nature. The adopted design is then presented in Section 6.3.2. Following the clarification of the design, multiple types of methodology are considered, as well as their strengths and weaknesses in Section 6.3.3. Section 6.3.4 outlines the reasons for selecting the experimental methodology. The documentation of the decisions made throughout the research process will facilitate future replications of the research, which may adapt or improve upon the conceptual model.

6.3.1 Types of Research Design

Research design can be described as the generation of decisions about the organisation of the research project, the determination of the participants to be

included, the use of interventions and the allocation of participants to sub-groups (Gorard, 2013). Before selecting the research design for this research, multiple design alternatives were considered. Different types of design include 'descriptive', 'exploratory' and 'explanatory' or 'causal' designs (Saunders et al., 2019). Descriptive projects focus on capturing the nature of reality and describing the problem at hand, while exploratory projects discover insights and generate ideas about problems and explanatory projects aim to provide support for causal relationships between variables (Awang, 2012). Although Toshkov (2016) notes that some approaches lie between the exploratory and descriptive designs, as for example, some exploratory approaches include extensive description of phenomena.

Exploratory research designs are forwarded by Stebbins (2001) as valuable methods to generate knowledge, which do not assume that an existing theory can explain all events and do not assume that all aspects of the social world have been identified and labelled. Such approaches are particularly valuable to study under-researched topics or populations that are difficult to access. However, this method often requires that the researcher exercise caution concerning the generalisation of findings to different contexts.

Wrenn et al. (2007) note that descriptive research can provide valuable insights concerning how individual traits and characteristics correlate with preferences or behaviours. Thus, this form of research can reveal similarities and differences amongst customers based on their prior history and demographic characteristics. However, when using such designs, cases that are exposed to high and low levels of the independent variable may be less comparable, due to the multitude of confounding variables that coincide with the independent variable. Gerring (2005) contends that if

the research aim is to extend theory by understanding whether a variable impacts on another, confidence in the validity of research findings increases when the design includes construct validity and when the evidence is achieved through a difficult testing system. Such aspects are common features of explanatory designs, which prioritise the collection of evidence to favour one causal explanation over alternatives.

6.3.2 The Adopted Research Design: Explanatory Approach

This research design follows an explanatory approach for four reasons. First, utilising an explanatory approach will highlight the underlying patterns that guide customer behaviour across a variety of contexts, thereby increasing the general applicability of the insights. Second, previous studies have tested the variables in this study in experimental contexts, thereby providing more confidence in the measurement of the constituent parts of the model. This indicates that more pertinent research questions concern how the variables relate to each other, rather than the description or exploration of the concepts. Third, in order to forward empathetic apologies as effective recovery tactics, their effects must be separated from a variety of alternative responses and covariates that might be more influential of customers' revenge desires. Thus, an explanatory design, which attempts to isolate one cause from others enables the researcher to distinguish between the effects of the focal independent variable and the other variables. Fourth, one of the dominant issues in the service recovery literature concerns the clarification of the underlying mechanisms between recovery strategies and customer revenge, which fundamentally concerns understanding why effects occur.

6.3.3 Methodologies

A multitude of methodologies can be used to assess research questions in social science, which can involve varying levels of qualitative and quantitative methods and analyses. Surveys, experiments, secondary data analysis, interviews and ethnography represent some of the most common methodologies in marketing research. Qualitative methods such as in-depth interviews and ethnographical studies can be considered to be appropriate when the researcher wishes to better understand the nature of the concepts of interest and can be used to explore rare phenomena that occur within particular timeframes, firms and industry contexts (Belk, 2007). Such methodologies can be used to unpack constructs that may be embedded within organisations or explore aspects of constructs that have been overlooked in previous research (Belk, 2007). Qualitative methods can be used to develop theory by drawing out key themes, which are contextually sensitive and arise from immersion in the field (Glaser and Strauss, 1967). However, when the research project focuses on testing associations between combinations of variables that have been measured in previous studies, quantitative approaches can present more efficient ways of testing relationships across large samples of cases.

Surveys and experiments aim at providing replicable findings using highly systematic approaches. This was highly compatible with the research objectives of extending the conceptual model of service recovery from double deviation to include different constructs that had already been studied in the service recovery context. The maturity of the model means that there are multiple themes that have been explored. Therefore, this project focuses on establishing the size of associations between existing constructs, which is a dominantly quantitative issue. Moreover, the aim of the

study was to generate findings that would generalise across multiple contexts and generate insights that could be applied to a variety of service types. Therefore, surveys and experiments were considered as the two most relevant options for this research.

Surveys can be particularly appropriate to study questions concerning the description of variables, the clarification of the relationship between variables and, in the case of longitudinal designs, predictive relationships (Creswell and Creswell, 2017). In comparison, experiments can support claims about the impact of one variable on another, by isolating the predictor and utilising manipulations to assess the relationship between the variables. In the service recovery context, survey designs often take the form of retrospective experience studies, in which customers recount failure experiences and report their perceptions using Likert measures. Quantitative survey methods afford multiple advantages over qualitative methods. The use of quantitative surveys can ensure the expedient and cost-effective collection of data concerning many cases in the population and can ensure high ecological validity (Creswell and Creswell, 2017). Survey designs are also frequently utilised in the marketing literature, meaning that the relevant measurement instruments have been developed and refined. Equally, multiple source materials for conducting and analysing surveys are easily accessible. However, surveys often provide descriptive data and often preclude the isolation of the effects of the dependent variable.

Experimental designs benefit from multiple advantages. Experimental methodologies can be considered as appropriate tools to investigate causal associations (Webster and Sell, 2014) and are frequently adopted in service recovery research (Grégoire and Mattila, 2021). Therefore, the comparability of the results of this study with previous studies can be enhanced by using experimental

methodologies. Researchers note that participants vary in the extent to which they can accurately recall the emotions experienced during an event (Aaker and Lee, 2001). Therefore, by minimising the time between the event and the collection of customers' self-reported responses, the experimental method can offset the effects of recall bias.

Moreover, through restriction of the information provided to the participants concerning the experimental task, the likelihood of rationalisation tendencies can be exposed and reduced (Lucas and Ball, 2005). Participants may also display cognitive consistency biases, in which an individual's beliefs, cognitive evaluations or actions are altered to display consistency with related beliefs, evaluations or actions possessed by the individual (Ajzen et al., 1979). These biases can be elicited through experimental design, thereby enabling the researcher to control their effects and rule out alternative explanations for causality (Clark and Kashima, 2007). However, the external validity of experiments is often limited, due to the restricted nature of the design. Experiments can also be costly, time-consuming and demanding for participants, which may limit the realism of experiments and poses ethical issues.

In this study, experimental designs were selected for three reasons. Experimental designs afford multiple advantages over the retrospective survey approach, such as the reduction of biases due to participants' desires to achieve cognitive consistency and rationalise previous actions, as well as participants' limited recall abilities (Grewal et al., 2008). While real experiences are highly complex systems, involving a multitude of confounding variables, experimental methodologies can be utilised to create environments in which many external factors are held constant, while the independent variable varies (Cronbach, 1957). For example, a customer's retrospective hotel experience could be influenced by confounds such as

the nature of the customer-firm relationship, the brand equity of the firm, previous experiences with the firm, idiosyncratic employee behaviours, other customers and additional recovery tactics. These variables can be controlled within experimental contexts to provide further support for the hypothesised cause. Next, the discussion moves to the determination of the appropriate form of experiment to test the hypothesised causal relationships.

6.4 Experiments

Experiments may be conducted in a laboratory or in the field. Laboratory experiments focus on the exclusion of the noise associated with the real world that can obscure results. Field experiments aim to decrease the disparity between the experimental findings and the findings that would occur in the real world. This section explores the two alternative designs: field and scenario-based experiments, by outlining the advantages and limitations of each approach in Section 6.4.1 and Section 6.4.2, respectively. This will inform the selection of the appropriate experimental design to test the hypotheses. Section 6.4.3 then provides the rationale for the adopted method. The clarification of the decisions made at each point of the design process will contextualise the research findings, which will provide a balanced view of the findings. In addition, the likelihood of future replication of the findings will be enhanced by a detailed account of the experimental design.

6.4.1 Advantages of Field Experiments

Field experiments can afford greater external validity or ecological validity, such that the findings in the experiment may be more applicable to behaviours and events

outside of the laboratory. Indeed, by manipulating levels of recovery in a real service context, researchers gain an understanding of the effectiveness of manipulations in the presence of prior customer-firm relationships, the confounds associated with the environment and the employees involved in the encounter. The emersion of customers in the real service environment may also encourage customers to provide more naturalistic responses. For example, less frequent, natural responses can be recorded in field experiments, such as the cancellation of service prior to service recovery (see Wei et al., 2020). However, field experiments are rarely feasible, due to the managerial and ethical limitations of instigating service failures within real service encounters (Roggeveen et al., 2012). Moreover, the relaxation of the extent of control over potential confounds leads causal claims to be more tentative.

6.4.2 Advantages of Laboratory Experiments

Laboratory experiments have been utilised to respond to a range of research objectives in the service recovery field (Hess, 2008; Hogleve et al., 2017; You et al., 2020). Indeed, meta-analyses indicate that the laboratory experiment is one of the most frequently adopted research designs to examine the effect of recovery tactics on customer variables (Gelbrich and Roschk, 2014). By conducting a randomised control trial (RCT) in a highly controlled context such as a laboratory, human bias can be reduced. To conduct an RCT, the researcher randomly assigns each participant to one of two or more groups, before exposing an experimental group to an experimental manipulation. In the control group, the independent variable is absent, whereas the independent variable is present in the treatment group (Bryman, 2016). Often, the researcher will measure the dependent variable before and after exposure to the

treatment condition, such that a significant change in the dependent variable provides support for the claim that the independent variable affects the dependent variable.

By conducting the testing process in a laboratory environment, the researcher can control the surrounding environment to attempt to discount rival explanations for the effect on the dependent variable. Indeed, Bryman (2016) notes that the value of the control group lies in the attempt to eliminate rival explanations for the change in the dependent variable. Alternative explanations can include participants' history, participants' familiarity with the experimental procedure, instrumentation (i.e., the administration of the measures) and the mortality and maturation of participants (Rosnow and Rosenthal, 1997). Moreover, the random assignment of participants to groups helps to offset the criticism that the effects arise due to participants' self-selection.

In addition to conducting studies in a laboratory, a further method for controlling the environment could be to run an online experiment. Online experiments enable the researcher to collect a large amount of responses at a lower cost and faster pace, while expanding the recruitment pool beyond university students (Kraut et al., 2004). This method also may enable the researcher to provide individual-specific payments, reduce the likelihood that the respondents interact with each other and reduce the likelihood of recruiting respondents who are highly aware of experimental methods (Horton et al., 2011).

6.4.3 The Adopted Experimental Design: Online Laboratory Approach

This section describes the rationale for the use of the online laboratory approach, as well as the decision to develop two scenario-based experiments and one behavioural

experiment. The experiments included in this research utilise the laboratory approach, due to the desire to control for confounds, maintain separation between the researcher and research participants, the ethical limitations of manipulating apologies in real service encounters and the limited generalisability of studies conducted within specific firms. However, the experiments took the form of online experiments as online experiments can reduce participants' perception of social pressure to participate and increase the accessibility of the study for geographically remote participants (Birnbaum, 2004).

Online scenario-based experiments also afford practical advantages over alternative approaches. Research suggests that participants may be sensitive to how the experimenter might interpret their responses to experimental stimuli (Baumeister et al., 1979), which can lead to socially desirable responding (Steenkamp et al., 2010). In this regard, studies indicate higher levels of self-disclosure through computer-mediated rather than face-to-face communications (Moon, 2000; Joinson, 2001). Similarly, higher response rates can be obtained for sensitive questions when utilising online data collection methods (McCabe, 2004). One of the axiological decisions was to attempt to separate the researcher's views from the participant responses. In this regard, online experiments enable the researcher to remain absent during the participant's completion of the experiment, thereby ensuring a higher level of anonymity than laboratory studies (De Quiltdt et al., 2018). Online experiments are frequently adopted in service recovery research and are also a highly cost-efficient way to conduct experiments. In addition, the research was conducted during the Covid-19 pandemic, which prohibited face-to-face data collection methods.

6.4.4 Structure of Experiments

The research hypotheses were tested using three scenario-based experiments. The use of three different studies ensured that a complex conceptual model could be tested in an efficient way, without requiring participants to respond to lengthy and repetitive measurement instruments. Moreover, the measurement of different parts of the model including cognitions, emotions and behaviour within different scenarios and contexts provided further support that the findings were replicable. In what follows, the three phases of data collection are summarised, namely pilot testing (phase one), testing the inferential mediating mechanism (phase two) and testing the behavioural consequences (phase three).

Phase one included conducting two pilot studies to ensure that the experimental manipulations were effective within the different service contexts. Testing manipulation checks in the initial phases of data collection ensures that manipulations can be altered in a timely and cost-effective manner, before recruiting large samples of respondents (Perdure and Summers, 1986). Moreover, the pre-tests provided the opportunity to assess the measures before they were included in the mains studies.

Pilot Study 1 tested the empathy of apology manipulations in the wine prize draw context and Pilot Study 2 tested the empathy of apology manipulations in the hotel context. In Pilot Study 1, the empathy of apology manipulation was varied at four levels, to establish which manipulation would effectively influence customers' perceptions of empathy and whether customers perceived different gradations of empathy. In Pilot Study 2, the empathy of apology manipulation was varied at three levels, to ensure that the compensation manipulations in Study 1 could be pre-tested. It was necessary to position Pilot Study 1 before Pilot Study 2, as Pilot Study 2 included

fewer empathy conditions to create space for the compensation manipulations. The monetary overcompensation conditions were tested in the hotel context, as this ensured higher comparability of the findings with previous overcompensation research.

Phase two included testing the effect of the independent variable on the dependent variable and assessing mediation. Studies 1 and 2 were hypothetical scenario-based experiments, which examined the conceptual model in the hotel service context. The hotel context was selected for four reasons. First, scenario-based experiments indicate that customers' motivational attributions are salient in the hotel context (Basso and Pizzutti, 2016). Second, hotel scenarios are utilised in studies of customer responses to different levels of compensation (Gelbrich et al., 2015) and types of recovery tactic (Lee et al., 2021), which facilitates the control of the effect of compensation. Third, prior studies document customers' engagement in revenge behaviours such as vindictive complaining and vindictive NWOM following hotel failures (Gelbrich et al., 2010). Fourth, testing the relationships in the hotel context ensured that insights were gleaned as to the way the variables interacted, prior to testing them in a more novel context.

Phase three included Study 3, which tested a novel, behavioural measure for switching to a more expensive alternative, during an ostensibly real, online, prize draw failure experience. Study 3 also assessed the effects of the emotional and intentional variables on participants' actual behaviour, as well as exploring a contrasting context. Given that the wine prize draw context had not been explored frequently in prior service recovery studies, the wine prize draw context contrasted with the hotel service context. Moreover, service delays and lack of availability of goods accounted for 19.4% and 23.8%, respectively, of complaint issues amongst customers surveyed for the UKCSI

in 2022 (The Institute of Customer Service, 2022). This indicates that an understanding of how to deal with service delays and stock-outs may exert an impact on the satisfaction of a large volume of customers. The behavioural nature of the study also provided a point of comparison with customers' hypothetical responses. Moreover, the outcome nature of the failure also presented an opportunity to test whether the model would apply to failures that were more utilitarian in nature. Figure 6.1 illustrates how each of the three main studies tested a different part of the conceptual model.

The use of multiple studies afforded the opportunity to discount alternative mechanisms by which service recovery from double deviation affects the dependent variable (Grégoire et al., 2018), while introducing potential boundary conditions to the effects of recovery tactics (You et al., 2020). The use of both scenario and behavioural experiments facilitated the examination of different parts of the conceptual model, as well as enhancing the generalisability of the findings to customers' actual behavioural responses. Moreover, the use of two different contexts enhanced the generalisability of the conceptual model to different services and failure types. The hotel context represented a frequently utilised context which ensured comparability with previous service recovery studies. In contrast, the wine prize draw context drew on innovative experimental designs utilised to study consumers' post-choice regret, which enhance the realism of the experiment by involving participants in prize draws (Hassan et al., 2019).

In every study, participants read the failure and recovery manipulations and then were required to respond to a set of attention, manipulation and realism checks. Each study then included a set of response variable measures, demographic measures, a question concerning the study purpose and the explanation of the study purpose.

However, Study 3 did not include a realism measure as this could have encouraged participants to question the realism of the study. Figure 6.1 presents the experimental designs and figures 6.2, 6.3 and 6.4 present the parts of the conceptual model that are tested in each study. Each study focuses on a different part of the conceptual model. Study 1 focuses on assessing whether empathy of apology can influence revenge desires and how the effects of empathy of apology compare with monetary overcompensation. Study 2 focuses on exploring the failure intentionality boundary condition and Study 3 considers the linkages between anger, revenge desires and revenge behaviour.

Figure 6.1 Research Design

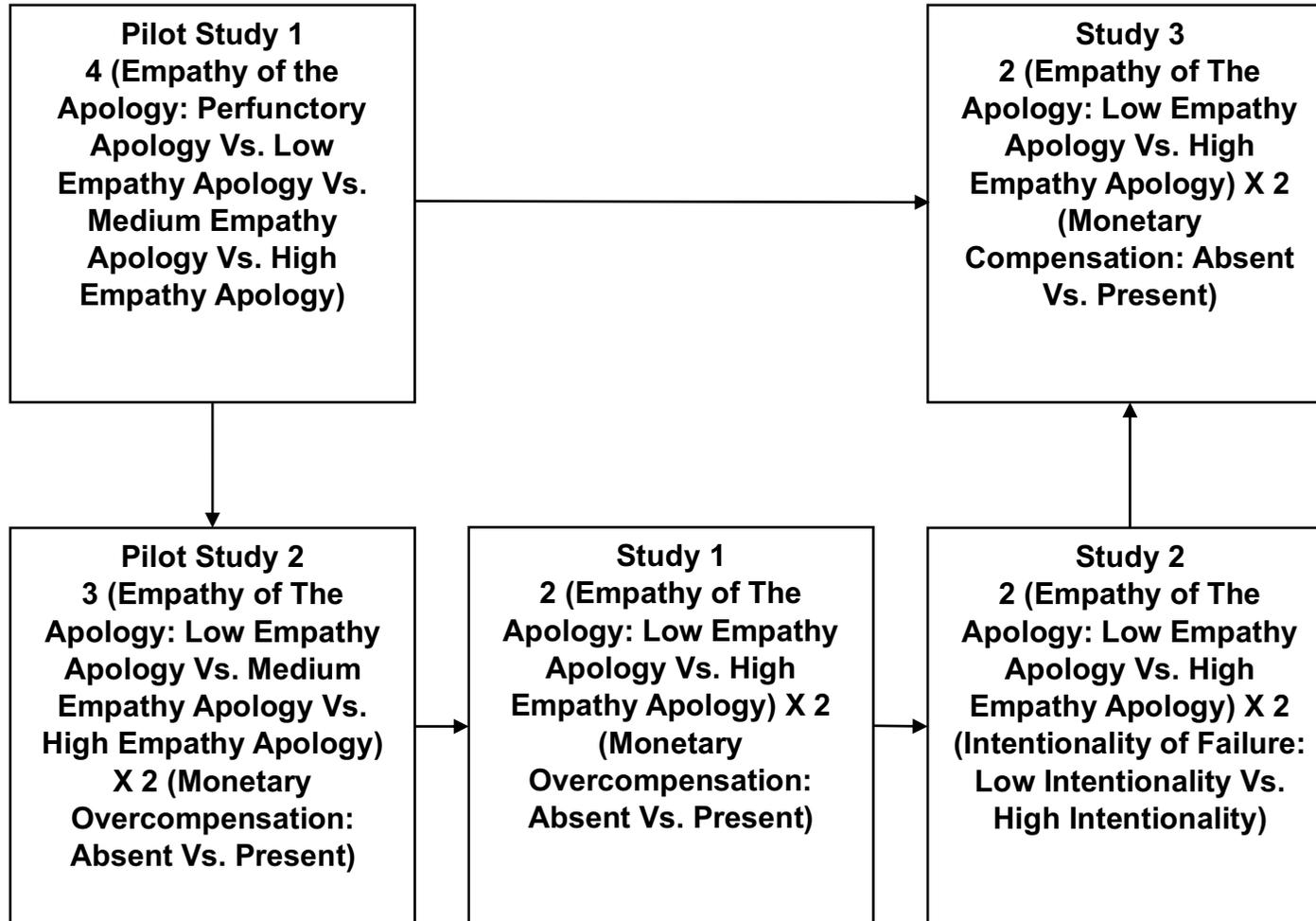


Figure 6.2 STUDY 1: Variables Included in the Experiment

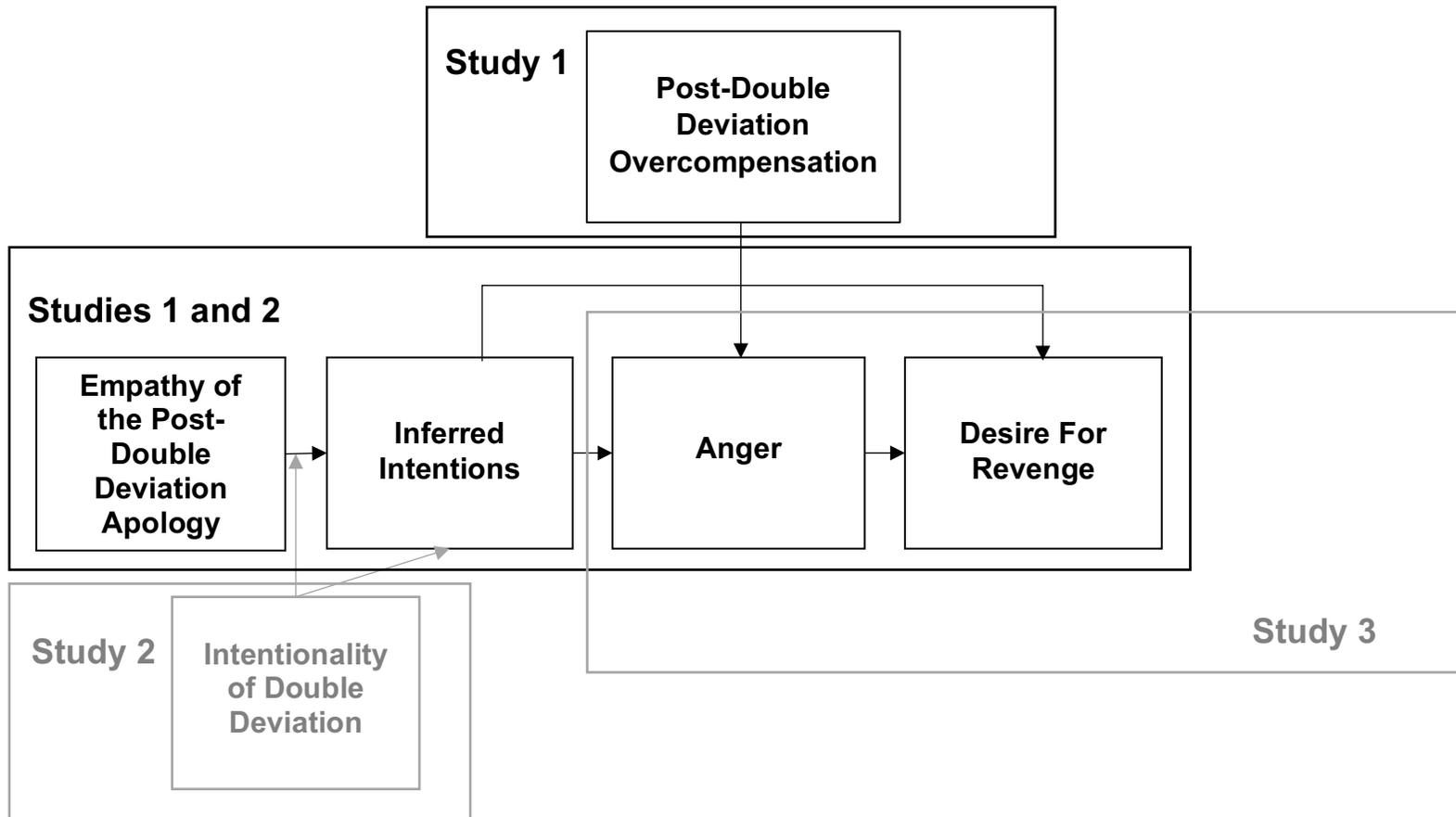


Figure 6.3 STUDY 2: Variables Included in the Experiment

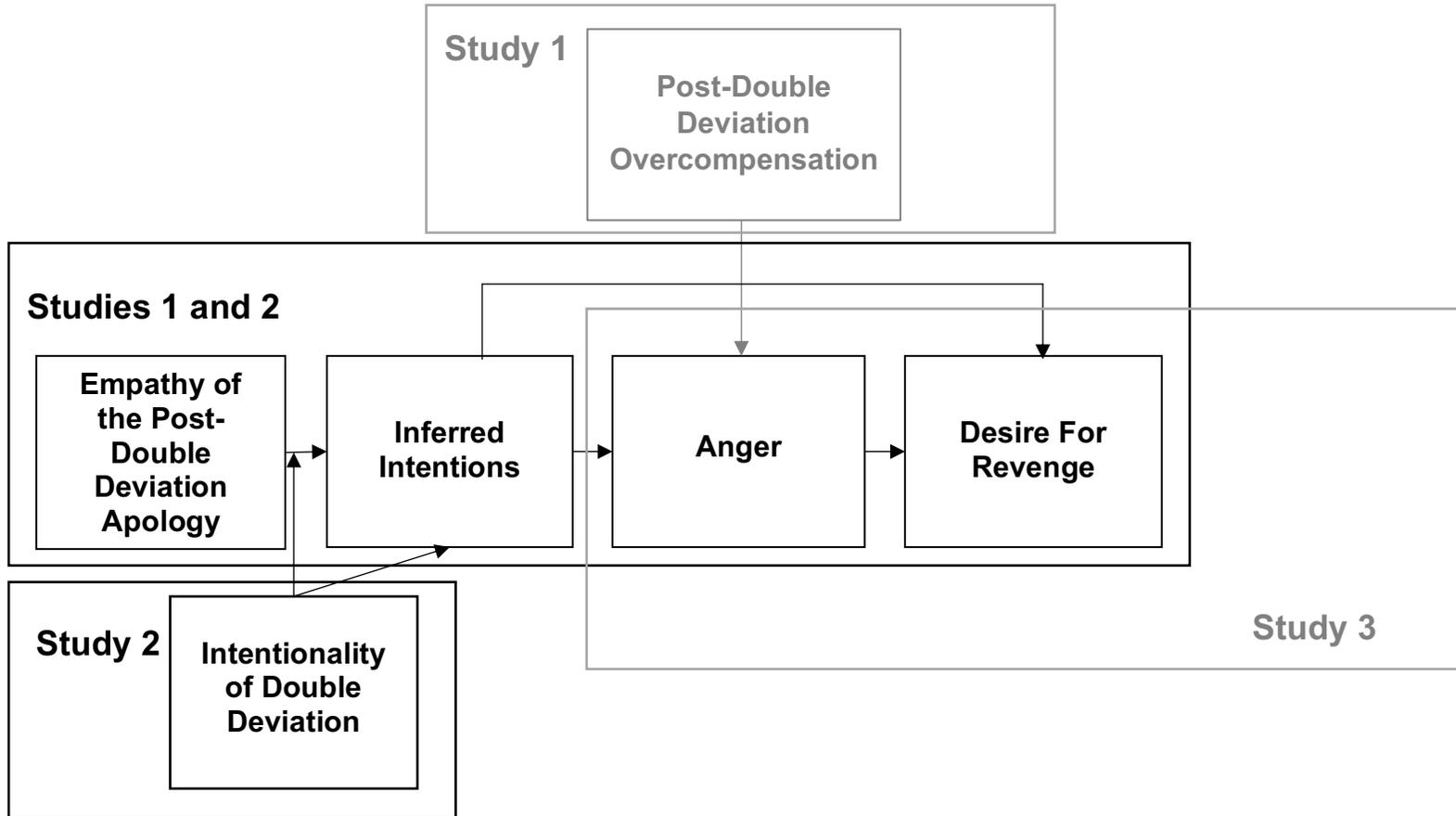
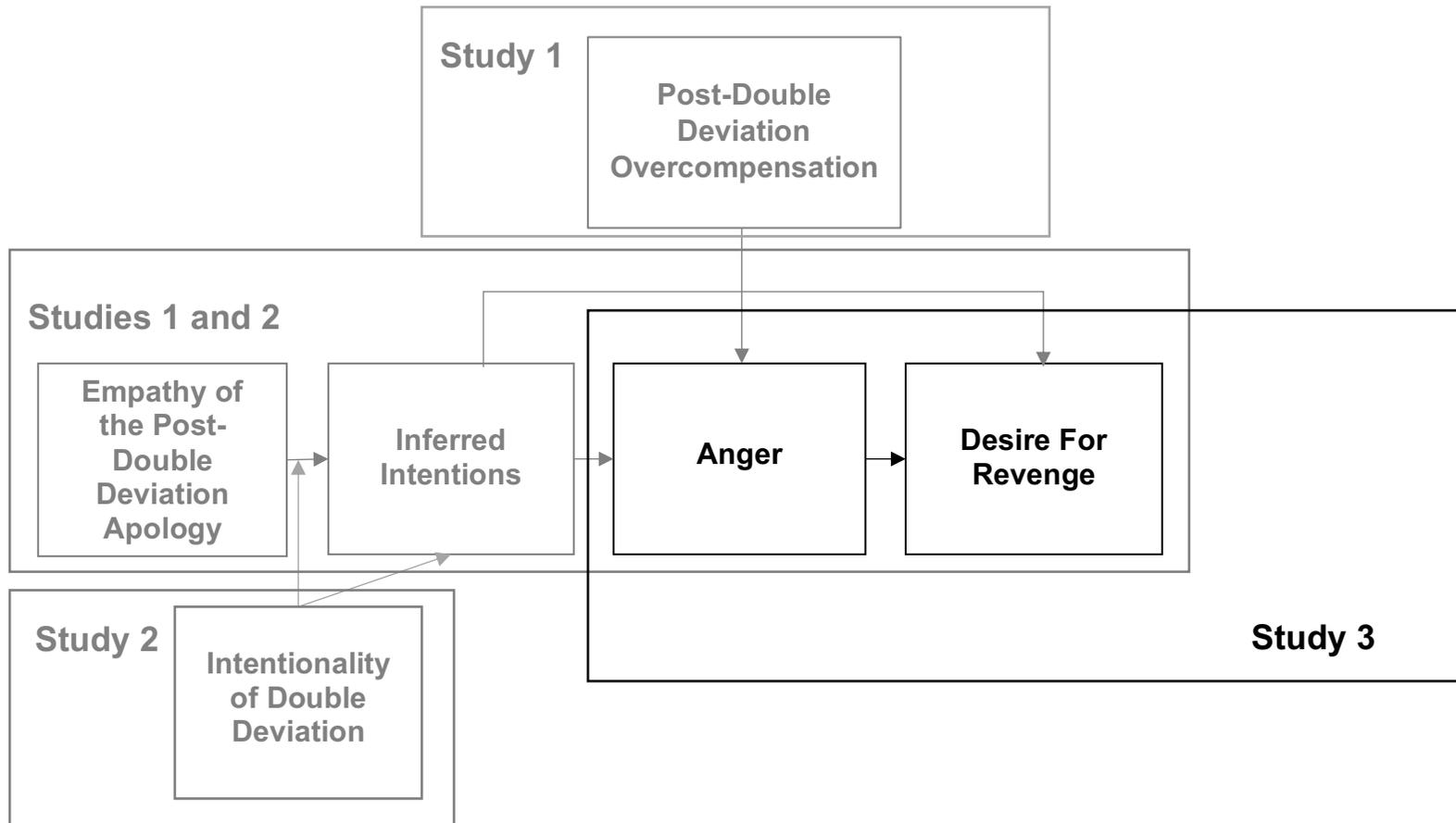


Figure 6.4 STUDY 3: Variables Included in the Experiment



6.5 Stimuli, Measures and Manipulation checks

Section 6.5.1 begins with a description of the stimuli that were utilised to test the hypothesised associations in studies 1, 2 and 3. This will provide contextual information about the way in which evidence was collected to support the findings, which will enable researchers to assess the value of the findings. Each study is discussed in turn, explaining how each study builds and extends on the previous study. This leads into Section 6.5.2, which discusses the manipulation checks and Section 6.5.3 discusses the attention checks, to provide evidence that the experimental manipulations represented the variables they were intended to represent. Then, Section 6.5.4 explains the perceptual measures that were utilised to represent the concepts in the latter phases of the conceptual model. Section 6.5.5 discusses the demographic and previous purchasing behaviour measures that were included.

6.5.1 Stimuli

Study 1

Study 1 included a hypothetical scenario-based experiment that was guided by two aims. The first aim concerned the clarification of the sequentially mediated path underlying the relationship between the perceived empathy of the apology and customers' desires for revenge. This involved testing the central portion of the conceptual model. The second aim was to assess whether there was a direct effect of overcompensation on anger or overcompensation influenced the inferred motives of the firm. Study 1 included a 2 (empathy of apology: low empathy of apology; high empathy of apology) x 2 (overcompensation: absent; present) between-subjects design.

The double deviation and recovery scenarios in studies 1 and 2 are presented in appendices 6.1-6.2. Each scenario described a situation in which a customer had pre-booked a hotel stay but discovered on arrival that there would be a three-hour delay before they could enter their room. The customer complained to a hotel employee and the employee failed to resolve the problem. Finally, participants read a service recovery from double deviation scenario, which included the apology and monetary compensation manipulations. The scenarios were based on the scenarios included in Basso and Pizzutti's (2016) study of customer responses to apologies and promises after double deviations and in line with Liu et al. (2019), the price and duration of the hotel stay were stated.

The empathy of apology manipulations were provided in the wording of the recovery scenarios. The manipulations were pre-tested in Pilot Study 2 and were found to be associated with statistically significantly different ratings of perceived empathy. The specific wording of the empathy manipulations was adapted from the manipulations used in studies conducted by Fehr and Gelfand (2010), Roschk and Kaiser (2013) and Antonetti et al. (2018). The wording of the manipulations controlled (1) the extent to which the company accepts responsibility and asks for forgiveness (Coombs and Holladay, 2008), (2) the hopefulness of the message (Xiao et al., 2020) and (3) the use of employee narratives vs. rational arguments (Laer and de Ruyter, 2010).

Study 2

Study 2 built on Study 1, by examining the central portion of the model in more detail. Additional alternative mechanisms for the effects of empathetic apologies were

measured to consider alternative explanations for the effects of empathetic apologies. Study 2 also tested a potential boundary condition of failure intentionality, to establish the pervasiveness of the effect of empathetic apologies. Appraisal theory indicates that negative circumstances are conducive to the formation of appraisals (Duhachek, 2005). Equally, service recovery researchers argue that motive inferences become more important when service outcomes are unfavourable (Lastner et al., 2016). Therefore, customers may be more inclined to consider motives when the failure is more intentional. Equally, Basso and Pizzutti (2016) find that recoveries that signal integrity are more effective when the failure indicates a lack of integrity. Applying this line of reasoning to the current research, if the need to reduce customers' inferences of negative motives is high, then the efficacy of raising the empathy of the apology may increase. Thus, the aim of Study 2 was to establish whether the effect of the empathy of the post-double deviation apology is altered under different failure intentionality conditions.

Study 2 utilised a 2 (empathy of the apology: low empathy of apology; high empathy of apology) x 2 (intentionality of double deviation: low intentionality; high intentionality) between subjects design. The extent of intentionality was altered by incorporating a sentence into the double deviation scenario that stated the service employee's willingness for the failure to take place. This approach resembles the manipulations utilised by Foreh and Grier (2003) and Joireman et al. (2013), in which rather than overtly describing the motives of the employee (as in Lastner et al., 2016), the circumstances indicate the intent of the employee. Joireman et al. (2013) capture a high intentionality scenario by informing participants that a service delay is caused by a manager's instruction of an employee to favour a customer who is purchasing a

more expensive item. In contrast, in the low intentionality scenario, the delay occurs because the employee seeks to find the customer a better deal. Nazifi et al. (2021c) manipulate intentionality by informing participants that a flight overbooking ensues due to a systematic overbooking policy (i.e., high intentionality failure) or a mechanical failure (i.e., low intentionality failure).

In this thesis, high intentionality was signalled by providing an indication that the employee engaged in less effort to prevent double deviation and therefore, was more willing for the failure to occur. This manipulation was adopted because customers often do not have access to intentionality information, but infer the intent of the actor from the action (Reeder et al., 2002). The effort-based manipulation appeared an appropriate means to achieve this as Weiner (1985, p. 554) argues that “*failure due to lack of effort meets the criteria to infer personal responsibility, inasmuch as not trying is carried out purposively, knowingly, recklessly, and/or negligently*”. Moreover, previous studies of intentionality in service recovery describe intentionality as information concerning the extent to which the actor wants to achieve a particular outcome (e.g., customer satisfaction). Therefore, a lower level of effort should signal to the customer that the employee displays a lower willingness or desire to satisfy the customer. While the manipulation in this thesis did not explicitly state the intention of the employee, the aim of the manipulation was to provide realistic conditions in which customers would be more likely to infer intent.

Study 3

The main aim of Study 3 was to establish whether changing the failure from a process to an outcome failure would reduce the effect of empathy of apology. A further aim was

to rule out an alternative emotional mediator of helplessness to provide further empirical support for the mediating role of anger in the model of service recovery from double deviation. The study also incorporated a measure of revenge behaviour to further validate the model of service recovery from double deviation. Study 3 included a manipulation of simple compensation, which enabled the effect of the empathy of apology to be compared with the effect of compensation. Moreover, given that studies 1 and 2 were scenario-based experiments, Study 3 included a behavioural experiment design, which provided the opportunity to enhance the external validity of the findings.

Studies examining the effect of providing monetary compensation or apology indicate that monetary compensation may be more effective at raising post-failure satisfaction, PWOM and repurchase intentions (Weber and Hsu, 2020). Equally, Roschk and Kaiser (2013) show that empathy of the apology may be less effective at improving service recovery satisfaction in the face of outcome failures. Therefore, Study 3 explores whether the effect of empathy of apology on revenge desires and behaviours is moderated by the type of failure and extent of utilitarian recovery.

Three design features were included in Study 3 to enhance the realism of the study. First, the participants were led to believe that they were interacting with a real service provider. Second and in line with Anthony and Cowley's (2012) methodological approach, participants were led to believe that their choices had real consequences, which affected the distribution of rewards following the experiment. This may have blurred the perceived boundary between the experimental activities and real life, as the participants were led to believe that their actions could impact on the service provider after the study. Given that Winer (1999) cites the lack of long-term consequences for subjects as a major threat to external validity, this should have

encouraged participants to provide natural responses. Third, the inclusion of an ostensibly real service failure reduced the likelihood of demand effects.

Study 3 included a 2 (empathy of apology: low empathy of apology; high empathy of apology) x 2 (monetary compensation: present; absent) between-subjects design. The double deviation and recovery scenarios for Study 3 were pre-tested in Pilot Study 1 and are provided in appendices 6.3-6.4. Pilot Study 1 included a hypothetical scenario-based version of the Study 3 design, which only included four empathy of apology conditions and did not contain any compensation manipulations. The low and medium empathy conditions of the Pilot Study were included in Study 3, as these conditions were found to be the most effective manipulations of empathy of apology in Pilot Study 1. The level of monetary compensation was £29 and was determined by the rounded average level of the mean and median of compensation expectations stated by participants in Pilot Study 1. The experimental design was adapted from a study by Fitzsimons (2000), which captures participants' responses to stock-outs by artificially manipulating a stock-out experience with a CD retailer.

The first stage of the experimental manipulations included a brand preference manipulation, which was pre-tested in Pilot Study 1. The brand preference manipulation was necessary to measure customers' desires to 'switch to a sub-optimal alternative' (SSA) at the end of the study. SSA can be defined as switching to an alternative service provider that "*does not objectively maximize the value function*" (p. 440). Study 3 extended Bechwati and Morrin's (2003) approach, by subjecting customers to ostensibly real out-of-stock notifications and service recovery efforts and measuring whether customers switched to a brand that was generally less preferable.

To achieve the brand preference manipulation, participants inspected wine price lists for 'Richard Smith Wines' and 'Stewart Jones' Cellar' and chose the brand with which they would prefer to conduct an online shopping experience. Participants who selected Stewart Jones' Cellar were informed that the Stewart Jones' Cellar study was oversubscribed, before proceeding to a shopping experience with Richard Smith Wines. Next, participants received a message informing them that they were to be entered into a prize draw and needed to select a product from three prize choices, which were displayed in a screenshot. The prizes were three wine bottles labelled A, B and C; each prize cost £29.95. The bottle label for prize A included curved writing and logos on the bottle, whereas prizes B and C were angular. A hotspot function was embedded into the screenshot to ensure that participants' most recent click could be recorded.

Prize A was presented in such a way as to encourage many participants to actively prefer this product to the others in the line-up. The label of Prize A contained more curved writing than the other two bottles of wine to improve the appeal of the drinks packaging (Westerman et al., 2012). Studies also suggest that more saturated packaging and product colours can encourage attention (Kauppinen-Räsänen, 2014) and arousal (Blijlevens et al., 2012). Moreover, customers appear to be more likely to prefer products and to pick up products from the shelf if the packaging colours deviate from the norm (Schoormans and Robben, 1997; Garber et al., 2000). Therefore, using photo-editing software, the picture of prize A was edited to include more saturated colours. Although the Pilot Study indicated that the manipulation did not lead to a unanimous preference for prize A, the out-of-stock notification was expected to also

elicit disappointment for participants who selected B or C. Therefore, the experimental manipulation from the Pilot Study was retained in Study 3.

Before participants viewed the out-of-stock notification, they were asked to respond to an attention check which asked customers to report the language that appeared on the wine bottles. Participants were also required to report their preferred prize (A, B or C) and why they chose the product, to intensify the feeling of disappointment following the stock-out. The former reminded the customers of the price of the wine prizes and the latter was utilised to encourage customers to reflect on their choice.

The double deviation manipulation took the form of two separate messages. The first message notified the participant that the prize was unavailable and the following message informed participants that they would be entered into a prize draw for prize D, which was valued at £6.99. Participants were then exposed to a double deviation service recovery scenario, which included the empathy of the apology and monetary compensation manipulations. The experimental conditions were followed by a set of pre-tested measures, which will be discussed in the next three sections.

6.5.2 Manipulation Checks

The studies included similar manipulation checks. Appendices 6.5 and 6.6 contain the full list of measures and manipulation checks utilised in the wine prize draw and hotel studies, respectively. The appendices also specify to which experiment the measures and manipulation checks applied. This section provides a summary of the manipulation checks used throughout data collection. Manipulation checks were included to establish whether customers experienced a double deviation and perceived the levels

and types of recovery that were provided. The double deviation manipulation was measured using a three-item measure of transaction-specific dissatisfaction, which was applied both after the initial failure and after the double deviation (Grégoire and Fisher, 2006). To assess the efficacy of the empathy of apology manipulation, participants' perceptions of the empathy of apology were captured utilising a measure adapted from Fehr and Gelfand's (2010) study. In Study 1, a manipulation check was also included to check that customers were aware of the level of compensation provided (adapted from Gelbrich et al., 2015), which required participants to report how much compensation they received. Moreover, participants were required to state how many times the manager apologised using a manipulation check adapted from manipulation checks utilised by Roschk and Kaiser (2013) and Antonetti et al. (2018). The realism and believability of the scenarios was assessed using the four-item realism measure adopted by Gelbrich et al. (2015).

In Study 2, a manipulation check was included to measure the customer's perception of the extent to which the double deviation condition was intentional (adapted from Varela-Neira et al., 2014). Study 3 included the manipulation check for the level of compensation the organisation provided. Study 3 also included a measure of the perceived immediacy of the compensation that was included in the revenge behaviour measure. This ensured that participants did not differ in their perceptions of how soon they would be able to receive the compensation. The reliability estimates obtained from exploratory factor analyses of the realism, perceived empathy and perceived intentionality variables are provided in appendices 6.7-6.16. Table 6.2 presents the mean levels and Cronbach's alpha values of perceived realism, perceived empathy and perceived intentionality, as well as the results of the independent

samples t-tests that were used to test the effectiveness of the experimental manipulations. The results indicate that the low and medium empathy of apology conditions were effective manipulations and that the manipulations for simple and overcompensation were effective. The table also shows that the simple and overcompensation manipulations significantly influenced perceptions of empathy. Although this was not an intended consequence of the manipulations, this finding is consistent with economic studies manipulating both compensation and apology (see Haesevoets et al., 2013).

Table 6.2 Manipulation Check Means by Experimental Condition

Variable	Study M	Cronbach's alpha	PA M	LEA M	MEA M	HEA M	NC M	SC M	OC M	LI M	HI M
PILOT STUDY 1 Perceived Realism	5.48	.84									
PILOT STUDY 1 Perceived Empathy of The Post-Double Deviation Apology	5.12	.93	5.05	4.93	5.61 t1*(142) = 2.50 t2**(135) = 3.03	5.51 t2*(135) = 2.45	N/A	N/A	N/A	N/A	N/A
PILOT STUDY 2 Perceived Realism	5.12	.78									
PILOT STUDY 2 Perceived Empathy of the Post-Double Deviation Apology	4.89	.96	N/A	3.60	5.58 t2***(254) = 10.62	5.48 t2***(256) = 9.93	N/A	4.73	5.09 t4*(385) = 2.11		
STUDY 1 Perceived Realism	5.94	.84									
STUDY 1 Perceived Empathy of the Post-Double Deviation Apology	3.84	.93	N/A	2.89	4.79 t2***(279) = 11.64	N/A	N/A	3.60	4.07 t4*(279) = 2.40	N/A	N/A
STUDY 2 Perceived Realism	6.01	.89									
STUDY 2 Perceived Empathy of the Post-Double Deviation Apology	4	.93	N/A	3.07	4.93 t2***(277) = 10.16	N/A	N/A	N/A	N/A		

STUDY 2 Perceived Intentionality of the Double Deviation	4.1	.60								3.12	5.08 t5***(277) = 12.82
STUDY 3 Perceived Empathy of the Post-Double Deviation Apology	1.14	.92	N/A	1.07	1.20 t2***(394) = 3.97	N/A	1.00	1.27 t3***(394) = 8.31	N/A	N/A	N/A

Notes: M= mean, PA = perfunctory apology, LEA = low empathy apology, MEA = medium empathy apology and HEA = high empathy apology, NC = no compensation, SC = simple compensation, OC = Overcompensation, LI = low intentionality and HI = high intentionality. The '**' indicates the significance level of the difference between experimental groups. '*' denotes p < .05, '**' denotes p < .01 and '***' denotes p < .001. The number after 't' indicates the experimental group with which the condition is compared. 't1' denotes comparison with the 'perfunctory apology' group, 't2' denotes comparison with the 'low apology' group, 't3' denotes comparison with the 'no compensation' group, 't4' denotes comparison with the 'simple compensation' group and 't5' denotes comparison with the 'low intentionality' group.

In addition to the manipulation checks that were utilised across multiple studies, in Study 1, a paired samples t-test indicated that participants perceived the service experience to be a double deviation, as there was a significant difference in the mean values of dissatisfaction (dissatisfaction at t1 M = 5.58, dissatisfaction at t2 M = 5.81, $t(280) = 3.63$, $p < .001$). The control measure for perceived intensity of apology that was included in Study 1 indicated that similar levels of intensity were perceived as only three participants selected an option other than “once” in response to the question concerning how many times the manager apologised. These respondents were excluded from analysis. Participants who reported an incorrect level of compensation were also excluded from analysis.

An additional manipulation check was included in Study 3 to establish that participants perceived the double deviation to be a failure. The manipulation check was conducted by measuring the level of dissatisfaction following the double deviation. The mean level of dissatisfaction following the double deviation manipulation was 4.09, which is considerably lower than the mean that was obtained following the hypothetical scenario. Responses to the open-ended study purpose question indicated that many participants claimed that they would not be very dissatisfied as they were still gaining something for free. This indicates that customers may be more forgiving of real stock-out situations in prize-draw situations than hypothetical stock-out situations.

To confirm that the double deviation scenario increased the instance of dissatisfaction, a new sample of 100 participants was recruited from the Study 3 recruitment pool to a separate manipulation check study. These participants rated their dissatisfaction following the selection of a preferred prize (i.e., prior to the out-of-stock notification) and the mean level of dissatisfaction was 2.34 on a scale of 1-7. Thus,

customers who did not experience a failure exhibited lower levels of dissatisfaction, indicating that the out-of-stock notification still constituted a failure in the ostensibly real scenario.

6.5.3 Attention Checks

Participants were required to engage in a recall task concerning the scenario, which asked them to recall as much as they could about the service experience (adapted from Bonifield and Cole, 2008). An instructional manipulation check (IMC) was embedded in a realism measure, in accordance with Paas and Morren (2018). The IMC read *“please do not select a number from the dropdown list for this statement”*. This approach mimicked the style utilised by Oppenheimer et al. (2009), in which participants are required to ignore the dominant response protocol of the survey.

The wine prize draw studies included additional attention checks due to the demanding nature of the tasks. Following the selection of their preferred prize, participants were asked to respond to an attention check which asked customers to report the language that appeared on the wine bottles. Participants were also required to confirm which prize they had selected as their preferred prize (A, B or C). Participants who failed the attention checks were not included in the analysis.

6.5.4 Perceptual Measures

To measure the concepts in the conceptual model, the commonly adopted approach of utilising multi-item measures from previous well-established studies was adopted and the effectiveness of the measures was evaluated in the pre-test study (Najafi-Tavini et al., 2022). In designing the response measures, multiple source materials

were consulted. For example, MacKenzie and Podsakoff (2012) recommend that the researcher can offset common method bias by increasing the relevance of the survey to the participant, increasing the temporal separation between measures of theoretically related constructs and reducing the length of the survey. Although the article is targeted towards survey research, MacKenzie and Podsakoff (2012) note that many of the issues discussed remain relevant in experimental research and the issues appear to be particularly relevant, given that this experimental research includes multiple survey measures.

The decision was made to utilise measures from previous research, which included multiple items, as well as a large number of scale points. This is good research practise, because Churchill and Peter (1984) find these characteristics to enhance the reliability of measures. The seven-point Likert scale was used for all the perceptual measures used in the studies. The only exception is the measure of service recovery satisfaction, for which Gelbrich et al. (2015) utilise an 11-point scale. This was necessary to achieve a more accurate reflection of the subtle differences in customer satisfaction ratings corresponding to different levels of compensation and to ensure comparability with prior studies (e.g., Roschk and Gelbrich, 2017). The order of the items within each measure was randomised and non-specialist language was utilised, as well as alteration of the response protocol (Musarra et al., 2021).

The studies included a measure of participants' revenge desires adapted from Grégoire et al. (2010, 2018) and Joireman et al. (2013). An example adapted item includes: "*after what has happened, I would want to... take actions to get the hotel in trouble*" (Grégoire et al., 2010). The conceptual model also incorporates anger as a mediating variable between intentional attributions and behavioural intentions. Thus,

the extent of customers' anger following service recovery from double deviation was captured by a measure of anger adapted from Grégoire et al. (2010). The inferred intentions variable incorporated in Study 1 was the inferred manipulative intentions of the manager during service recovery from double deviation, which was captured utilising a four-item measure adapted from Antonetti et al. (2018).

An aim of Study 2 was to respond to calls for research that elucidates the potential mechanisms for the effects of apologies (Min et al., 2020). Therefore, Study 2 measured the effect of the empathy of the post-double deviation apology on multiple types of inferred firm motives. To achieve the aims of the study, the following inferred intentions variables were included: (1) the inferred benevolent intentions of the manager during double deviation service recovery; (2) the inferred selfish intentions of the manager during double deviation service recovery and (3) inferred selfish motives of the firm during the original service failure. The measures for each of the potential motivational mediators were adapted from Bock et al. (2016).

The most severe adaptations made to the measure were those concerning the selfish intentions variables. Whereas Bock et al. (2016) measure the selfish intentions of the service employee, the measure included in this research was adapted to emphasise the inferred motives of the hotel for the initial service failure and the inferred motives of the manager for the service recovery from double deviation. In addition, Bock et al. (2016) study the underlying intentions behind employees' extra-role behaviours, whereas the measure utilised in this research concerned failures and recovery efforts. Thus, the last statement of the measure included the phrase "*actions were conducted*" instead of the term "*helped*". A further adaptation was the replacement

of the phrase “*because he or she expected something from me in return*” with the phrase “*because the hotel expected to gain something at my expense*”.

The dependent variable included in Study 3 was an adapted measure of switching to a sub-optimal alternative. Bechwati and Morrin’s (2003) measure asks customers whether they would like to: (a) switch to a competitor that offers the same service as the focal brand for a cheaper price, (b) stay with the focal brand or (c) switch to the fiercest rival of the focal brand, which offers the service at a slightly higher price. This measure serves as the initial stimulus for the switching behaviour measure. The second stimulus is the measure that features in the research conducted by Lee et al. (2017), in which participants were given a budget and asked to choose whether to spend the money at firm A or firm B. The switching measure offered participants the opportunity to choose whether to obtain a voucher from Richard Smith Wines or Stewart Jones’ cellar. Given that Stewart Jones’ Cellar did not optimise the value function, selecting this option was deemed to reflect the switch to a costlier alternative. Moreover, given that the participants were informed that Richard Smith Wines and Stewart Jones’ Cellar are direct competitors, customers may have reasonably inferred that switching to *Stewart Jones’ Cellar* provided the opportunity to get even with *Richard Smith Wines* (Bechwati and Morrin, 2003).

Covariates were included in each study. The covariates included in Study 1 were failure severity, blame attributions (adapted from Maxham and Netemeyer, 2002a; Grégoire et al., 2010; Joireman et al., 2013), stability attributions (Grewal et al., 2008) and gender. Study 2 included severity and blame and gender. Study 3 only included gender. Study 1 included more covariates than the subsequent studies. In Study 2, Stability attributions were removed to create space in the protocol for

measures of alternative motivational mediators. In addition, stability attributions were included in Study 1 because Grewal et al. (2008) provide evidence that stability attributions might alter responses to compensation. However, compensation provided was held constant in Study 2. Study 3 did not include the service recovery covariates because the experiment was designed to instigate an ostensibly real failure. This led the protocol to be very long and demanding of participants' concentration. Therefore, only measures that were essential to the conceptual model were included. Moreover, the inclusion of many perceptual measures could have evoked suspicion about the study aims, thereby undermining the effort to create ostensibly real responses.

6.5.5 Demographic and Purchasing Behaviour Measures

Demographic measures of gender, age and income were also included in all the studies to provide information about the sample and contextualise the findings. In the hotel studies, participants were asked to report whether they had purchased hotel trips and how many hotel trips they had purchased in the previous 5 years. In the wine prize draw study, participants were required to respond to a measure concerning whether they had purchased wine online before, as well as how frequently they had purchased wine online in the past two years. This was necessary to provide contextual information about the experience of the sample, as this may impact on the realism of participants' responses and participants' recovery expectations.

6.6 Recruitment

This section explains the approach utilised to obtain the samples for the main studies. Section 6.6.1 provides a detailed account of the method that was utilised to determine

the appropriate sample size for Study 1. This approach was reapplied to each of the main studies to generate the appropriate sample sizes for studies 2 and 3. The explanation of the method of determination of sample size is necessary as this contextualises the significance levels and effect sizes obtained in the studies. Section 6.6.2 provides an overview of the approach utilised to collect the data and the criteria that were used to exclude participants from the study. Providing a detailed account of the way in which participants were excluded from the study can mitigate concerns regarding the potential biases in the sample selection. Equally, the details of potential sources of bias in the findings present the findings in a transparent manner that aids replication of the findings.

6.6.1 Determining the Sample Size

The same approach to determining sample size was utilised for every study. Therefore, an overview of the rationale for determination of the sample size is provided by presenting the approach that was applied to Study 1. The appropriate sample size for Study 1 was established by considering the sample sizes used in previous studies with similar designs. An a priori power analysis was also conducted to indicate the necessary sample size to support significant effects. The effect size of the focal relationship can be estimated by examining the effects found in previous similar studies (Sawyer and Ball, 1981).

Research conducted by You et al. (2020) was considered to inform the estimation of effect size. Partial eta squared values ranging from 0.02-0.13 were found in the studies conducted by You et al. (2020) for the effect of apology on service recovery repatronage intentions and satisfaction. Therefore, 0.08 seemed a reasonable estimate for the partial eta-squared corresponding to the effect of empathy

of apology on revenge. Using Cohen's (1988, p. 278) conversion table of partial eta-squared to Cohen's f , the corresponding Cohen's f of 0.3 was obtained. This value also corresponded to Cohen's classification of a medium effect size ($f = .25$), while Roschk and Kaiser's (2013) study found Cohen's d values ranging from medium to large for the effect of empathy of apology on service recovery satisfaction. Therefore, a Cohen's f of .3 was included in the a priori power analysis using the G*Power 3 analysis tool (Faul et al., 2007) to derive an estimate for the appropriate sample size.

In line with the approach of Joireman et al. (2013), analysis of covariance (ANCOVA) was used in the analysis phase to examine the difference in revenge desires across each empathy of the apology condition. This information was specified in the G* Power 3 analysis to establish the minimum required sample size. Following the process recommended by Faul et al. (2007), the parameter (means) was specified, as well as the number of groups (4). The numerator df was calculated and specified as 7, according to Dattalo's (2008, p. 99) approach, which is $n = k+q$, where k is the number of groups -1 (groups-1 = 3) and q is the number of covariates. The number of covariates was also specified (covariates = 4), by counting the number of control variables to be entered into the model (i.e., severity, blame, stability, and gender).

Next, the analysis type (a priori) was selected and the input parameters were specified, including: the effect size (Cohen's $f = 0.3$), the significance level ($\alpha = .05$) and the desired power ($1-\beta = .80$). The G*Power analysis indicated that a sample of 167 would be required to support the factorial ANCOVA¹ (the inputs in G*Power are listed in Appendix 6.17). The determination of the appropriate sample size also

¹ Effect size = .3, alpha = .05, power (1-beta) = .8, df= 7, number of groups = 4, number of covariates = 4.

considered recommended sample sizes for conducting mediation analysis using the percentile bootstrap method. Because social science variables often are not normally distributed, PROCESS analysis generates bootstrapped confidence intervals for the indirect effect. Power analysis assumes the data to be normally distributed. Therefore, rather than utilising G*Power to assess the sample size required for the PROCESS analysis, the results of the simulation study conducted by Fritz and Mackinnon (2007) were considered. Applying the results of Fritz and Mackinnon's (2007) simulation study, a sample size of 162 would appear to be sufficient to reveal mediational effects with a power of .8 and path coefficients alpha and beta = .26. Taking this into account, as well as studies that incorporate 50-70 participants per condition (Antonetti et al., 2018; Grégoire et al., 2018), a sample of 250-300 appeared to be sufficient for Study 1 to achieve an acceptable likelihood of obtaining a type two error.

6.6.2 Recruitment Method

Each study involved the recruitment of a random sample of UK consumers aged 18 or over, through the online recruitment platform Prolific. The studies included similar scenarios, Likert-type response measures and the rewards for study participation were identical for all the studies, except for Study 3, which included an additional prize draw. The block randomisation option in Qualtrics was used to randomly allocate participants to conditions. This option was selected to ensure that an equal number of participants was allocated to each group. Participants who had participated in previous studies were considered ineligible for participation in follow-up studies as they would not have been naïve respondents. The only cases in which the respondents responded to more than one study were the longitudinal designs, in which participants were required to

respond to a pre-screening study to assess their eligibility for the main study. Participants were paid Prolific's recommended hourly pay of £7.50. Two pre-screening studies were used to recruit participants to Pilot Study 1 and Study 3.

Alternative recruitment approaches were considered, as a range of online recruitment options were available. Previous studies recruit customers who complain directly to service providers (Mostafa et al., 2015) or utilise complaint sites (Grégoire et al., 2018), student samples (Grewal et al., 2008; Roggeveen et al., 2012) or nationally representative samples based on demographic quotas (Gelbrich et al, 2015). The recruitment of samples of complainants inevitably leads to a lack of representation of participants who experience failures and do not complain (Borah et al., 2020). Equally, the achievement of highly representative samples using quota methods can be costly, thereby limiting the scope for the inclusion of many experimental conditions.

Prolific affords multiple advantages. Prolific workers have a wide range of educational backgrounds and the Prolific respondent pool includes over 130,000 participants. Prolific provides extensive guidance for researchers concerning how to appropriately pay participants and avoid rejecting participants on unfair grounds. This is particularly pertinent given that Buhrmester et al. (2011) find that the size of the payment for participation can influence consumers' decision to participate, which can bias sample selection. Prolific also provides the opportunity to overrule researchers' rejections if they appear unfair (Palan and Schitter, 2018). To reduce the possibility of obtaining demand effects, prolific offers the opportunity for researchers to run pre-screening studies which ask participants about their characteristics. The researcher can also blacklist participant IDs on prolific, which facilitates the exclusion of inattentive or overly experienced participants (Palan and Schitter, 2018).

In consideration of these issues, the decision was made to recruit a random sample of participants through Prolific, as Prolific represented a fast and cost-effective way to access a highly diverse sample of participants. However, it is acknowledged that the online recruitment method may limit the extent to which the sample represents the broader population of consumers (Gerring, 2005). The sample was restricted to UK nationals who spoke English as their first language. This reduced the likelihood of overrepresentation of transient populations (e.g., foreign student participants) and increase the similarity of the respondents with the broader UK population. The prolific pre-screening criteria that were included in each of the pre-screening, pilot and main studies are provided in Table 6.3.

Table 6.3 Prolific Pre-Screening Criteria

Characteristic	Criterion
Nationality	English
Country of residence	UK
First language	English
Participation on prolific	Participant has not participated in a prior study associated with the research project
The criteria below were only applied to studies 1 and 3 and associated pre-screening studies	
Type of alcohol the participant consumes on a regular basis	Wine
Willingness to participate in studies involving deception	Participant is willing to participate in studies involving deception

Before completing each study, participants viewed an information sheet which provided the link to the consent form. The consent form included a fair processing statement and a list of consent criteria with checkboxes. Examples of the information sheets and consent forms utilised in the wine prize draw studies are provided in appendices 6.18 and 6.19, respectively. Examples of the information sheets and

consent forms utilised in the hotel studies are provided in appendices 6.20 and 6.21, respectively. Once consent was obtained, participants proceeded to participate in the study. A set of exclusion criteria were applied to exclude participants from analyses. The participants were excluded from analysis if they had: timed-out, returned their submission, failed attention checks, failed compensation manipulation checks, failed to complete the survey or guessed the purpose of the study. An additional criterion was applied to the hotel studies that stated that the participant had to have purchased at least one hotel trip before.

6.7 Ethical Considerations and Limitations

Section 6.7 outlines the main ethical considerations and limitations of this research. This section begins by summarising the ethical concerns and the steps that were taken to mitigate these concerns. The section closes by highlighting a set of limitations that should be considered when evaluating the empirical findings. Following this, the pre-screening and pilot studies will be discussed to explain how the pilot studies were utilised to refine the main study designs.

6.7.1 Ethical Considerations

Prior to the data collection process, the University of Birmingham's Ethical Review Committee conducted a review of the research and approval was granted. In the course of the approval process, the University's 'Code of Practise for Research' (2020) was consulted and the ethics committee was informed of the recruitment procedures, experimental procedures, use of incentives, survey questions and the planned disclosure of the research purpose. In addition, the ethics committee were notified of

the methods of data storage, including the Birmingham Environment for Academic Research and a password protected computer.

Ethical concerns arose from the use of online experiments, as the online format prevents researchers from assessing visual or verbal cues concerning participants' eligibility for the study, understanding of the consent form and emotional responses (Bachard and Williams, 2008). Moreover, the use of deception in the experiment could have caused participants to experience negative emotions (Homans, 1967). Therefore, Dearman and Beard's (2009) recommendations were followed, to ensure that participants were treated in a respectful and ethical manner, participants were not harmed, and any use of deception was disclosed to participants at the end of each study (Holmes, 1967).

6.7.2 Limitations

A pertinent limitation of laboratory experiments is the vulnerability of participants to 'experimenter demand effects' (Orne, 1962), which denote the changes in participants' behaviour in response to the inference of the research objectives of the experimenter (Sigall et al., 1970; De Quidt et al., 2018). Laboratory experiments also may draw attention to the experimentation process, thereby instigating 'Hawthorne effects', in which participants' awareness of the experiment lead to changes in participant behaviours (Franke and Kaul, 1978). Moreover, participants may possess characteristics that differ systematically with those of the larger population (Rosnow and Rosenthal, 1997). For example, the provision of monetary incentives can entice participants who are highly motivated by financial rewards. Equally, the prescriptive nature of the scenarios used in laboratory experiments often restricts the service

context, which can limit the extent to which the findings can be generalised. Nevertheless, these criticisms might be offset by the decision to conduct multiple experiments, in which the experimental design pivots at each iteration.

Issues associated with the research designs adopted limit the generalisability of the research findings. The research is restricted to two service contexts: hotels and online wine retailers. This increases the generalisability of the findings as the research questions can be studied in offline and online contexts, in exchanges of varying duration and in services in which customers display varying levels of interactive expectations. However, this also limits the capability to isolate the features of the failure context that moderate the effect of empathy of the apology. Moreover, the services both concern hedonic purchases rather than utilitarian purchases. Thus, customers may possess different expectations in utilitarian exchanges, in which psychological and relational benefits may be less valued by customers (Ringbergh et al., 2007). Moreover, the findings may not generalise to services that are characterised by extremely low customer-contact and when the failure is experienced by multiple customers.

A further limitation arises due to the recruitment of samples from online recruitment platforms. This method can attract consumers with higher levels of particular characteristics which might influence their sensitivity to different forms of recovery. For example, participants are paid per minute of survey completion, and thus, high income individuals are less likely to participate in the survey. This could lead the participants to be more sensitive to the financial benefits provided in the recovery.

The studies might also be criticised due to the lack of a balance of genders in study 1. This was caused by an issue that occurred in the Prolific website. A TikTok

video was aired prior to the conduct of Study 1, which advertised the benefits of participation on Prolific (Charalambides, 2021). In the following weeks, the TikTok video received over 4 million views from predominantly young, female viewers, which prompted a surge in female prolific participant sign-ups (Charalambides, 2021). To account for the decline in the balance of genders on the platform, Prolific recommended multiple strategies, including increasing the minimum number of prior Prolific studies participants must have completed before entry to the study, setting a maximum sign-up date and creating two studies that included different gender requirements.

Study 1 utilised the criterion concerning the minimum number of Prolific studies. Specifically, the Prolific pre-screening options specified in the recruitment section were extended to include an additional requirement that the participant had completed a minimum of 20 submissions on Prolific. An alternative approach to recruitment was utilised in Study 2, which included running two identical studies, one male-only study and one female-only study. By the time Study 3 was conducted, prolific provided the option to balance genders and include custom screening options. Therefore, this option was utilised in Study 3. Since Study 3 involved a prize draw scenario, participants had to be recruited to a recruitment pool and then receive the opportunity to enter the survey. Participants were excluded from the recruitment pool if they: timed-out, returned their submission, stated that they would not participate in a prize draw for cash or stated that they would not participate in a prize draw for wine. Having addressed the main features of the recruitment approach, as well as the ethical issues and potential limitations of the approach, the following sections provide a summary of the objectives and outcomes of the pre-screening and pilot studies.

6.8 Pre-Screening Study

A pre-screening study was conducted prior to Pilot Study 1 to recruit a sample of customers who met a set of screening criteria concerning demographic characteristics and purchasing habits. Once the sample of customers had been screened, a recruitment pool for Pilot Study 1 was constructed through the use of the custom-allow list function in prolific. The screening study was used to pilot certain parts of the manipulations utilised in the Pilot Study. First participants' perceptions of a set of brand names were analysed to identify two artificial brand names to ensure that they would not lead to different levels of purchasing likelihood. Second, two brand preference manipulations were piloted to select an effective manipulation for the Pilot Study. The first concerned a manipulation adapted from previous research into the alignment of marketing materials with consumers' prevention-focused vs. promotion-focused goals. The second concerned a manipulation adapted from Bechwati and Morrin's (2003) research into customers' intentions to switch to a sub-optimal alternative. Based on the analysis of the Pre-Screening Study responses, the latter manipulation was retained in Study 1 and is described in more detail in the stimuli section of Study 1. The details of the screening criteria, survey questions and analyses conducted on the Pre-Screening Study data can be found in Appendix 6.22.

6.9 Pilot Study 1

A pilot study of Study 3 was conducted to pre-test the experimental scenarios and manipulations. The pilot study for Study 3 was run at the beginning of the data collection phase, because this included a wine prize draw scenario which had not been

utilised in previous service recovery studies. The experimental procedure for study 3 was also complex, due to the desire to capture real behaviour. Therefore, running the pilot study for study 3 early in the data collection process provided a large timescale within which to amend the Study 3 design. Pilot Study 1 included four empathy of apology conditions. This study clarified how to effectively manipulate the level of empathy of apology in the prize draw study within the online wine retailing context. The study also provided an indication of the likely cost of the study, the response rate to the call to participate in the study and the appropriate exclusion criteria to include.

Independent samples t-tests indicated that participants did not differentiate between the perfunctory and low empathy apology conditions. However, the low and medium empathy apology conditions, as well as the low and high empathy conditions led to statistically significantly different levels of perceived empathy of apology. As the difference in means was greater for the comparison of the low and medium empathy of apology condition, the low and medium empathy of apology conditions were the adopted manipulations for the level of empathy of the apology in Study 3. The Pilot Study also provided the opportunity to ensure that the compensation level in Study 3 was equivalent to the simple compensation needed to recover from the failure. The mean of the mean and median level of compensation expectations stated by the participants was rounded to the nearest pound sterling and then utilised to form the simple compensation condition in Study 3. The median expected level of compensation was 29.95 and the mean level was £27.74. The mean of the two values was 28.85, which led to a simple compensation condition in Study 3 of £29. The details of the scenarios, survey questions and analysis of Pilot Study 1 are provided in Appendix 6.23.

6.10 Pilot Study 2

Pilot study 2 was conducted to pre-test the experimental scenarios and manipulations utilised. Pilot Study 2 included three empathy of apology conditions and two levels of compensation: simple and overcompensation. This study facilitated the selection of the empathy of apology manipulations in the hotel context, as well as the refinement of the survey length. The study also provided an indication of the likely study cost and response rate. The study findings indicated that the low and medium empathy of apology conditions would serve as effective manipulations for the level of empathy of the apology in Study 1. Moreover, Pilot Study 2 provided an opportunity to assess the level of compensation that customers would consider to be appropriate following the double deviation scenario. The mean of the mean and median level of compensation expectations stated by the participants was rounded to the nearest pound sterling and then utilised to form the simple compensation condition in the main hotel studies. The mean of the mean (63.8) and median (50) of customers' compensation expectations was 56.9. Thus, the simple and overcompensation conditions included £57 and £107 voucher-based compensation, respectively. The details of the study design and analysis of Pilot Study 2 are provided in Appendix 6.24. Table 6.4 provides an overview of the objectives and results of the pre-screening and pilot studies.

The pre-tests also provided an opportunity to gain an insight as to the potential relationships between the variables. Therefore, ANCOVAs were conducted to assess the effects of the experimental conditions on revenge desires to provide an initial indication of whether the experimental conditions influenced these variables. The results of the ANCOVAs of Pilot Study 1 are provided in Appendix 6.23 and the results

of the ANCOVAs of Pilot Study 2 are provided in Appendix 6.24. The ANCOVA analyses conducted in the pilot studies provided conflicting results. While Pilot Study 1 indicated that the empathy of apology condition did not significantly influence customers' revenge desires, Pilot Study 2 indicated that revenge desires were lower as the level of empathy of apology increased. Therefore, the results indicated that the relationships should be further investigated in the main studies.

Table 6.4 PRE-SCREENING and PILOT STUDIES: Objectives and Results

Study	Objective	Results
Pre-Screening Study for Pilot Study 1	<p>1) Obtain a sample of participants who meet the following criteria:</p> <ul style="list-style-type: none"> - Participant is of English nationality; - Participant’s first language is English; - Participant drinks wine on a regular basis; - Participant would be willing to participate in a prize draw for wine; - Participant would be willing to participate in a prize draw for cash; - Participant has shopped online before. <p>2) Identify two brand names that do not lead to significantly different levels of purchasing likelihood.</p> <p>3) Pre-test two potential brand preference manipulations. The first was a hopes and goals based manipulation and the second was a price list manipulation.</p>	<p>1) 176 participants who met the recruitment criteria were obtained in the first wave of the Pre-Screening Study. A further 284 participants who met the recruitment criteria were obtained in the second wave of the Pre-Screening Study.</p> <p>2) Two brand names were identified that did not lead to significant differences in customers’ purchasing likelihood.</p> <p>3) The number of participants that preferred to visit “Cellar UK” was compared with the number of participants that preferred to visit “Bottle UK” following each experimental manipulation. The manipulation that led to a higher ratio of participants choosing Cellar UK to participants choosing Bottle UK was selected for use in Pilot Study 1. The adopted manipulation was the price list manipulation.</p>
Pilot Study 1	<p>1) Test the effect of the following empathy of apology manipulations on participants’ perceived empathy of apology:</p> <ul style="list-style-type: none"> Perfunctory apology Low empathy of apology Medium empathy of apology High empathy of apology <p>2) Gain an initial estimate of how long participants would take to answer Study 3.</p> <p>3) Develop the simple compensation level, i.e., the level of compensation that would be considered appropriate to recover from the failure.</p>	<p>1) Independent samples t-tests compared each experimental condition with the remaining experimental conditions in turn. A significant difference was found between the low and medium and low and high empathy of apology groups. The greatest difference in means was between the low and medium empathy of apology group. Therefore, the low and medium empathy of apology manipulations were included in Study 3.</p> <p>2) The average response time for the participants included in the analysis was approximately 11 minutes.</p> <p>3) The mean and median of customers’ compensation expectations was calculated and rounded to the nearest</p>

	<p>4) Conduct an initial assessment of the reliability and association between the measures that could be incorporated in the main studies. These included severity, blame, distributive justice, satisfaction with service recovery, avoidance desires and revenge desires.</p>	<p>pound sterling, providing a simple compensation condition of £29.</p> <p>4) A PLS-SEM model was constructed with the variables included. After refinement of the model, the pertinent variables (severity, blame, distributive justice, avoidance and revenge desires) were retained and the analyses indicated that these measures would be reliable.</p>
<p>Pilot Study 2</p>	<p>1) Test the effect of the following empathy of apology manipulations on participants' perceived empathy of apology: Low empathy of apology Medium empathy of apology High empathy of apology</p> <p>2) Develop the simple compensation level, i.e., the level of compensation that would be considered appropriate to recover from the failure.</p> <p>3) Conduct an initial assessment of the reliability and association between the measures that could be incorporated in the main studies. These included severity, blame, stability and revenge desires.</p>	<p>1) Independent samples t-tests compared each experimental condition with the remaining experimental conditions in turn. A significant difference was found between the low and medium and low and high empathy of apology groups. The greatest difference in means was between the low and medium empathy of apology group. Therefore, the low and medium empathy of apology manipulations were included in Study 1.</p> <p>2) The mean and median of customers' compensation expectations was calculated and rounded to the nearest pound sterling, providing a simple compensation condition of £57.</p> <p>3) A PLS-SEM model was constructed with the variables included. The analyses indicated that the measures were likely to display high levels of reliability.</p>

6.11 Samples

Study 1

308 responses were obtained through Prolific and stored on the Qualtrics platform. After removing the participants who met one or more of the exclusion criteria specified in the recruitment section, 281 participants were included in the analysis of Study 1. Appendix 6.25 provides the details of the number of participants that met each of the exclusion criteria. Appendix 6.26 provides the demographic characteristics of the sample for each of the studies.

Study 2

A total of 313 responses were obtained through Prolific and stored on the Qualtrics platform. After the removal of participants that met one or more of the exclusion criteria in Appendix 6.25, Study 2 included 279 participants.

Study 3

A group of 700 participants were recruited to the Pre-Screening Study, of which 627 participants were eligible to participate in Study 3. The criteria for exclusion of participants from the recruitment pool are provided in Appendix 6.27. The recruitment pool of 627 was utilised to recruit a gender balanced sample of 450 participants. 459 responses were obtained on the Qualtrics platform. After the participants who met one or more of the criteria for exclusion specified in appendices 6.25 were removed, 396 participants remained.

6.12 Approach to Analysis

The previous sections outlined the experimental designs of the studies included in this research and highlighted the sample sizes on which the analyses were conducted.

This should provide information that contextualises the findings to clarify the extent to which the findings can be generalised. This section outlines the main analytical techniques that were applied to analyse the data. Different techniques were used to determine the effects of the experimental manipulations on the manipulation checks, to ensure the validity and reliability of the perceptual measures and to assess the conceptual model. This section will highlight why each technique was used before the results are presented in chapter 7.

6.12.1 T-test and Analysis of Variance (ANOVA)

Independent samples t-tests were used to assess the effects of the experimental manipulations on the manipulation checks. This approach can be utilised to assess the effects of experimental conditions on manipulation checks (Antonetti et al., 2018) and response variables (Weitzl and Hutzinger, 2021). The paired samples t-test was applied to provide evidence of the change in customers' evaluations from the initial service failure phase to the double deviation phase, following the approach of Joireman et al. (2013). The mean ratings of the dependent variables within each experimental group were also compared to establish whether the means varied by experimental group (Field, 2013). ANOVA is frequently used to analyse experimental data in the service recovery literature (e.g., Joireman et al., 2013; Grégoire et al., 2018). Given that this research project incorporated the effects of covariates and sometimes included more than one experimental manipulation, a set of ANCOVA analyses and factorial ANCOVA analyses were run to assess the effects of the experimental conditions on the dependent variables (Field, 2013).

6.12.2 Potential Errors in Data Analysis

This research is vulnerable to the possibility of rejecting the null hypothesis when it should not be rejected (type I error) or failing to reject a null hypothesis that should be rejected (type II error) (Sawyer and Ball, 1981). However, such potential errors are a calculable risk of utilising probabilistic statistics, which can be mitigated by rigorous research practice (Levin and Marascuilo, 1972). Therefore, the analysis was conducted with reference to multiple source material and then repeated to check for errors. Measures were taken to avoid the use of inappropriate statistical tools to investigate interaction effects (Umesh et al., 1996). Researchers caution against the analysis of cell means rather than interaction terms, (Marascuilo, 1972; Umesh et al., 1996). To avoid this issue, the potential interaction effects were incorporated within the ANCOVA and PROCESS analyses in this research. If significant interaction effects were observed, the adjusted means tables would be assessed and the PROCESS analysis would be followed by the assessment of the size and valence of beta coefficients and the index of moderated mediation (Hayes, 2018).

A further potential error in the analyses could arise in applying a statistical test for which the underlying assumptions are violated. An issue might be raised by the use of ANOVA, given that this technique relies on the assumption of homogeneity of variance. Although some studies provide evidence that the F test can be robust to breaches of the homogeneity of variance assumption, the F test may be less robust as the number of groups increases beyond three (LaTour and Miniard, 1983; Blanca et al., 2017). Therefore, following Hayes' (2018) recommendations, bootstrapped analyses were applied in the latter stages of analysis to extend the generalisability of the research findings.

6.12.3 Partial Least Squares Structural Equation Modelling (PLS-SEM) and Confirmatory Factor Analysis (CFA)

Two approaches to the assessment of measures were applied in this research. The pilot study measures were assessed using PLS-SEM, whereas the measures included in the main studies (studies 1, 2 and 3) were assessed using CFA. PLS-SEM was applied only to assess the measures in the pilot studies, because previous service recovery studies include the application of this approach in the exploratory phases of assessment of a measurement model, as well as to provide insight about how the model might perform in later studies (e.g., Joireman et al., 2013). Previous studies also utilise PLS-SEM to examine the data from service recovery experiments due to its appropriacy when working with small sample sizes (Hogreve et al., 2019). Prior studies indicate that PLS-SEM can be applied in exploratory studies, before adopting more confirmatory approaches as the number of studies increases and confidence in the theoretical model increases (Joireman et al., 2013). CFA was utilised to assess the measures in the main studies (studies 1, 2 and 3) for three reasons outlined by Hair et al. (2020): (a) confirmatory factor analysis is considered to be an appropriate approach to confirm the validity of a measurement model, (b) CFA estimates the unique variance due to error associated with each item and separates this from the variance explained by the latent variable and (c) CFA can be utilised to assess the validity of the measurement model in isolation and does not require the specification of the nomological network of the latent variables. The latter benefit contrasts with PLS-SEM which can lead to the retention of a measure in one nomological network that could be deemed to be inadmissible in another nomological network.

PLS-SEM was utilised in Pilot Study 1 and Pilot Study 2 to provide an initial indication of the nature of the associations between the dependent variables, as well as provide an indication of the levels of validity and reliability of the multi-item measures that might be obtained in the main studies. The PLS-SEM analyses in the pilot studies were conducted using Smart PLS 3 software and bootstrapped analyses of the PLS-SEM models were also constructed to provide an indication of the extent to which the structural models could be generalised to cases beyond the current sample. CFA was conducted using AMOS software, which has been utilised in previous marketing research to generate reliability and validity statistics (McGowan et al., 2017).

To assess the validity of the measurement model similar measures were consulted when conducting the PLS-SEM and CFA. The PLS-SEM model was constructed utilising the method for conducting confirmatory composite analysis specified in Hair et al. (2020). The model was then refined after the examination of the convergent and discriminant validity of the constructs. To analyse the results of the CFA and refine the model, the approaches recommended by Bowen and Guo (2011) and Byrne (2013) were consulted. Byrne (2013) provides general instructions on best practices for assessing measurement models, whereas Bowen and Guo (2011) provide specific instructions concerning the conduct of CFA in AMOS. The cut-offs for the reliability estimates were taken from Hair et al. (2013, 2017, 2021) and prior service recovery studies (e.g., Bock et al., 2016).

6.12.4 Validity and Reliability of Measures

Hair et al. (2021) describe validity as the extent to which the indicators of a construct jointly measure the construct that the research attempts to capture (p. 325). This

section provides an explanation of the procedures that were followed to attempt to achieve validity of measures. The section then moves on to discuss how reliability was assessed, to increase confidence that the findings obtained could be replicated by future research studies that utilise the measures used.

Content validity

Content validity can be considered to reflect a “subjective but systematic evaluation of how well the domain content of a construct is captured by its indicators” (Hair et al., 2021, p. 308). To try to ensure content validity, measures were taken prior to the analysis phase. First, the development of measures included an exploration of the measures used in studies of similar constructs, which utilised similar study design approaches. The rationale for this was that performance of pre-tested measures would be more predictable. Moreover, the measures had been developed by experts in the field and had been developed in the context of debates concerning the definitions of the constructs. Moreover, it was argued that the comparability of the current research findings with those of previous studies would also be higher, if the measures included “common ground”, in terms of their content. To adapt the measures to the context of interest, slight adaptations were made to the wording following interviews with researchers and consumers. Moreover, the pilot study results were analysed to provide an indication that the items were likely to be tapping into the intended constructs.

Convergent validity

Convergent validity is described by Hair et al. (2021) as “the extent to which a measure correlates positively with alternative measures of the same construct” (p. 120).

Alternatively, the extent to which the items for a particular construct would appear to converge or share a high amount of variance with each other. Hair et al. (2013) advise researchers to use average variance extracted (AVE) to examine the convergent validity of measures. If the average variance extracted is less than .5, then the variance due to measurement error exceeds that which can be explained by the construct, indicating a low level of convergence on the construct (Hair et al., 2017). Thus, a high AVE value suggests that the construct items may represent the same latent variable.

Discriminant validity

Discriminant validity can be considered to reflect the extent to which a construct is distinct from other constructs (Hair et al., 2021, p.120). Therefore, the discriminant validity of a construct can be considered to indicate the extent to which the domain of the construct cannot be captured by other constructs in the model. Hair et al. (2013) encourage researchers to use the cross-loadings or the Fornell-Larker criterion to establish discriminant validity (Fornell and Larker, 1981). The Fornell-Larker criterion specifies that the square root of the AVE value should exceed the highest inter-construct correlation of a given construct (Hair et al., 2021). A study by Henseler et al. (2015) shows that the heterotrait-monotrait ratio of correlations (HTMT) criterion can be more sensitive to discriminant validity issues. Therefore, the HTMT criterion was also examined to assess discriminant validity and the maximum cut-off value of .85 recommended by Henseler et al. (2015) was utilised. The HTMT ratio was calculated by inputting the observed inter-item correlations (or Pearson correlations, Roemer et al., 2021) into the online HTMT calculator (Henseler, 2023). Rönkkö and Cho (2022) criticise the HTMT criterion, as the HTMT is reliant on the assumption that the error

variances of items are equivalent. Rönkkö and Cho (2022) develop a method for conducting the discriminant validity check in Amos. Therefore, the discriminant validity check specified for Amos was also conducted for each of the main studies and was met. This analysis not presented in the thesis, as this did not provide any different substantive inferences to the HTMT ratio.

Reliability

Reliability can be considered to concern whether the measures utilised, in this case multiple items, lie close together (Hair et al., 2021). For example, two items that represent the same construct may appear to be reliable if random error is low and the scores for each of the items are not highly divergent. Hair et al. (2013) encourage researchers to use Cronbach's alphas to assess internal consistency reliability. Hair et al. (2021) recommend a minimum cut-off value of .7 for the Cronbach's alpha value to provide evidence of reliability. Hair et al. (2012) recommend that rather than relying solely on Cronbach's alpha, researchers should also check that the composite reliability of constructs is .70 or above. The composite reliability provides an estimate of reliability based on the factor loading values present in the data and does not assume 'tau equivalence', i.e., that each item is "*equally important in defining the latent variable*" (Henseler and Fassott, 2010, p. 51). Hair et al. (2019) argue that composite reliability scores of .95 or higher raise concern, as they indicate that one or more indicators may be redundant or participants may be straight lining. However, Hair et al. (2019) also note that the composite reliability score may be liberal, while Cronbach's alpha may be conservative. Thus, Cronbach's alpha values and composite reliabilities of over .7 indicate reliability of measures. Therefore, a rigorous approach utilised by researchers within the service recovery literature (e.g., Hogueve et al., 2019) and

outside the service recovery literature (e.g., McGowan et al., 2017) is to present both values to provide confidence in the reliability of measures. To establish whether the items converge on a common construct, Hair et al. (2021) note that item loading values of .70 or above are adequate for conducting further analysis. Figure 6.5 presents the formulae for the Cronbach's alpha, composite reliability and AVE statistics.

Figure 6.5 Formulae for Reliability and Convergent Validity Statistics

$$\text{Cronbach's alpha} = \left(\frac{M}{M-1} \right) \cdot \left(1 - \frac{\sum_{i=1}^M s_i^2}{s_t^2} \right),$$

$$\text{Composite reliability} = \frac{(\sum_{i=1}^M l_i)^2}{(\sum_{i=1}^M l_i)^2 + \sum_{i=1}^M \text{var}(e_i)},$$

$$\text{Average variance extracted} = \frac{\sum_{i=1}^M l_i^2}{M},$$

Notes: s_i^2 denotes the variance of the indicator i , s_t^2 is the variance of the sum of the indicators, M is the number of indicators, l_i denotes the standardised outer loading, e_i denotes measurement error and $\text{var}(e_i)$ indicates the variance of the measurement error (measurement error = $1-l_i^2$).

The formulae are taken from Hair et al. (2021, p. 117-120).

6.12.5 Assessment of the Measurement Model

The process of estimation of the CFA model aims to estimate a model that “*minimises the discrepancy between the sample covariance matrix and the population covariance matrix implied by the model*” (Byrne, 2013, p. 65). Therefore, the researcher tests the null hypothesis that the estimated model also holds in the population. Accordingly, an indication of a strong CFA model is that the null hypothesis cannot be rejected. The chi-squared test can be utilised to assess model fit. Insignificant chi-squared statistics indicate high levels of model fit. However, the Chi-squared statistic is understood to

become more likely to be significant as sample size increases. Hence, a model with a significant chi-squared statistic may still be acceptable, if the sample size is large and other fit indices meet established cut-offs. Therefore, multiple goodness of fit indices were utilised to provide a balanced impression of the goodness of fit of the model.

The Tucker-Lewis index (TLI) and the Comparative Fit Index (CFI) compare the fit of the model with a baseline model and can be used to assess model fit. The Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) can be utilised to assess the fit of the model to the sample data. The RMSEA and SRMR indices decrease with goodness of fit. The RMSEA is sensitive to the number of parameters to be estimated. A Bollen-Stine bootstrap procedure (Bollen and Stine, 1993) was also utilised to assess model fit, however this followed the findings of the assumptions testing phase and therefore, will be explained in the assumptions testing section. A summary table of the goodness of fit indices used in this research is provided in Table 6.5.

Table 6.5 Model Fit Indices

Statistic	Description	Criterion
χ^2 Statistic	<i>“The product of (a) the sample size minus 1 and (b) the minimization value obtained for the discrepancy function used by the estimator”</i> (Bowen and Guo, 2011, p. 142). An indication of the consistency between the model and the data.	Non-statistically significant indicates good model fit (Byrne, 2013).
CFI	<i>“The CFI measures the fit of a hypothetical model in relation to a more restricted (i.e., nested) baseline model. ...Usually, the baseline model is a null model, assuming all covariances among the observed variables to be zero”</i> (Heene et al., 2011, p. 320).	Value ≥ 0.95 indicates close fit (Byrne, 2013).
TLI	Indicates <i>“how well a factor model with m common factors represents the covariances among the attributes for a population of objects”</i> (Tucker and Lewis, 1973; p. 5).	Value ≥ 0.95 indicates close fit (Byrne, 2013).
Goodness-of-Fit-Index (GFI)	Multivariate equivalent of the R-squared value in a regression. However, it does not take into account the number of parameters to be estimated, and as a result the model fit can be improved by simply adding more parameters (Rao and Sachs, 1999).	Value ≥ 0.90 indicates close fit (Byrne, 2013).
RMSEA	A <i>“parsimony-adjusted”</i> (i.e., per-degree of freedom; Kline, 2015) indicator of the closeness of the implied matrix to the observed variance-covariance matrix. An indication of the discrepancy between the model fit and the fit of a model with optimal parameter values with the population covariance matrix (Browne and Cudeck, 1993, p. 137-138).	RMSEA p-value $\leq .08$ indicates reasonable fit and p-value $\leq .05$ indicates close fit (Browne and Cudeck, 1993).
SRMR	The average of the standardized residual values of the variance-covariance matrix (Byrne, 2013).	Value $\leq .08$ indicates close fit (Hu and Bentler, 1999).

Bollen-Stine Bootstrap Estimate	Bootstrap samples are formed by transforming the parent data to data that has a similar distribution and a covariance matrix that matches the covariance matrix implied by the model. A significant p-value indicates higher proportion of bootstrapped samples for which the model fits the bootstrapped sample worse than the observed data (less confidence in model fit; Byrne, 2016).	A significant p-value provides less confidence in the model fit.
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6.12.6 PROCESS Analysis

In line with the approach of You et al. (2020), Grégoire et al. (2018) and Antonetti et al. (2018), Hayes' (2018) PROCESS analysis was applied to assess the potential mediators under investigation in each study. PROCESS analysis was adopted for five reasons. First, PROCESS enables the researcher to test a variety of different forms of mediation, including moderated mediation, parallel mediation and serial mediation. Second, while Baron and Kenny (1986) mediation analysis requires that there must be a significant effect of X on Y for mediation (Zhao et al., 2010), Preacher and Hayes' (2004) bootstrap method for assessing mediation does not inflict this constraint. This enables the researcher to investigate occasions in which the X-Y relationship can only be observed under certain conditions, such as when counteracting mediating variables are measured (Zhao et al., 2010). Third, PROCESS analysis utilises the bootstrapping method to generate coefficients that are more robust to breaches of the normality assumption. Fourth, the efficiency of the Hayes' PROCESS analysis syntax facilitates the analysis of the data from multiple studies in a limited timeframe. Fifth, PROCESS is frequently adopted to analyse experimental data, and hence, the use of PROCESS increases the comparability of the research results with those of previous studies. This renders the PROCESS analysis approach more appropriate for the current study than the development of multiple PLS-SEM or CB-SEM (covariance-based structural equation model) models.

In Study 1, Hayes' PROCESS model 6 was applied to assess the serial mediation of the perceived empathy of the apology-revenge desires relationship through inferred manipulative intentions and anger. The analyses were conducted while controlling for the effects of the covariates included in the study. Study 2 began

by assessing the potential mediators through the construction of a custom model in PROCESS. The construction of a custom model in PROCESS involved the development of a syntax command, which specified the associations within the conceptual model. Multiple potential models were fitted, before a final PROCESS model 6 was generated. The PROCESS model 6 captured the effect of the service recovery from double deviation on revenge behaviour, as well as the serial mediation through anger and revenge desires. In every PROCESS analysis, bootstrapped analyses were conducted using the percentile bootstrap procedure with 10,000 resamples (Hayes, 2018).

6.12.7 Assumptions Testing

The next chapter discusses the results of the assessment of the measurement instruments. Therefore, this section provides a brief discussion of assumptions that were tested prior to conducting the assessment of measures and the hypothesis testing phase of the analysis. This section summarises the assumptions testing phase of the analysis by highlighting the aspects of the data that breached the underlying assumptions of ANCOVA, ordinary least squares and logistic regression. Before conducting the analysis, the number of outliers for the mediating variables and dependent variables in studies 1, 2 and 3 was calculated. The percentage of outliers with z-scores greater than or equal to 1.96 was assessed. In studies 1 and 2, the percentage of outlying z-scores for each variable was less than or equal to 5.7%. However, the outliers for helplessness and revenge desires in study 3 represented 8.7% and 7.3% of the sample, respectively. These percentages were not very different from the guideline of approximately 5% recommended by Field et al. (2013) and

therefore, were deemed to be acceptable. The assessment of skewness and kurtosis estimates, as well as the Q-Q plot indicated that the ratings of revenge desires in studies 1 and 2 were not normally distributed within each experimental condition. The P-P plots for these variables also showed a deviation from normality and considerable positive skew. In study 3, the P-P plots for anger and revenge desires indicated positive skew and the Q-Q plots for anger and revenge desires indicated positive skew within each experimental condition. However, previous revenge studies display low average levels of revenge desires, indicating that customers commonly report low levels of revenge desires.

Levene's statistic was utilised to assess the homogeneity of variance assumption. Levene's statistic was not statistically significant concerning any of the dependent variables in Study 1. However, the plot of observed standardised residual values against predicted values indicated that revenge desires displayed heteroskedasticity. Nevertheless, the plot did not indicate that the errors were related. In Study 2, Levene's test indicated significant differences in the variance of the benevolent intentions variable according to the empathy of apology condition (Levene's statistic (1, 277) = 3.99, $P < .05$). Similarly, the variance in revenge desires differed significantly depending on the empathy condition (Levene's statistic (1, 277) = 11.40, $P < .001$) and intentionality condition (Levene's statistic (1, 277) = 22.01, $P < .001$). The homoskedasticity, independence of errors and additivity of the model were also assessed by examining the plot of standardised residuals against predicted residual values of each response variable and were met for most of the variables. However, the plot for revenge desires indicated heteroskedasticity. The residuals did not vary systematically, which indicated that the dependent variable could be predicted

by a linear model. In Study 3, Levene's test of homogeneity of variance was significant for the anger variable within the different compensation conditions (Levene's statistic (1, 394) = 9.41, $P < .01$). Levene's test of homogeneity of variance was also significant for the revenge desires variable within the different compensation conditions (Levene's statistic (1, 394) = 9.12, $P < .01$). However, the errors did not appear to vary systematically, as the scatterplot of standardised residuals against predicted values did not display a curve. The RB variable is dichotomous and as such homoskedasticity was not an assumption for the model of this variable. Indeed, Mood (2010) explains that the errors are not observed in a logit model but are assumed to follow a standard logistic distribution. Therefore, this is an inherent assumption of the model that cannot be tested.

To ensure that unanticipated interactions were not omitted from the analysis and that the homogeneity of regression slopes assumption was met, ANCOVAs were constructed, which incorporated interaction effects between the experimental conditions and each of the covariates. Most of the interaction effects were not significant. However, in Study 1, a significant interaction was found between the empathy of the apology condition and gender for inferred manipulative intentions ($F(1, 267) = 6.46, P < .05$). A significant interaction was also found between stability and empathy of the apology for the anger variable ($F(1, 267) = 3.98, P < .05$). These interactions were not anticipated in the hypothesis development section, and therefore were investigated in the PROCESS analysis of Study 1. In studies 2 and 3, no significant interaction effects on the dependent variable were identified. In Study 3, the assumption of the linearity of the logit was assessed by conducting a logistic regression that included continuous predictors and the interaction between each predictor and its

log (Hosmer and Lemeshow, 1989; Long, 2008). The assumption was met as none of the effects of the interaction terms were significant at the $P < .05$ level.

The independence of the treatment and covariates was assessed by conducting ANOVAs of each covariate by the treatment condition. In Study 1, the treatment condition did not significantly influence the covariates. In Study 2, the intentionality condition appeared to impact on severity perceptions ($F(1, 277) = 16.87, P < .001$). This issue was investigated further in the PROCESS analysis of Study 2. In Study 3, gender appeared to significantly vary by compensation condition ($F(1, 391) = 6.17, P < .05$). However, given that participants were randomly assigned to conditions this was not considered to be a major concern.

Multicollinearity was assessed by constructing a regression of the dependent variable and examining the variance inflation factors (VIFs). VIF values greater than 10 would indicate a high likelihood of multicollinearity between the predictors (Field, 2013). VIF values were below 10, indicating that multicollinearity was not a concern. Overall, the assumptions of normality and homoskedasticity were clearly violated for the revenge desires variable. Therefore, the bootstrapping function in Hayes' PROCESS macro (Hayes, 2018) was utilised to account for heteroskedasticity as well as non-normality.

The CFA analysis also relies on a set of assumptions. The underlying assumptions will be discussed briefly, before the presentation of the CFA results. Two key assumptions of CFA and Amos are that the data are univariate normal and multivariate normal (Byrne, 2016). As a default, Amos utilises the Maximum Likelihood (ML) estimation method, which relies on the assumption of normality. To assess whether the data were univariate normal, the univariate kurtosis values and their critical

ratios (z-values) were assessed in Amos. In Amos, a value of 0 indicates the kurtosis of a normal distribution. Byrne (2016) suggests that a Kurtosis value of +/- 7 may indicate substantial kurtosis, while a critical ratio value of multivariate kurtosis of greater than 5 indicates substantial multivariate kurtosis.

Moreover, Mahalanobis d-squared distances of each case can be assessed to identify cases that are improbably high. Mahalanobis d-squared distances indicate the distance of profile of scores for one case from the centroid (i.e., the vector of means). Amos also provides a p^2 value which indicates the probability of obtaining each Mahalanobis d-squared value assuming that the data is normally distributed. A large number of significant p^2 values would bring into question the normality assumption. While Byrne (2016) recommends the removal of a small number of outliers and additional options of transformation or manually altering the data can be used to address outliers, Kline (2015) suggests that manually forcing data to meet a normal distribution may not be the best approach if the data are not normal. The variables of interest in this study include anger and revenge may not be normally distributed, as researchers note that customers tend to report low levels of revenge (Joireman et al., 2013). Therefore, the decision was made to retain the outlying cases and consider accounting for non-normality through bootstrapping or the use of different estimation procedures. Collinearity between the indicators was also assessed by inputting the indicators into a regression of the dependent variable and none of the VIFs were above 10, which indicated collinearity was not a major concern. Table 6.6 provides the statistics for the data in studies 1, 2 and 3, the statistics indicate that the normality of the data of each study cannot be assumed and that Study 3 appears to be particularly likely to breach the normality assumption.

Table 6.6 Skewness and Kurtosis Estimates

	Highest Univariate Kurtosis Estimate	Multivariate Kurtosis Critical Value	Number of Cases with High Mahalanobis D-Squared Distances (p1 < .001; p2 < .001)
Study 1	3.95	27.53	9
Study 2	1.46	21.75	10
Study 3	6.85	132.86	33
Guideline Provided in the Literature	Values greater than 7 indicate non-normality	Values greater than 5 indicate non-normality	Any case with a significant p1 and p2 value would appear to be an outlying case (Byrne, 2016)

In the face of non-normally distributed data, the bootstrapping procedure can be applied to gain confidence intervals for the loading values obtained (Byrne, 2016). This method was applied for each study to increase confidence in the generalisability of the values obtained. The procedure specified in Byrne (2016) was utilised, to generate Bias-corrected and accelerated bootstrap confidence intervals with 10,000 sub-samples. The loading values reported for the items of the measurement instruments in the thesis represent the estimates obtained from the bootstrapping procedure. These did not differ substantially from the estimates obtained for the original sample. If the Chi-squared statistic indicated a high level of fit of the model to the data, the Bollen-Stine bootstrap procedure could be used to assess the goodness of fit of the model (Bollen and Stine, 1993). This would assess the frequency with which the model fit the data worse in the bootstrap samples than the parent sample and generate a probability of obtaining the given frequency (Byrne, 2016). A significant p-value would indicate the model was unlikely to display a high level of model fit, due to a high amount of cases in which the model fit the bootstrapped sample worse than the sample data.

Given that the Study 3 data appeared to display a severe departure from normality, an alternative estimation procedure was deemed appropriate. Indeed, researchers recommend the use of an estimation procedure which does not assume normally distributed data (Byrne, 2016). For example, Zaefarian et al. (2021) utilise elliptical re-weighted least squares estimation. In the Amos package, the asymptotic distribution-free (ADF) estimator can be used, as this method also does not assume normality (Byrne, 2016). However, Raykov and Marcoulides (2000) note that the sample size must be at least ten times the number of parameters to be freely estimated to reduce the likelihood of obtaining severely distorted estimated values and standard errors. Study 3 met this requirement, therefore the CFA analysis of study three was also repeated with the application of ADF estimator. The results did not reveal any substantially different insights, as most of the goodness of fit indices were very similar. Therefore, to increase comparability of the results with the previous studies, the results of the CFA that was conducted with ML estimation are presented in this thesis.

6.12.8 Methods for Reducing Bias

Non-response bias

To address non-response bias, the approach of comparing early and late respondents was utilised (Durand et al., 2016). The assumption was made that participants who responded to the call to participate later than other respondents were similar to non-respondents. Therefore, using independent samples t-tests the levels of dependent variables of the late respondents were compared with the levels that were reported by early respondents. In studies 1, 2 and 3, ratings of anger and revenge desires were compared. Following the CFA analysis, an independent samples t-test was applied to

compare the average scores for the variables of interest. The respondents were split into two groups based on the date and time at which they responded to the call (less than the median vs. greater than or equal to the median). Early respondents (i.e., less than the median) were coded as 0 and late respondents were coded as 1.

The results of the analyses for Study 1 indicated that the mean level of inferred manipulative intentions did not differ significantly between the two groups (early $M = 3.22$, late $M = 3.22$, $t = .01$, $p = .99$), the mean level of anger did not differ significantly between the two groups (early $M = 4.81$, late $M = 4.74$, $t = .39$, $p = .70$) and the mean level of revenge did not differ significantly between the two groups (early $M = 2.39$, late $M = 2.12$, $t = 1.71$, $p = .09$). The results of the analyses for Study 2 indicated that the mean level of inferred selfish intentions did not differ significantly between the two groups (early $M = 3.49$, late $M = 3.85$, $t = -1.96$, $p = .05$) and the mean level of inferred benevolent intentions did not differ significantly between the two groups (early $M = 3.69$, late $M = 3.32$, $t = 1.86$, $p = .06$). The mean level of anger did not differ significantly between the two groups (early $M = 4.53$, late $M = 4.59$, $t = -.38$, $p = .70$) and the mean level of revenge did differ significantly between the two groups (early $M = 1.97$, late $M = 2.50$, $t = -3.00$, $p < .01$). The results of the analyses for Study 3 indicated that the mean level of anger did not differ significantly between the two groups (early $M = 3.23$, late $M = 2.20$, $t = 1.92$, $p = .85$) and the mean level of revenge desires did not differ significantly between the two groups (early $M = 1.64$, late $M = 1.75$, $t = -1.03$, $p = .30$). Overall, the results do not indicate a likelihood that non-response bias impacted on the quality of the data.

Endogeneity

Endogeneity concerns additional variables that can influence independent variables and the dependent variable in the conceptual model, which can lead the assumptions of statistical models to be violated (Hult et al., 2018, p. 3). Rutz and Watson (2019) explain that laboratory designs facilitate the assumption that endogeneity is accounted for within the research design, by the control of the environment. For example, whereas firm strategy in a field experiment may be influenced by organisational culture or funding constraints (Hult et al., 2018), strategies can be manipulated directly by the researcher within a laboratory, thereby limiting the influence of external factors. Although it is acknowledged that laboratory experiments cannot account for every confounding variable, the ability to account for a myriad of confounding variables in a cost-effective and time-efficient manner denotes an advantage of this approach.

Common Method Bias (CMB)

CMB is frequently cited as a concern for survey-based studies, in which evidence is drawn from multiple perceptual measures from a single respondent (Chari et al., 2017). Albeit CMB can be partly accounted for by the use of different methods to measure the independent and dependent variables, as well as the concealment of the study purpose and assurance of anonymity of responses (Podsakoff et al., 2003), a statistical approach was utilised to assess CMB amongst the perceptual measures included in the main studies. The statistical approach utilised was the latent single-method-factor approach, in which a latent common method construct is added to the baseline model and the model fit statistic of the adapted and baseline model are compared (Podsakoff et al., 2003; Najavi-Tavani et al., 2022).

The final CFA model of the perceptual measures in Study 1 was compared with the model including a latent common method construct and the Chi-squared values were 232.87 and 231.90, respectively. Given that the critical value for a Chi-squared distribution with one degree of freedom (the difference between the two models) is 3.841, the difference in fit between the two models does not appear to be substantial. Additional fit statistics for the main model (CFI = .974, RMSEA = .048) did not differ from the statistics obtained for the model including the latent common method construct (CFI = .974, RMSEA = .048). The chi-squared statistic for Study 2 was 220.41 for the baseline model and for the model including a latent common method variable. Additional model fit statistics for the main model (CFI = .967, RMSEA = .061) did not differ from the statistics obtained for the model including the latent common method construct (CFI = .967, RMSEA = .061). The chi-squared statistics for Study 3 were 206.31 (df = 62) for the baseline model and 197.94 (df = 61) for the model including a latent common method variable. This indicates a significant difference in the fit statistic. However, the additional model fit statistics for the main model (CFI = .974, RMSEA = .077) did not differ from the statistics obtained for the model including the latent common method construct (CFI = .975, RMSEA = .075). Therefore, although CMB cannot be ruled out by the analyses completely, the statistical analyses indicate that the relationships between the items and the latent variables are very unlikely to be affected by CMB.

CHAPTER 7: ASSESSMENT OF MEASURES

7.1 Introduction

Chapter 7 provides an indication of the convergent and discriminant validity of the perceptual measures, as well as the measurement reliability. First, section 7.2 summarises the outcomes of the analyses of the measures in the pilot studies. Second, Section 7.3, Section 7.4 and Section 7.5 present the reliability estimates for the measures of studies 1, 2 and 3, respectively. In the pilot studies, a PLS-SEM approach was adopted to reflect the aims of prediction of how variables might relate to each other in the main studies. The previous section established that PLS-SEM serves as an initial tool for developing predictive models, which can be complemented by confirmatory models in the latter stages of research. Accordingly, the measures in studies 1, 2 and 3 were assessed using CFA to provide more precise estimates of the loading values and reliability of the measures. The presentation of the convergent and discriminant validity statistics, as well as reliability estimates not only adds credence to the findings of the studies, but also enhances the comparability of the research findings with the findings of previous studies. Table 7.1 provides an overview of each of the studies and the perceptual measures that were collected in each study. Following the refinement of measures in Chapter 7, Chapter 8 explains the approach to testing the research hypotheses and the empirical results.

Table 7.1 Studies and Perceptual Measures

Study	Context	Measured Perceptual Variables	Analysis	Measures Retained
Pilot Study 1	Wine prize draw	Severity, Blame, Service Recovery Satisfaction, Distributive Justice, Avoidance Desires and Revenge Desires	PLS-SEM	Severity, Blame, Distributive Justice and Revenge Desires
Pilot Study 2	Hotel stay	Severity, Blame, Stability and Revenge Desires	PLS-SEM	Severity, Blame, Stability and Revenge Desires
Study 1	Hotel stay	Severity, Blame, Stability, Inferred Manipulative Intentions During Service Recovery from Double Deviation, Anger and Revenge Desires	CFA	Severity, Blame, Stability, Inferred Manipulative Intentions During Service Recovery from Double Deviation, Anger and Revenge Desires
Study 2	Hotel stay	Blame, Severity, Inferred Selfish Intentions During Initial Service Failure, Inferred Selfish Intentions During Service Recovery from Double Deviation, Inferred Benevolent Intentions During Service Recovery from Double Deviation, Anger and Revenge Desires	CFA	Severity, Inferred Selfish Intentions During Service Recovery from Double Deviation, Inferred Benevolent Intentions During Service Recovery from Double Deviation, Anger and Revenge Desires
Study 3	Wine prize draw	Anger, Helplessness and Revenge Desires	CFA	Anger, Helplessness and Revenge Desires

7.2 Pilot studies: Evaluation of Perceptual Measures

Prior to conducting the main studies, an initial exploration of participants' responses to the perceptual measures included in the pilot study was conducted. This included running a PLS-SEM analysis of the perceptual measures and their structural relationships. The first PLS-SEM for Pilot Study 1 included the perceptual measures that were collected (i.e., severity, blame, service recovery satisfaction, distributive justice, avoidance desires and revenge desires) and was refined due to multicollinearity issues. Pilot study 2 included a PLS-SEM, which contained the perceptual variables included in the study (i.e., severity, blame, stability and revenge desires). The full details of the analysis procedure and results are not discussed in this thesis for four reasons. First, the main purpose of collecting the perceptual data was to ascertain the time taken by the respondents to respond to all the perceptual measures. Second, the aim of the PLS-SEM analysis was to provide an initial indication that the valance of the associations between the variables was consistent with the previously stated hypotheses. Third, the pilot studies were designed to test the efficacy of the experimental manipulations and not to test the conceptual model. Fourth, the results of the pilot studies did not provide further substantive insights beyond those gleaned from the main studies. A summary of the results of the PLS-SEM analysis of Pilot Study 1 is provided in Appendix 6.23 and a summary of the results of the PLS-SEM analysis of Pilot Study 2 is provided in Appendix 6.24. These appendices provide a summary of the recruitment approach, design and analyses of the pilot studies.

7.3 Study 1: Evaluation of Perceptual Measures

A CFA model of the central model constructs was conducted, before examining the effects of the experimental conditions. The variables included in the CFA model were severity, blame, manipulative intentions during service recovery from double deviation, anger and revenge desires. Most of the loading values for the items exceeded the .7 threshold. The Cronbach's alpha scores and composite reliabilities were above 0.7 and almost all AVEs exceeded 0.5 (AVE for inferred manipulative intentions = .47). The heterotrait-monotrait ratios of correlations were also examined to assess discriminant validity and did not exceed the .85 cut-off (Henseler et al., 2015), which indicates a high level of discriminant validity of the constructs. Table 7.2 provides the model fit indices for the model. Table 7.3 provides the Cronbach's alpha scores, composite reliabilities and average variance extracted values (AVEs) for the final model. Appendix 7.1 displays the heterotrait-monotrait (HTMT) ratios of correlations for Study 1 and Appendix 7.2 provides the loading values for the items in the model, as well as the associated bootstrapped confidence intervals. Table 7.4 provides descriptive statistics and Table 7.5 provides the construct correlations. Chapter 8 Section 8.2 discusses the effects of the experimental conditions on the perceptual measures.

Table 7.2 STUDY 1: Model Fit Indices

Statistic	Criterion (Specified in Byrne, 2013)	Value Obtained for Final Model
χ^2 statistic	A result that is not statistically significant implies good model fit (i.e., the model appears to be consistent with the data; Byrne, 2013).	232.88 (degrees of freedom = 142, $p < .001$)
Comparative Fit Index (CFI)	Value exceeding or equal to 0.95 indicates close fit (Byrne, 2013).	.97
Tucker-Lewis Index (TLI)	Value exceeding or equal to 0.95 indicates close fit (Byrne, 2013).	.97
Goodness-Of-Fit-Index (GFI)	A value greater than or equal to 0.90 indicates close fit (Byrne, 2013).	.92
Root Mean Square Error of Approximation (RMSEA)	An RMSEA p-value of less than or equal to .08 implies that there is reasonable fit, where p-value of less than .05 indicates close fit (Browne and Cudeck, 1993).	.05 (LLCI= 0.04, ULCI= 0.06)
Standardized Root Mean Square Residual (SRMR)	A value of less than or equal to .08 indicates close fit (Hu and Bentler, 1999).	.04
Bollen-Stine Bootstrap Estimate	Bootstrap samples are formed by transforming the parent data to data that has a similar distribution and a covariance matrix that matches the covariance matrix implied by the model. A significant p-value indicates higher proportion of bootstrapped samples for which the model fits the bootstrapped sample worse than the observed data (less confidence in model fit; Byrne, 2016).	$p = .01$

Table 7.3 STUDY 1: Reliability Estimates for Perceptual Measures

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Anger	0.91	0.91	0.72
Blame	0.78	0.78	0.54
Manipulative Intentions	0.74	0.76	0.47
Revenge Desires	0.94	0.94	0.77
Severity	0.89	0.83	0.71
Stability	N/A	N/A	N/A

Table 7.4 STUDY 1: Descriptive Statistics of Perceptual Measures

	Severity	Blame	Stability	Inferred Manipulative Intentions of the Manager During Service Recovery from Double Deviation	Anger	Revenge Desires
Mean	5.45	6.19	3.91	3.22	4.78	2.25
Std. Error of Mean	.07	.06	.07	.07	.08	.08
Std. Deviation	1.20	1.07	1.16	1.16	1.39	1.33
Range	5.67	5.00	6.00	6.00	6.00	6.00
Minimum	1.33	2.00	1.00	1.00	1.00	1.00
Maximum	7.00	7.00	7.00	7.00	7.00	7.00

Table 7.5 STUDY 1: Construct Correlations

	Severity	Blame	Inferred Manipulative Intentions of the Manager During Service Recovery from Double Deviation	Anger	Revenge Desires
Severity	0.94				
Blame	0.50	0.88			
Inferred Manipulative Intentions of the Manager During Service Recovery from Double Deviation	0.22	0.23	0.86		
Anger	0.67	0.49	0.49	0.95	
Revenge Desires	0.24	0.14	0.39	0.40	0.97

Notes: The square root of the AVE is displayed on the diagonal of the table and highlighted in bold.

7.4 Study 2: Evaluation of Perceptual Measures

To assess the validity of the measures utilised, a confirmatory factor analysis (CFA) of the measures was constructed in Study 2. All items were included in the first model, before refinement of the measurement model. The first model contained blame, severity, the three intentions measures, anger and revenge desires. However, some of the loading values did not meet the .7 cut-off for factor loadings. Therefore, a simpler model was developed, in which two variables and one item were removed. The variables that were removed were blame and inferred selfish intentions during service failure and the item that was removed was the first item of benevolent intentions during double deviation service recovery. Multiple items could not be removed, as this would have led to identification issues. Moreover, the intentions during service failure did not appear to be highly associated with anger and revenge desires, while blame was only incorporated as a covariate and was not central to the conceptual model.

Table 7.6 provides the model fit indices for the final model, which indicate a high level of model fit. Notably, although the chi-squared statistic does not indicate a well-fitting model, a significant chi-squared value has been noted to be more likely as sample size increases (Byrne, 2016). The reduction in significance of the p-value following the application of Bollen-Stine bootstrapping procedure would appear to be less indicative of poor fit than the initial chi-squared value (Byrne, 2016). Moreover, the remaining fit statistics appear to indicate a high level of model fit. Table 7.7 provides the reliability and convergent validity statistics. Table 7.8 provides the descriptive statistics for the latent variables and Table 7.9 provides the construct correlations. The composite reliabilities all exceeded .7, the Cronbach's alpha values were above .7 and the AVEs all exceeded .5. The squared multiple correlations table (i.e., table of R-

squared values for the endogenous variables) was inspected and the lowest R-squared value was .4, indicating that the latent variables explained a large about of variance in the observed variables. Moreover, the residuals of the variance-covariance matrix did not appear to be very large.

The Fornell-Larker criterion was met, as the square root of the AVE for each construct was greater than the construct correlations of each construct with other constructs. The HTMT ratios and loading values are provided in Appendix 7.3 and Appendix 7.4, respectively. Most of the loading values met the .7 cut-off, except for two items, which were close to the cut-off (loading value \geq .58). The measures display high levels of discriminant validity and the HTMT criterion for assessing discriminant validity of HTMT values less than .85 was also achieved. The loading values were also high.

Table 7.6 STUDY 2: Model Fit Indices

Statistic	Value Obtained for Final Model
X² Statistic	220.41 (degrees of freedom = 109, p < .001)
Comparative Fit Index (CFI)	.97
Tucker-Lewis Index (TLI)	.96
Goodness-of-Fit-Index (GFI)	.92
Root Mean Square Error of Approximation (RMSEA)	.06 (LLCI= 0.05, ULCI= 0.07)
Standardized Root Mean Square Residual (Srmr)	.04
Bollen-Stine Bootstrap Estimate	p = .001

Table 7.7 STUDY 2: Reliability Estimates for Perceptual Measures

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Severity	0.90	0.86	0.61
ISI	0.81	0.90	0.76
IBI	0.89	0.83	0.62
Anger	0.85	0.90	0.81
Revenge Desires	0.95	0.95	0.78

Notes: 'ISI' denotes inferred selfish intentions of the manager during service recovery from double deviation. 'IBI' denotes inferred benevolent intentions of the manager during service recovery from double deviation.

Table 7.8 STUDY 2: Descriptive Statistics of Perceptual Measures

	N	Minimum	Maximum	Mean	Std. Deviation
Severity	279	1.00	7.00	5.23	1.41
ISI	279	1.00	7.00	3.67	1.55
IBI	279	1.00	7.00	3.51	1.66
Anger	279	1.00	7.00	4.56	1.35
Revenge Desires	279	1.00	7.00	2.24	1.48

Notes: 'ISI' denotes inferred selfish intentions of the manager during service recovery from double deviation. 'IBI' denotes inferred benevolent intentions of the manager during service recovery from double deviation.

Table 7.9 STUDY 2: Construct Correlations

	Severity	ISI	IBI	Anger	Revenge Desires
Severity	0.78				
ISI	0.25	0.87			
IBI	-0.16	-0.49	0.79		
Anger	0.72	0.48	-0.32	0.90	
Revenge Desires	0.38	0.38	-0.30	0.57	0.88

Notes: The square root of the AVE is displayed on the diagonal of the table and highlighted in bold. 'ISI' denotes inferred selfish intentions of the manager during service recovery from double deviation. 'IBI' denotes inferred benevolent intentions of the manager during service recovery from double deviation.

7.5 Study 3: Evaluation of Perceptual Measures

To assess the measurement reliability of the multi-item measures, a CFA model was constructed including anger, helplessness and revenge desires. All items were included in the first CFA model and the data were analysed using the approach utilised in Study 2. The Cronbach's alpha values, composite reliability statistics, HTMT ratios of correlations and loading values met the minimum cut-offs specified in 7.3. The chi-squared statistic for model fit was significant, which does not provide evidence of model fit. However, the significance of the p-value reduced with the Bollen-Stine bootstrap procedure. Moreover, the remaining model fit statistics were consistent with the statistics that were obtained in Study 2 and are displayed in Table 7.10. The reliability and convergent validity statistics, descriptive statistics and construct correlations are provided below in tables 7.11, 7.12 and 7.13, respectively. The HTMT ratios are provided in Appendix 7.5 and the loading values are provided in Appendix 7.6.

Table 7.10 STUDY 3: Model Fit Indices

Statistic	Value Obtained for Final Model
X² Statistic	206.31 (degrees of freedom = 62, p < .001)
Root Mean Square Error of Approximation (RMSEA)	.08 (LLCI= 0.07, ULCI= 0.09)
Comparative Fit Index (CFI)	.97
Tucker-Lewis Index (TLI)	.97
Goodness-of-Fit-Index (GFI)	.93
Standardized Root Mean Square Residual (SRMR)	.03
Bollen-Stine Bootstrap Estimate	p = .037

Table 7.11 STUDY 3: Reliability Estimates for Perceptual Measures

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Anger	0.96	0.96	0.85
Helplessness	0.94	0.94	0.79
Revenge Desires	0.95	0.95	0.78

Table 7.12 STUDY 3: Descriptive Statistics for Perceptual Measures and Behaviour Measure

	N	Minimum	Maximum	Mean	Std. Deviation
Anger	396	1.00	7.00	2.22	1.37
Helplessness	396	1.00	7.00	1.71	1.14
Revenge Desires	396	1.00	7.00	1.69	1.11
Revenge Behaviour	396	.00	1.00	43.2% switched to Stewart Jones' Cellar	N/A

Table 7.13 STUDY 3: Construct Correlations

	Anger	Helplessness	Revenge Desires
Anger	0.92		
Helplessness	0.56	0.89	
Revenge Desires	0.60	0.38	0.88

Notes: Square root of the AVE is emboldened and provided on the diagonal of the matrix.

7.6 Concluding Remarks

This chapter provided an overview of the results of the assessment of the perceptual measures for the pilot studies and the main studies. This chapter provided evidence that reliable measures of the model variables were obtained, which could be incorporated into empirical models of the effects of the experimental conditions on the dependent variables. Moreover, initial support was provided for the conceptual model, as the construct correlations indicated that the hypothesised mediators and dependent variables were unlikely to be unrelated. The next section will present the results of Study 1, Study 2 and Study 3 outlining the ANCOVAs, factorial ANCOVAs and PROCESS analyses utilised to test the hypotheses supporting the conceptual model.

CHAPTER 8: RESULTS

8.1 Introduction

This chapter provides an overview of the approach that was utilised to assess the impact of the experimental conditions on the dependent variables, as well as assess the hypothesised mediating variables. The first two studies utilised ANCOVAs to test the effects of the experimental conditions on the dependent variables, before conducting a PROCESS analysis to assess mediation between the independent and dependent variables. The final study includes a binary dependent variable and was analysed utilising an alteration of PROCESS analysis, which includes OLS regressions of the mediators and a binary logistic regression of the dependent variable. The analysis procedures for each study will be discussed separately, as well as the extent to which the statistical models provide empirical support for the hypotheses presented in Chapter 5. Section 8.2 begins with the presentation of the results of the factorial ANCOVA of the Study 1 data. The factorial ANCOVA was used to establish the effects of the conditions and covariates on revenge desires. This is necessary to provide empirical support for the notion that empathetic apologies can be an effective recovery tactic to alleviate revenge desires. Following this, the results of the PROCESS analysis will be presented. This will provide an initial indication of the validity of the rationale that empathetic apologies influence inferences of intent.

Section 8.3 begins with a summary of the results of an ANCOVA of the Study 2 data, which replicates the findings of Study 1 in an adapted failure context. This is followed by the presentation of the results of a PROCESS analysis, thereby further probing the mediating mechanism between empathy of apology and desires for revenge. Section 8.4 details the analysis of the Study 3 data. This section clarifies the effects of the empathy of apology and monetary compensation in a utilitarian failure

context. This will be followed by the presentation of the results of a final PROCESS analysis of the latter stages of the conceptual model, which link anger to revenge desires and behaviours. First, an alternative mediator of helplessness is considered, and second, the association between participants' self-reported intentions and behaviour is captured. This is necessary to provide support for the validity of the model of service recovery from double deviation through the generation of a model that reflects real-time revenge behaviours. Sections 8.2, 8.3 and 8.4 will close with a discussion of how the findings of each study inform extant understanding of service recovery. The findings will be contextualised within the extant literature to draw conclusions concerning the conceptual model and to highlight potential interpretations of the results. Following this, concluding remarks will be provided in Section 8.5.

8.2 Study 1

This section outlines the process applied to analyse the data collected in Study 1. This section first details the results of the Factorial ANCOVA analysis, which presents evidence of the relationship between empathy of apology and revenge desires. The discussion then focuses on the PROCESS analysis to provide evidence of the rationale for the conceptual model. Study 1 tested the central part of the conceptual model and the effects of overcompensation (refer to Figure 6.2). The hypotheses that were tested in Study 1 were H1b, H6 and H7, which are as follows:

H_{1b} Apologies with higher levels of empathy will lead customers to infer less manipulative intent of the manager during service recovery from double deviation.

H₆ Monetary overcompensation will lead to lower levels of customer anger than simple monetary compensation.

H₇ Lower levels of customer anger will lead to lower levels of customer revenge desires.

8.2.1 Factorial ANCOVA

A factorial ANCOVA analysis of revenge desires was run to establish the effect of the experimental conditions on revenge desires following the inclusion of covariates. The experimentally manipulated variables were empathy of apology and monetary overcompensation. The covariates in the factorial ANCOVAs were severity, blame, stability and gender. An interaction term was also included to assess a potential interaction between empathy of apology and monetary overcompensation. As Table 8.1 demonstrates, the results indicate that the empathy condition impacted on participants' revenge desires ($F(1, 271) = 4.66, P < .05, \eta_p^2 = 0.02$). The mean level of revenge desires in the low empathy condition was 2.37 (standard deviation = 1.34), whereas the mean level was 2.11 (standard deviation = 1.27) in the high empathy condition. The significant covariates were participants' perceptions of severity ($F(1, 271) = 9.95, P < .01, \eta_p^2 = 0.04$) and stability ($F(1, 271) = 11.34, P < .01, \eta_p^2 = 0.04$). The level of overcompensation provided did not exert a significant influence on customers' revenge desires. Table 8.2 provides the adjusted means, which represent the means in each experimental condition when the covariates are held at a constant level. The table illustrates that the empathy of apology condition influences the level of revenge desires. Overall, the factorial ANCOVA provides support for the effect of the empathy of apology condition on revenge desires. Therefore, the next section runs a series of PROCESS analyses to test a sequentially mediated model of the effect of the apology condition on participants' desires for revenge.

Table 8.1 STUDY 1: Factorial ANCOVA of Revenge Desires

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	50.61	7	7.23	4.58	P < .001***
Intercept	.59	1	.59	.37	.54
Severity	15.70	1	15.70	9.95	.002**
Blame	.01	1	.01	.01	.93
Stability	17.89	1	17.89	11.34	.001**
Gender	2.92	1	2.92	1.85	.18
Empathy of Apology Condition (Low Vs. High)	7.36	1	7.36	4.66	.03*
Compensation Condition	.36	1	.36	.23	.63
Empathy of Apology Condition * Compensation Condition	.60	1	.60	.38	.54
Error	427.59	271	1.58		
Total	1881.88	279			
Corrected Total	478.20	278			

Notes: * indicates that the effect is significant at the $p < .05$ level. ** indicates that the effect is significant at the $p < .01$ level. *** indicates that the effect is significant at the $P < .001$ level. R-squared = .11 (Adjusted R Squared = .08). All statistics are provided to two decimal places except for significant P-values, which are provided to three decimal places (this method of presentation also applies to subsequent tables).

Table 8.2 STUDY 1: Adjusted Means of Revenge Desires

Empathy of Apology Condition	Compensation Condition	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	Simple Compensation	2.34 ^a	.15	2.04	2.64
	Overcompensation	2.36 ^a	.16	2.05	2.67
High	Simple Compensation	2.11 ^a	.16	1.80	2.42
	Overcompensation	1.94 ^a	.16	1.63	2.25

a. Covariates appearing in the model are evaluated at the following values: severity = mean = 5.45, blame = mean = 6.19, stability = mean = 3.91, gender = 1 = female.

8.2.2 PROCESS Model 6

A PROCESS model 85 was constructed with empathy of apology as the X variable, revenge desires as the Y variable, overcompensation as the W variable (i.e., the moderator variable), and inferred manipulative intentions and anger as mediators M1 and M2, respectively. This enabled the serial mediation to be tested, as well as the potential interaction effect of empathy and monetary overcompensation on inferred manipulative intentions. However, the interaction effect was not statistically significant ($b = -.05$, $t = -.18$, $P = .19$). Therefore, the model was reconstructed as a PROCESS model 6. A serial mediation model was utilised to model the effects of the empathy of apology, monetary overcompensation, severity, blame, stability and gender on revenge. The model was specified to incorporate the potential effects of the covariates on each of the mediators and the dependent variable. The serial mediation model included the relationship between the empathy of apology condition and revenge desires, which was thought to be serially mediated by perceived manipulative intentions for service recovery from double deviation (M1) and anger (M2). The model is depicted in Figure 8.1. The analysis included the effects of overcompensation, severity, blame, stability and gender as covariates. The empathy of apology condition was coded as 0 in the low empathy condition and 1 in the high empathy condition and this coding approach was used across all three studies. The overcompensation condition was coded as 0 in the absent condition and 1 in the present condition.

Within the conceptual model, the relationship between empathy of apology and anger was partially mediated by inferred manipulative intentions. The relationship between inferred manipulative intentions and revenge desires was partially mediated by anger. Finally, the relationship between empathy of apology and revenge desires

was mediated by the serial mediation route through inferred manipulative intentions and anger. Table 8.3 provides the results of the full model, including the effects of covariates on the mediators and the dependent variable. The bootstrapped confidence intervals for the partially standardised indirect effects of empathy of apology on revenge desires are provided in Table 8.4.

Before the inclusion of the potential mediators into the model, the R-squared value for desire for revenge was .10. After the inclusion of the mediators, the R-squared value for desire for revenge was .19. Thus, the inclusion of the mediators appears to improve the model. Moreover, the F statistic indicates that it is highly unlikely that the predictor variables do not influence the dependent variable ($F(8, 270) = 7.88, P < .001$).

Figure 8.1 STUDY 1: PROCESS Model 6

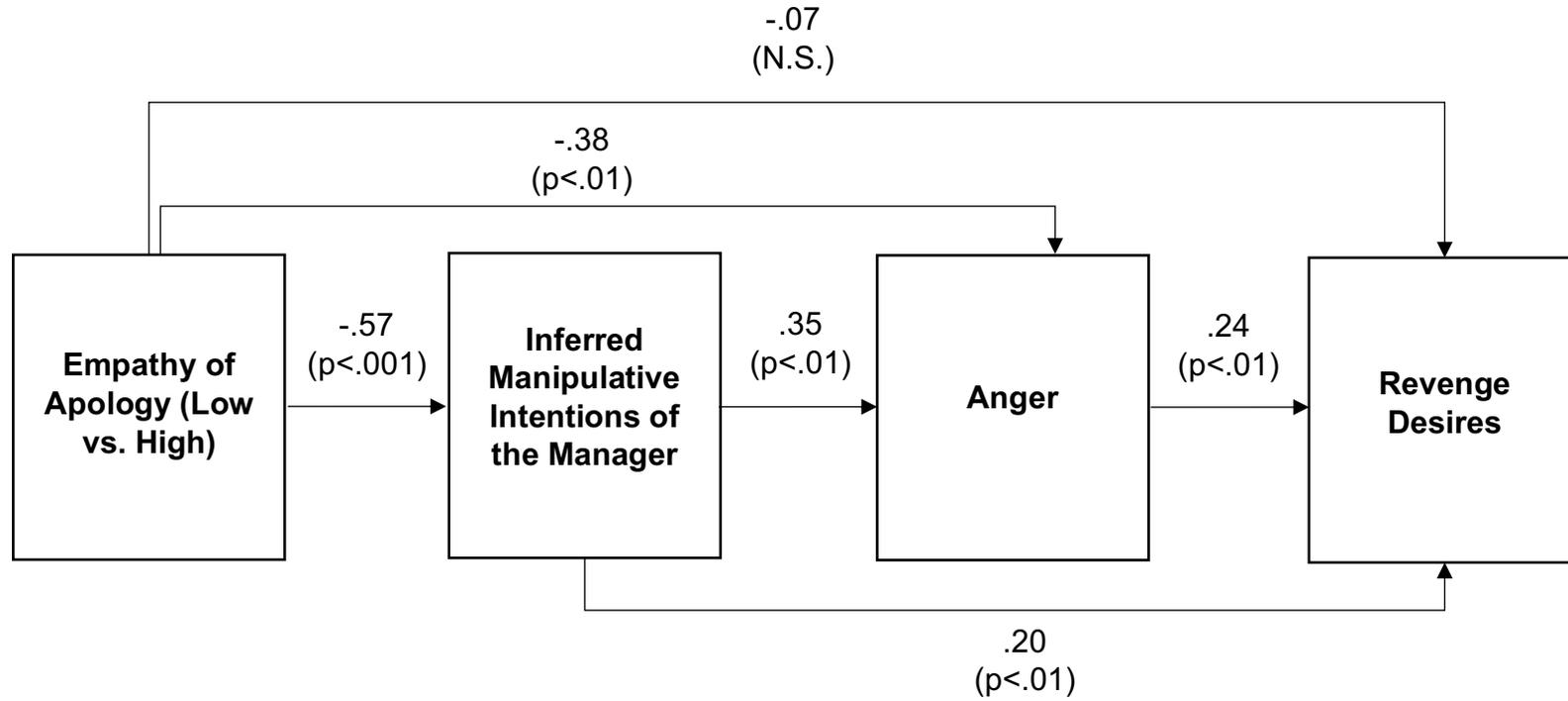


Table 8.3 STUDY 1: Tabulated Results of Process Model

Variable	OLS Model for IMI				OLS Model for Anger				OLS Model for Revenge Desires			
	B	SE	t	P-value	B	SE	t	P-value	B	SE	t	P-value
Constant	1.85	.45	4.08	P <.001***	-.60	.43	-1.40	.164	.11	.52	.20	.840
Empathy of Apology Condition	-.57	.13	-4.40	P <.001***	-.38	.12	-3.07	.002**	-.07	.15	-.49	.626
IMI	-	-	-	-	.35	.06	6.35	P <.001***	.20	.07	2.79	.006**
Anger	-	-	-	-	-	-	-	-	.24	.07	3.21	.002**
Monetary Overcompensation Condition (Present Vs. Absent)	-.26	.13	-2.03	.043*	-.07	.12	-.57	.568	.02	.15	.14	.892
Severity	.14	.06	2.34	.020*	.57	.06	10.21	P <.001***	.05	.08	.59	.555
Blame	.09	.07	1.37	.172	.19	.06	3.03	.003**	-.06	.08	-.79	.433
Stability	.18	.06	3.14	.002**	.05	.05	.99	.321	.16	.06	2.47	.014*
Gender (female)	-.32	.16	-1.95	.053	-.01	.15	-.07	.947	.16	.18	-.90	.370
R-squared	.15				.51				.19			
F statistic	8.13 (P <.001)				40.39 (P <.001)				7.88 (P <.001)			

Notes: 'IMI' denotes the inferred manipulative intentions of the manager during service recovery from double deviation. * indicates P < .05 level of significance, ** indicates P < .01 level of significance, *** indicates P < .001 level of significance.

Table 8.4 STUDY 1: Table of Partially Standardised Indirect Effects of Empathy of Apology on Revenge Desires

	Effect	Bootstrapped SE	Bootstrapped LLCI	Bootstrapped ULCI
Total	-.19	.05	-.299	-.108
Empathy of Apology -> IMI -> Revenge Desires	-.09	.04	-.177	-.022
Empathy of Apology -> Anger -> Revenge Desires	-.07	.03	-.134	-.020
Empathy of Apology -> IMI -> Anger -> Revenge Desires	-.04	.01	-.065	-.014

Notes: 'IMI' denotes the inferred manipulative intentions of the manager during service recovery from double deviation.

Considering the interactions observed in the assumptions testing phase, a further custom PROCESS model was developed, which incorporated the interaction effect of the empathy of apology condition and gender on inferred manipulative intentions and the interaction effect of the empathy of apology condition and stability on anger. However, the model explained less variance in revenge desires than the original model 6 (custom model R-squared value = .17, Model 6 R-squared value = .19). Therefore, the more parsimonious PROCESS model 6 was retained and the custom model is not presented in the thesis.

Overall, the PROCESS model 6 provided support for H1b and H7. A significant association was found between the empathy of apology condition and inferred manipulative intentions. Empathy of apology influenced desires for revenge indirectly through multiple mediational paths (total partially standardised indirect effect= -.19, bootstrapped confidence interval= -.30 to -.11). A serial mediational path to revenge was found through motivational inferences and anger (partially standardised indirect effect= -.04, bootstrapped confidence interval= -.065 to -.014). The offer of monetary overcompensation also influenced significantly the inferred manipulative intentions variable ($b = -.26$, $t = -2.03$, $p < .05$). However, the effect was far weaker than that of empathy of apology. Moreover, monetary overcompensation did not reduce anger directly and the ANCOVA analyses indicated that monetary overcompensation did not influence revenge desires.

Next, a PROCESS analysis was conducted in which monetary overcompensation featured as the X variable. The results indicated that the total effect of monetary overcompensation on revenge desires -including the effects through the direct and mediated paths- was not statistically significant at the .05 level. Following

this, a PROCESS analysis of anger was conducted to explore the effect of compensation on anger. While the bootstrapped confidence interval for the indirect effect through manipulative intentions did not contain zero, the total effect of the compensation through direct and indirect paths was not statistically significant. These findings provide little evidence to support a relationship between monetary overcompensation and anger. Therefore, sufficient support was not obtained for H6.

Overall, the study sheds light on the potential economic benefit of empathetic apologies, as the effect of providing overcompensation was less than the effect of providing an empathetic apology. However, the study provides moderate evidence that monetary overcompensation can restore customers' confidence in the ethicality of the service provider. These findings run counter to the underlying rationale presented by Chen et al. (2018) for the inefficacy of monetary overcompensation following unethical failures.

8.2.3 Discussion of Study 1

This section considers potential interpretations of the findings of Study 1, by incorporating studies from within and outside of the service recovery literature. The discussion focuses on empathy of apology, monetary overcompensation and the interplay between these two tactics. Each section deals with one of the three topics in turn. The discussion first addresses how the findings clarify the effects of empathy of the apology. Next, the effects of monetary overcompensation are discussed. Following this, the findings with regards to a potential interaction between the two tactics are considered.

8.2.3.1 Empathy of Apology

Antonetti et al. (2018) show that intense apologies can alleviate the positive effect of downward social comparisons on anger through the mediation of inferred manipulative intentions. The coefficient of the effect of intense apologies ranges from $-.2$ to $-.38$ in their research. However, the present study finds a higher direct influence of the extent of empathy of the organisational apology on the inference of manipulative intentions of $-.57$. The finding of a strong association between empathy and inferred manipulative intentions corroborates the findings of Roschk and Kaiser (2013) that the effect of empathy on service recovery satisfaction exceeds that of intensity. Thus, empathy appears to remain an important recovery tactic across single and double deviation scenarios. Moreover, Antonetti et al. (2018) postulate that persuasion knowledge may play an important role in governing the effects of multiple recovery tactics.

This research extends the findings of previous studies that variations in the wording of post-failure communications can alter the inferred negative motives of the firm (Béal and Grégoire, 2022), by providing empirical evidence of how apology wording can be used to alter the inference of the manipulative intent of the manager. This suggests that the empathy provided during the service recovery from double deviation is a highly influential service recovery from double deviation tactic. Furthermore, the study findings extend the findings of You et al. (2020) to the double deviation context, by demonstrating that the effects of superior psychological recovery tactics are manifest in cases in which customers' utilitarian needs are fulfilled. This is an important finding that highlights a similarity between single and double deviations and should be considered in future studies of service recovery from double deviation.

8.2.3.2 Monetary Overcompensation

Study 1 provided moderate evidence that the provision of monetary overcompensation could improve customer perceptions of firms' intentions. However, the effect appeared to be less strong than the influence of empathy of apology. These findings contradict with Crisafulli and Singh's (2016) findings that customer perceptions of the inferred negative motives of the firm do not significantly differ when the firm exceeds the promised level of pay-out of the service guarantee. The findings also run counter to the contention that providing inequitable benefits does not improve customer perceptions of the firm's integrity and ethicality (Chen et al., 2018) or perceptions of the sincerity or trustworthiness of the compensation provider (Haesevoets et al., 2014). Prior research into price guarantees suggests that by providing a price guarantee with a high level of depth (i.e., a high benefit for customers who invoke the guarantee), the firm signals to customers its commitment to providing low prices (Kukar-Kinney et al., 2007). This suggests that the firm might revise customer perceptions of selfishness of the service provider by demonstrating its ability to sacrifice money. In this regard, Study 1 appears to indicate that providing overcompensation can yield beneficial inferences of intent. However, the finding that empathetic apologies appear to be more effective provides support for the notion that apologies are more effective at rebuilding trust when financial gains are distributed (Cremer, 2010).

This study does not provide evidence that overcompensation reduces the inference of anger or revenge desires. Thus, H6 is not supported. These findings contrast with the findings of previous studies that higher levels of overcompensation lead to higher levels of perceived justice, satisfaction and repatronage intentions (Noone and Lee, 2011; Noone, 2012). Gelbrich et al. (2015) show that satisfaction

appears to plateau at approximately 168% when the customer accepts a flawed service. However, this study shows that the ameliorative effect of compensation may plateau at lower levels. Therefore, this study adds to the literature into the moderators of the effects of overcompensation. The findings suggest that in addition to relationship strength (Gelbrich, 2016) and customers' sensitivity to situational fairness from the perspective of the firm (Haesevoets et al., 2019), the double deviation context might act as a boundary to the effects of overcompensation.

One potential explanation is that the nature of simple compensation changes in the double deviation phase, such that it becomes more elastic for severe failures. In this manner, customers may possess a range of compensation levels which they deem to be simple or adequate compensation (e.g., 100%-150%), which reflect the severer nature of the failure. Therefore, overcompensation may not be deemed to be excessive unless the difference in the level of compensation offered is more extreme. This would indicate that the effects of overcompensation would have been revealed in Study 1 if higher levels of compensation were considered.

A further potential explanation is that the diminishing marginal returns of overcompensation occur at lower levels following double deviations. This would provide support for the equity theoretical perspective (Adams, 1965), which indicates that individuals harbour strong perceptions of equity in social exchanges, such that they are concerned to a greater extent with balancing their ratio of outputs-to-inputs with those of others, rather than seeking gains. Consistent with this perspective, Austin and Walster (1974) find that when individuals over-benefit, they display higher levels of distress, albeit to a lesser extent than when they are underpaid. However, the results of this research slightly depart from the findings of Austin and Walster, as their study

illustrates that distress increases, whereas this research shows that anger does not appear to differ. This might be because Austin and Walster's (1974) research concerns payment for individuals' efforts, whereas this study concerns compensation for a failure. Indeed, customers may possess clearer perceptions of equity in payment situations than service failure situations.

8.2.3.3 The Interplay Between Empathy and Overcompensation

This research also demonstrated how firms might experience spill over effects from utilitarian recovery tactics to psychological recovery tactics. Indeed, the manipulation checks in Pilot Study 2 and Study 1 showed that customers perceived higher levels of empathy of the organisational apology when a monetary overcompensation was provided. This indicates that utilitarian recovery tactics might exert a halo effect on psychological recovery tactics, such that customers infer that firms are more empathetic when they provide higher levels of compensation. This finding is consistent with prior economic studies, which show that customers perceive the service provider to be more apologetic following the provision of monetary compensation (Haesevoets et al., 2013). This research extends these findings by demonstrating that customers' evaluations of apologies may be biased by the provision of overcompensation.

This section discussed the findings of Study 1 in consideration of the findings of previous studies. The next section provides the results of the second study. Study 2 examines H1a, H1c, H1d, H2, H3, H4 and H5, while replicating the findings for H7. Study 2 includes a similar analysis approach to Study 1. The results of Study 2 will be presented following a similar structure to the approach used to present the results of Study 1.

8.3 Study 2

This section outlines the process that was applied to analyse the data that was collected in Study 2. Section 8.3.1 provides the results of the Factorial ANCOVA analysis, which replicates the findings of Study 1 concerning a relationship between empathy of apology and revenge desires. Following this, Section 8.3.2 elucidates the mediational route to revenge desires by considering multiple PROCESS models. The purpose of Study 2 was to study the mediational route between empathy of apology and revenge desires in further detail and examine the effects of intentionality of failure (refer to Figure 6.3). Three alternative mediators are considered, as well as a potential interaction effect between empathy of the apology and intentionality of the double deviation. Accordingly, Study 1 focuses on testing H1a, H1c, H1d, H2, H3, H4 and H5, which are as follows:

- H_{1a} Apologies with higher levels of empathy will lead customers to infer less selfish intent of the manager during service recovery from double deviation.*
- H_{1c} Apologies with higher levels of empathy will lead customers to infer less selfish intent of the firm during the initial service failure.*
- H_{1d} Apologies with higher levels of empathy will lead customers to infer greater benevolent intent of the manager during service recovery from double deviation.*
- H₂ Higher perceptions of intentionality of the double deviation will lead to higher levels of customers' inferred selfish intent of the manager during service recovery from double deviation.*
- H₃ The effect of the empathy of the apology on customers' inferred selfish intentions of the manager during service recovery from double deviation is stronger when the initial failure is perceived to be intentional.*
- H₄ Lower levels of customers' inferred selfish intentions of the manager during service recovery from double deviation will lead to lower levels of customer anger.*

H₅ Lower levels of customers' inferred selfish intentions of the manager during service recovery from double deviation will lead to lower levels of customer revenge desires.

8.3.1 Factorial ANCOVA

The assessment of the validity of the measures addressed H_{1c} . The measure of selfish inferred intentions during the initial service failure had to be removed from the model for three reasons: (a) a low factor loading for one of the items of the selfish intentions variable, which reduced confidence in the measure, (b) the lack of a significant association between this variable and the empathy of apology and (c) this variable did not appear to be highly associated with anger or revenge desires. Therefore, H_{1c} was not supported in this research. The next phase of the analysis included conducting a factorial ANCOVA analysis to establish the effect of the experimental conditions on revenge desires. The results of the ANCOVA analyses are provided in tables 8.5 and 8.6. The covariates in the factorial ANCOVA were severity and gender. The significant predictors of desire for revenge were the empathy condition ($F(1, 273) = 8.58, P < .01, \eta_p^2 = .03$), as well as perceived severity ($F(1, 273) = 41.34, P < .001, \eta_p^2 = .13$) and gender ($F(1, 273) = 13.61, P < .001, \eta_p^2 = .05$). The mean level of revenge desires in the low empathy condition was 2.46 (standard deviation = 1.61), whereas the mean level was 2.02 (standard deviation = 1.31) in the high empathy condition.

Overall, the factorial ANCOVA provides findings that are consistent with Study 1 and reinforce the notion that empathetic apologies influence customers' revenge desires. The next section builds on the factorial ANCOVA analysis to develop a process model, which tests for a parallel mediated relationship between the empathy of apology condition and customers' desires for revenge.

Table 8.5 STUDY 2: Factorial ANCOVA of Revenge Desires

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	125.89	5	21.18	14.21	P < .001***
Intercept	5.721	1	5.72	3.23	.073
Severity	73.25	1	73.25	41.34	P < .001***
Gender	24.11	1	24.11	13.61	P < .001***
Empathy of Apology Condition	15.21	1	15.21	8.58	.004**
Intentionality of Double Deviation Condition	4.08	1	4.08	2.30	.13
Empathy of Apology Condition * Intentionality of Double Deviation Condition	2.061	1	2.06	1.16	.28
Error	483.72	273	1.77		
Total	2006.12	279			
Corrected Total	609.61	278			

Notes: * indicates that the effect is significant at the P < .05 level of significance. ** indicates that the effect is significant at the P < .01 level. *** indicates that the effect is significant at the P < .001 level. R-squared = .21 (adjusted R-squared= .19)

Table 8.6 STUDY 2: Estimated Marginal Means Table for Revenge Desires

Empathy Condition	Intentionality Condition	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low Empathy of Apology	Low Intentionality	1.97	.17	1.63	2.31
	High Intentionality	2.39	.18	2.03	2.75
High Empathy of Apology	Low Intentionality	1.67	.17	1.33	2.02
	High Intentionality	1.75	.19	1.39	2.12

a. Covariates appearing in the model are evaluated at the following values: severity = 5.23 and gender = female.

8.3.2 PROCESS Model 6

The first PROCESS analysis to be run was a custom PROCESS model, which incorporated the parallel mediators of the benevolent inferred intentions during service recovery from double deviation and selfish inferred intentions during service recovery from double deviation, as well as the serial mediational route to revenge desires through the intentional mediators and anger. This model incorporated the intentionality condition as a moderating variable of the effect of empathy of the apology on inferred motives, anger and revenge desires. The covariates were perceived failure severity and gender. However, none of the effects of the intentionality condition on the mediators and dependent variable were significant. Moreover, the results did not provide support for a moderating effect of intentionality of failure, as none of the interaction effects were significant. Thus, H2 and H3 were not supported and the model was specified as a PROCESS model 80, which did not include any interaction effects, but retained the parallel and serial mediational routes.

A second PROCESS model (model 80) was constructed, in which the effect of empathy of the apology on desires for revenge was mediated by the parallel mediators of inferred selfish intentions during service recovery from double deviation (M1) and inferred benevolent intentions during service recovery from double deviation (M2), as well as serially mediated through motivational inferences (M1 and M2) and anger (M3). The empathy of apology condition ($b = 1.37, P < .001$) and severity ($b = -.21, P < .01$) influenced the inference of benevolent intentions during service recovery from double deviation. Thus, support was provided for H1d. However, the output for the PROCESS model 80 is not presented, because the model indicated that a serial mediation model with only two mediators would be a more accurate representation of the underlying

relationships. Specifically, the table of partially standardised indirect effects of the empathy condition on revenge indicated the paths for which the bootstrapped confidence intervals did not contain zero. These paths included (a) the path through inferred selfish intentions during service recovery from double deviation and (b) the sequential mediation path through inferred selfish intentions during service recovery from double deviation and anger. This indicated that the effects of the recovery operate through their influence on perceptions of selfish recovery intentions rather than the revision of inferences concerning prior intentions or positive recovery intentions. Therefore, the model was re-specified as a PROCESS model 6 with the inferred selfish intentions during double deviation as the first mediator and anger as the second mediator.

The diagram of the model is displayed below in Figure 8.2 and the full model is presented in Table 8.7. Table 8.8 provides the partially standardised indirect effects of empathy of apology on revenge desires. The results indicated that the empathy of apology condition and severity impacted on the inference of selfish intentions during service recovery from double deviation. Therefore, support was provided for H1a. The findings for the effect of the conditions and covariates on anger reflect the findings of Study 1, as the empathy of apology condition and severity were significant predictors of anger. However, in Study 2, gender affected desires for revenge, as female customers displayed lower desires for revenge.

Figure 8.2 STUDY 2: PROCESS Model 6

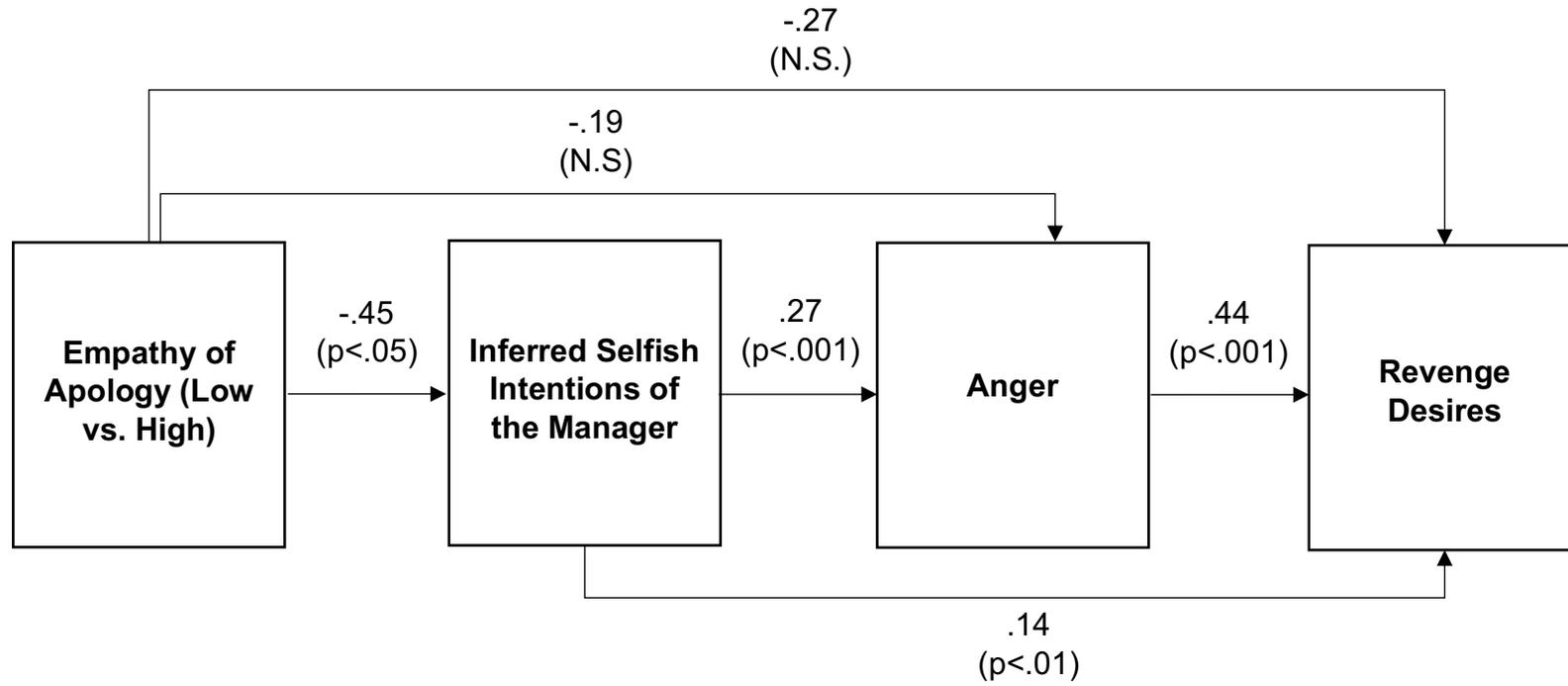


Table 8.7 STUDY 2: Tabulated Results of PROCESS Model

Variable	OLS Model for ISI				OLS Model for Anger				OLS Model for Revenge Desires			
	B	SE	t	P-Value	B	SE	t	P-Value	B	SE	t	P-Value
Constant	2.74	.36	7.57	P < .001***	.85	.26	3.30	.001*	-.38	.32	-1.17	.243
Empathy of Apology Condition	-.45	.18	-2.52	.013*	-.19	.12	-1.61	.11	-.27	.15	-1.81	.071
ISI	-	-	-	-	.27	.04	6.86	P < .001***	.14	.05	2.61	.01*
Anger	-	-	-	-	-	-	-	-	.44	.07	5.86	P < .001***
Intentionality of Failure Condition (High Vs. Low)	-.05	.19	-.24	.810	.13	.12	1.10	.271	.21	.15	1.38	.168
Severity	.25	.07	3.70	P < .001***	.52	.04	11.91	P < .001***	.08	.07	1.22	.225
Gender (female)	-.20	.18	-1.12	.264	.04	.12	.35	.727	-.55	.15	-3.77	P < .001***
R-squared	.07				.49				.35			
F statistic	5.18 (P < .001***)				52.49 (P < .001***)				24.54 (P < .001***)			

Notes: 'ISI' denotes the inferred selfish intentions of the manager during service recovery from double deviation. * indicates P < .05 level of significance, ** indicates P < .01 level of significance, *** indicates P < .001 level of significance. R-squared for revenge desires model= .21.

Table 8.8 STUDY 2: Table of Partially Standardised Indirect Effects of Empathy of Apology on Revenge Desires

	Effect	Bootstrapped SE	Bootstrapped LLCI	Bootstrapped ULCI
Total	-.13	.05	-.237	-.046
Empathy of Apology -> ISI -> Revenge Desires	-.04	.03	-.105	-.001
Empathy of Apology -> Anger -> Revenge Desires	-.06	.04	-.140	.012
Empathy of Apology -> ISI -> Anger -> Revenge Desires	-.04	.02	-.072	-.008

Notes: 'ISI' denotes the inferred selfish intentions of the manager during service recovery from double deviation.

As Table 8.7 illustrates, empathy of apology influenced inferred selfish intentions of the manager during service recovery from double deviation ($b = -.45$, $t = -.252$, $P < .05$). Support was provided for the mediating roles of inferred selfish intentions and anger, as the bootstrapped confidence interval for the total partially standardised indirect effects of empathy of apology on revenge desires did not contain zero (effect = $-.13$, bootstrapped confidence interval = $-.237$ to $-.046$). The bootstrapped confidence interval for the indirect route through inferred selfish intentions did not contain zero (effect = $-.04$, bootstrapped confidence interval = $-.105$ to $-.001$). Moreover, the indirect route through inferred selfish intentions during service recovery from double deviation and anger appeared to be a mediational path, as the bootstrapped confidence interval did not contain zero (effect = $-.04$, bootstrapped confidence interval = $-.072$ to $-.008$). The results indicate that the effect of the experimental condition on revenge desires was serially mediated by inferred selfish intentions of the manager during service recovery from double deviation and anger, thereby providing support for H4, H5 and H7.

Studies 1 and 2 provide an indication of which mediator may be the dominant mediator of the effects of empathetic recoveries on anger and revenge desires. Both inferred manipulative intentions and inferred selfish intentions appeared to mediate the effect of empathetic apologies on anger. However, the inspection of the R-squared values reveals a difference in the variance explained in anger and revenge across the two models. The R-squared value for revenge for the model incorporating inferred manipulative intentions was $.19$. In comparison, the R-squared value for revenge for the model incorporating inferred selfish intentions was $.35$. Therefore, the model that includes inferred selfish intentions would appear to explain more variance in revenge

desires. Moreover, the mediational relationship between the apology condition and anger in Study 2 represented full mediation, whereas Study 1 showed a partially mediated relationship. These findings suggest that the inferred selfish intentions variable may be a more pertinent mediator than inferred manipulative intentions.

Following the approach utilised in Study 1, a custom PROCESS model was constructed to test whether a model that included an association between intentionality and severity could better explain the effect of failure intentionality on desires for revenge. Within the custom PROCESS model, intentionality was positioned as X, severity represented M1, inferred selfish intentions during service recovery from double deviation represented M2, anger represented M3 and revenge desires represented Y. The empathy of the apology condition and gender were included as covariates. The bootstrapped confidence interval for the total partially standardised indirect effect of the intentionality condition on revenge desires did not contain zero (effect= .21, bootstrapped confidence interval= .09 to .34). The bootstrapped confidence intervals for the indirect effects through (a) severity and selfish intentions, (b) severity and anger and (c) severity, selfish intentions and anger did not contain zero. These findings indicated that the effects of intentionality were mediated by severity. However, the R-squared of the model of revenge was .35, indicating that the inclusion of a more complex mediational process did not explain more variance in the dependent variable. Moreover, the main manipulation of interest was the empathy of apology manipulation. Therefore, the more parsimonious model with empathy as the independent variable was retained in the thesis.

8.3.3 Discussion of Study 2

This section provides an overview of the findings of Study 2 and integrates insights from literature to inform the interpretation of the results. Each section covers a different part of the conceptual model. The first section discusses the effects of empathetic apologies on the downstream variables. The second section discusses the findings concerning intentionality of failure. The subsequent sections clarify the findings concerning the inferred intentions, anger and revenge desires variables.

8.3.3.1 Empathy of Apology

The results of Study 2 indicate support for H1a, as participants infer lower levels of selfish intentions of the manager during the service recovery from double deviation when the manager provides an empathetic apology. These findings resonate with previous research that documents the importance of how customers construe the presentation of messages during employee-customer interactions. Attribution theory, customer revenge (Joireman et al., 2013, 2016) and trust studies (Kim et al., 2004, 2006) indicate that individuals integrate diagnoses of the causes of events into their future intentions. Accordingly, trust repair strategies can improve relational outcomes by reassuring the individual of the firm's good intentions and reducing the perceived likelihood of recurrence of failure. Trust repair studies provide empirical evidence of a relationship between apology and integrity (Xie and Peng, 2009; Basso and Pizzutti, 2016). This research adds to the extant literature by highlighting how the presentation of firms' communications can alter customers' inferences concerning managers' motives. In so doing, this research extends the insights of trust studies to explain the effects of empathy of apology on customers' revenge desires.

8.3.3.2 Intentionality of Double Deviation

The results do not provide support for an association between the intentionality of the double deviation and the inferred selfish intentions for service recovery from double deviation. These results contrast with the findings of previous studies that indicate that inferred motives for particular actions can impact on evaluations of the characteristics of the individual. Previous studies provide evidence that individuals form inferences concerning the character of a transgressor based on the observation of instrumental rewards for the individual's transgression (Reeder et al., 2002, 2005). However, when severity was incorporated as a mediator of the effects of intentionality, support was provided for an effect of the intentionality of the double deviation on the inferred intentions of the manager during service recovery from double deviation. Therefore, further research is needed to study the interplay between intentionality of the double deviation, severity and empathy of apology.

The findings concerning the anticipated interaction effect between intentionality of the double deviation and empathy of the apology present a potential boundary to the matching hypothesis. Previous studies show that customers repeatedly prefer recovery tactics that are aligned with the form of failure experienced. However, the current study indicates that the failure and the recovery influence motivational inferences independently. A potential reason for this could be that empathy of apology is valued both by customers who infer that the failure is not intended and by customers who infer that the failure is intentional. This would indicate that the care and emotional contagion conveyed through empathy remains highly valuable for accidental and intentional failures.

8.3.3.3 Inferred Intentions

This study extends and builds on the study of Joireman et al. (2013), which provides evidence of a partially mediated relationship between inferred negative motives and revenge desires. The identification of a fully mediated relationship between inferred selfish intentions for service recovery from double deviation and revenge desires illustrates the pertinent role of inferred motives during the service recovery from double deviation phase. Moreover, this study provides a more fine-grained understanding of how service recovery from double deviation influences revenge desires.

A further finding of the current research was that the inferred selfish intentions appear to act as a mediator while inferred manipulative intentions appear to only partially mediate the effects of the empathetic apology on anger. This might reflect the conceptual characteristics of these inferences. Prior studies indicate that customers are aware that firm representatives are motivated by the firm's interests (Campbell et al., 1999). Such knowledge can manifest itself in the inference that marketing messages are manipulative, improper, deceptive or unfair (Isaac and Grayson, 2017). Consistent with this perspective, inferences of selfish intentions of the service provider may reflect higher-order motives which drive the motivation to manipulate customers. Therefore, the two concepts might be expected to play similar mediating roles, as customers may respond negatively to manipulation due to the inference that the manipulation is rooted in selfishness.

8.3.3.4 Anger and Revenge Desires

Researchers of workplace offenses contend that customers form attributions about the role played by other actors in the causation of negative events, which shape their

emotional responses and drive revenge desires (Acquino et al., 2001). This research finds support for H7, thereby supporting the association between anger and revenge desires. The anger-revenge desires relationship is replicated across failures that vary in terms of the perceived intentionality of the failure and the recovery tactics utilised to recover the failure. In studies 1 and 2, anger acts as a partial mediator of the effects of recovery tactics on revenge desires. This finding extends the model of service recovery from double deviation by indicating that empathy of apology operates through an emotional and a cognitive route.

8.4 Study 3

Studies 1 and 2 provide evidence in support of the effect of empathy of the apology on revenge desires and indicate that this effect can be robust across different levels of failure intentionality and overcompensation. Therefore, Study 3 explores whether the effects of empathetic apologies are subdued following failures that are particularly damaging for utilitarian, rather than social, resources. Moreover, studies 1 and 2 could be criticised due to the inability to capture real behaviour. Therefore, Study 3 aims to validate the conceptual model by collecting data concerning customers' real revenge behaviour and assessing the predictive capability of the independent variables and mediators within the model (refer to Figure 6.4). In so doing, this study aims to advance research by responding to one of the key recommendations for behavioural service failure and recovery research outlined by Grégoire and Mattila (2021). These recommendations indicate that researchers should attempt to engage in rigorous process testing and move beyond scenario-based experiments (p. 3). This section begins with Section 8.4.1, which presents the results of two chi-squared tests of the

effects of experimental manipulations on revenge behaviour. This will clarify whether the manipulations lead to significant differences in the dependent variable. Then, Section 8.4.2 presents the results of a PROCESS analysis which attempts to validate the model by linking the serial mediation route to a measure of real behaviour. Section 8.4.3 provides a brief discussion of the findings of Study 3.

8.4.1 Chi-Squared Analysis

Two chi-squared tests were run to assess the effect of the empathy of apology manipulation and the compensation condition on whether the participant chose to enter a prize draw for a voucher from the competing brand at the end of the study. ANOVA could not be applied to assess the relationship between the independent and dependent variable in Study 3, because the dependent variable was a proxy of revenge behaviour, which was dichotomous. The results indicated that empathy of apology did not significantly influence the proportion of participants who chose to switch. 44.2% of participants chose to switch in the low empathy condition, compared with 42.2% in the high empathy condition ($\chi^2(1) = 0.15$, $P = .70$, odds ratio = 0.92). The analysis of the effect of compensation showed that in the compensation condition, 33.30% of participants chose to switch to the competing brand, compared with 53.00% of participants in the no compensation condition. The chi-squared test showed this difference to be significant ($\chi^2(1) = 15.66$, $P < .001$, odds ratio = 0.23). These findings indicate that the compensation condition impacted on revenge desires, while the empathy of the apology condition appeared to be ineffective.

To check for any two or three-way interactions a Log-linear analysis was conducted (Field, 2013). The step summary was examined to identify the only

significant interaction in the model and the only significant interaction was the interaction between the compensation condition and revenge behaviour ($\chi^2(1) = 15.76, P < .001$) indicating that revenge behaviour was the only variable affected by the compensation provided. These analyses were followed up with a PROCESS analysis to assess mediation.

8.4.2 PROCESS Model 6

A series of PROCESS analyses were conducted to model the effects of experimental conditions and covariates on the mediators and the dependent variable. First, a custom PROCESS model was developed, which incorporated the empathy condition as the X variable and the compensation condition and gender as covariates. The model contained both parallel and serial mediation, as anger and helplessness were positioned as parallel mediators (M1 and M2, respectively) and revenge desires was positioned as a mediator (M3) of the effects of emotions on revenge behaviour. The effects of the antecedent variables on the likelihood of engaging in revenge behaviour were captured through a logistic regression model in PROCESS. The first model indicated that the empathy condition did not exert a significant effect on anger, while the compensation condition exerted a significant effect on anger. Anger in turn, influenced revenge desires and behaviours. The bootstrapped confidence intervals for the indirect effects of empathy on revenge behaviour contained zero. Therefore, a different model was constructed, in which compensation featured as the X variable and the empathy condition was incorporated as a potential moderating variable (W). This facilitated the exploration of the possibility that an interaction effect between the experimental conditions was drowning out the effect of empathy. However, this did not

appear to be the case, as the interaction between empathy of the apology and compensation did not significantly impact on any of the dependent variables.

Moreover, the analysis of the mediating variables across the two models clarified the nature of the mediational path, as helplessness did not significantly influence revenge desires or revenge behaviours. Therefore, helplessness was ruled out as an alternative mediator of the effects of double deviation service recovery on revenge desires and a final PROCESS model 6 was developed. This model is presented in Figure 8.3. Table 8.9 provides the full model and Table 8.10 provides the partially standardised indirect effects of compensation on revenge desires. Within the model, the compensation condition was specified as the X variable and the empathy of apology condition and gender were included as covariates. Anger was specified as M1, revenge desires were specified as M2 and revenge behaviour was specified as Y.

Figure 8.3 STUDY 3: PROCESS Model 6

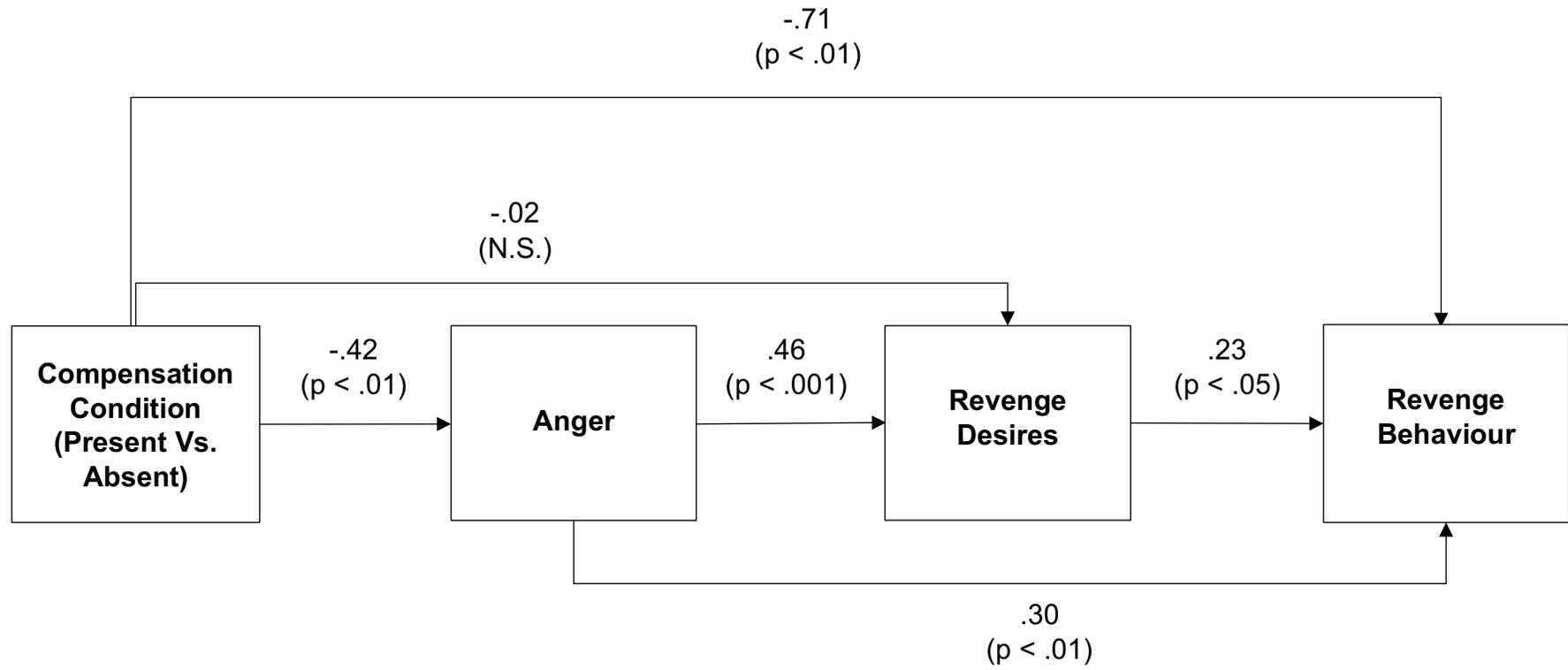


Table 8.9 STUDY 3: Tabulated Results of PROCESS Analysis

	OLS Model for Anger				OLS Model for Revenge Desires				Logistic Regression Model for Revenge Behaviour (Coefficient Represents Log-odds Metric)			
Variable	Coeff	SE	t	P-value	Coeff	SE	t	P-value	Coeff	SE	z	P-value
Constant	2.45	.14	17.05	P < .001***	.80	.13	6.24	P < .001***	-.95	.31	-3.07	.002**
Compensation Condition	-.42	.14	-3.03	.003**	-.02	.09	-.16	.87	-.71	.22	-3.24	.001**
Anger	-	-	-	-	.46	.03	13.38	P < .001***	.30	.10	3.16	.002**
Revenge Desires	-	-	-	-	-	-	-	-	.23	.12	1.97	.049*
Empathy of Apology Condition (High Vs. Low)	-.002	.14	-.02	.988	-.13	.09	-1.37	.173	-.10	.22	-.46	.647
Gender (female)	-.05	.14	-.33	.745	-.10	.09	-1.11	.267	-.02	.22	-.07	.942
R-squared	.02				.33				-2 log likelihood= 491.44; ModelLL= 45.65 (P< .001***)			
F statistic	3.07 (P= .03*)				46.70 (P< .001***)							

Notes: * signifies P < .05, ** signifies P < .01, *** signifies P < .001 and 'Coeff' signifies coefficient.

Table 8.10 STUDY 3: Table of Indirect Effects of Monetary Compensation on Revenge Behaviour

	Effect	Bootstrapped SE	Bootstrapped LLCI	Bootstrapped ULCI
Total	-.18	.08	-.347	-.047
Monetary Compensation-> Anger-> Revenge Behaviour	-.13	.06	-.273	-.030
Monetary Compensation-> Revenge Desires-> Revenge Behaviour	-.004	.02	-.060	.043
Monetary Compensation-> Anger-> Revenge Desires-> Revenge Behaviour	-.05	.03	-.121	.003

The model shows that the level of compensation significantly influences participants' likelihood to engage in vengeful behaviours towards the service provider, through the serial mediation of anger and revenge desires. Given that the model of the dependent variable is a logit model, the beta values cannot be interpreted as the effect of each variable on Y, rather the coefficients in the PROCESS output provide "the change in the logit of the outcome variable associated with a one-unit change in the predictor" (Field, 2013, p. 902). The odds ratio indicates the change in the odds of the event occurring as the predictor variable increases by one unit.

The table of results for the binary logistic regression of revenge behaviour indicated that the direct, logit effect of the compensation condition was $b = -.71$ ($P < .01$), which yields an odds ratio of 0.49 ($e^{-.71}$). The odds ratio value indicated that as the compensation condition changed from no compensation to simple compensation, the likelihood of engaging in revenge behaviour decreased. Moreover, the total indirect effect of compensation on revenge was $-.18$ (bootstrapped confidence interval: $-.35$ to $-.05$), indicating that compensation also operates through mediators. The only specific indirect path for which the bootstrapped confidence interval did not contain zero was the monetary compensation \rightarrow anger \rightarrow revenge behaviour path (effect = $-.13$, bootstrapped confidence interval: $-.27$ to $-.03$).

Considering the findings of the custom PROCESS model, the crosstabs are presented in tables 8.11 and 8.12. Overall, the PROCESS model indicates that empathy of apology is unlikely to influence revenge behaviour. The comparison of the choice of stores prior to the manipulations and after the manipulations reflects this, as approximately 34% of customers in the high empathy apology condition chose the costlier alternative before the failure and recovery, whereas approximately 42% of the

customers in the high empathy condition chose to frequent the costlier alternative after the failure and recovery. This signifies an increase of approximately 8% in the number of customers that desire to switch to a sub-optimal alternative after viewing a failure and an empathetic apology. In contrast, in the high compensation condition, approximately 31% of customers chose the costlier alternative before the failure and recovery, whereas approximately 33% chose to frequent the costlier alternative after the failure and recovery. Indeed, the behavioural consequences do not appear to be severely damaging following the failure incident if the firm offers full monetary compensation.

Table 8.11 STUDY 3: Pre-Failure Retailer Choice Frequencies by Condition

Empathy of Apology Condition			Compensation Condition		Total
			No Compensation	Simple Compensation	
Low Empathy of Apology	Retailer Choice	I would prefer to visit Stewart Jones' Cellar.	41	29	70
		I would prefer to visit Richard Smith Wines.	58	69	127
	Total		99	98	197
High Empathy of Apology	Retailer Choice	I would prefer to visit Stewart Jones' Cellar.	36	32	68
		I would prefer to visit Richard Smith Wines.	63	68	131
	Total		99	100	199
Total	Retailer Choice	I would prefer to visit Stewart Jones' Cellar.	77	61	138
		I would prefer to visit Richard Smith Wines.	121	137	258
	Total		198	198	396

Table 8.12 STUDY 3: Revenge Behaviour Frequencies by Condition

Empathy of Apology Condition			Compensation Condition		Total
			No Compensation	Simple Compensation	
Low Empathy of Apology	RB	.00= stick	46	64	110
		1.00= switch	53	34	87
	Total		99	98	197
High Empathy of Apology	RB	.00= stick	47	68	115
		1.00= switch	52	32	84
	Total		99	100	199
Total	RB	.00= stick	93	132	225
		1.00= switch	105	66	171
	Total		198	198	396

Notes: Stick denotes the decision to receive a voucher from Richard Smith Wines, whereas switch denotes the decision to switch to Stewart Jones' Cellar.

8.4.3 Discussion of Study 3

This section integrates insights from previous studies to inform the interpretation of the findings of Study 3. Evidence in support of the matching hypothesis was provided by the comparison of the effects of empathetic apologies and monetary compensation in studies 1 and 3. The strong effect of compensation on revenge behaviour in Study 3 highlights a potential caveat of the findings of Study 1. Although Study 1 indicated that customers would be more sensitive to psychological tactics in the post-double deviation phase, Study 3 indicated that customers may be sensitive to the distribution of financial benefits in the double deviation phase. Equally, customers did not appear to respond to an increase in empathy of apology regardless of the level of compensation provided in Study 3. The findings might indicate that customers appear to place a higher value on empathy of the apology following process failures than core or outcome-related failures. This is consistent with the theory that a process failure leads to a loss of social resources, thereby enhancing the importance of the warmth of the service provider (Choi et al., 2021). In contrast, outcome failures provide a signal of a firm's competence issues, which raises the importance of signals of competence.

However, these findings contradict the findings of Cremer (2010) that the inequitable distribution of gains leads individuals to prefer to receive symbolic rather than economic benefits. This may be due to the focus of Cremer (2010) on situations in which participants experience the unfair distribution of gains between individuals. In contrast, in Study 3, the customers experience the revocation of a potential gain. Perhaps when customers are promised a potential gain, customers feel highly attached to the offering, which instils customers with clearer expectations of compensation. Within this interpretation, support is provided for the matching hypothesis as customers

appear to be more responsive to monetary compensation when the perceived resource loss associated with the failure is utilitarian.

In this manner, these findings appear to be consistent with Kahneman's (1991) interpretation of price negotiations, whereby an anchoring-and-adjustment process leads counteroffers to be influenced by initial offers. Kristensen and Gärling (1997) also provide similar evidence that real-estate buyers' willingness to pay can be influenced by the comparison of sellers' offers with the reservation price. Thus, the results indicate that in contrast to when an individual receives less benefits than their peers, when an individual experiences a reduction of their potential gains, they experience a perceived loss of utilitarian resources. The perceived loss of utilitarian resources can, in turn, render empathy of the apology an ineffective recovery tactic. Overall, this research demonstrates that the effect of raising the empathy of the organisational recovery varies greatly depending on the type of failure that occurs.

To provide an overview of the results concerning the hypotheses that were tested in this research, Table 8.13 provides an overview of the research findings. The table provides each hypothesis, a summary of the research findings concerning each hypothesis, the significance level of the result obtained and the details of the study that was utilised to test each hypothesis. Having tested the underlying hypotheses of the conceptual model, this chapter closes with concluding remarks on the results of the analyses.

Table 8.13 Hypotheses and Findings

Hypothesis	Result	P-value	Study	Counterintuitive Empirical Findings
<i>H_{1a} Apologies with higher levels of empathy will lead customers to infer less selfish intent of the manager during service recovery from double deviation.</i>	Supported	*	2	-
<i>H_{1b} Apologies with higher levels of empathy will lead customers to infer less manipulative intent of the manager during service recovery from double deviation.</i>	Supported	***	1	-
<i>H_{1c} Apologies with higher levels of empathy will lead customers to infer less selfish intent of the firm during the initial service failure.</i>	Not supported	-	2	-
<i>H_{1d} Apologies with higher levels of empathy will lead customers to infer greater benevolent intent of the manager during service recovery from double deviation.</i>	Supported	***	2	-
<i>H₂ Higher perceptions of intentionality of the double deviation will lead to higher levels of customers' inferred selfish intent of the manager during service recovery from double deviation.</i>	Not Supported	-	2	-
<i>H₃ The effect of the empathy of the apology on customers' inferred selfish intentions of the manager during service recovery from double deviation is stronger when the initial failure is perceived to be intentional.</i>	Not supported	-	2	-
<i>H₄ Lower levels of customers' inferred selfish intentions of the manager during service recovery from double deviation will lead to lower levels of customer anger.</i>	Supported	***	2	
<i>H₅ Lower levels of customers' inferred selfish intentions of the manager during service recovery</i>	Supported	*	2	

<i>from double deviation will lead to lower levels of customer revenge desires.</i>				
H₆ <i>Monetary overcompensation will lead to lower levels of customer anger than simple monetary compensation.</i>	Not supported	-	1	The negative association between overcompensation and revenge desires was significant in Pilot Study 2 ($P < .01$), in which simple compensation was operationalised by offering the level of compensation participants deem to be appropriate. However, in Study 1, overcompensation influenced the inference of manipulative intent, but did not influence anger or revenge desires. In Study 1, the average of compensation expectations was utilised to represent simple compensation.
H₇ <i>Lower levels of customer anger will lead to lower levels of customer revenge desires.</i>	Supported	***	1, 2	
H_{8a} <i>The relationship between the empathy of the apology and customers' inferred selfish intentions of the manager during service recovery from double deviation is linear.</i>	Not supported	-	Pilot Study 1, Pilot Study 2	Participants displayed significantly different perceptions of empathy in the low and high empathy conditions, as well as the low and medium empathy conditions. However, the difference in perceived empathy in the medium and high empathy conditions was not statistically significant.
H_{8b} <i>The relationship between the empathy of the apology and customers' inferred selfish intentions of the manager during service recovery from double deviation is non-linear.</i>	Not supported	-	Pilot Study 1, Pilot Study 2	

8.5 Concluding Remarks

This chapter presented the results of the analysis of two pilot studies and three main studies. The pilot studies established realistic double deviation scenarios and valid experimental manipulations for the level of empathy of the organisational apology and compensation conditions used in the main studies. Study 1 provided evidence that the empathy conveyed through the organisational apology can influence customers' desires for revenge to a greater extent than monetary overcompensation and that the relationship may be mediated through inferred manipulative intentions and anger. Study 2 clarified the nature of the inferred motives that mediate the effects of empathetic apologies on desires for revenge. The inferred selfish intentions during service recovery from double deviation appear to be more influential than the inference of benevolent motives during service recovery from double deviation and the inferred motives for the initial service failure.

Together, studies 1 and 2 indicate that customer perceptions of firms' motives, rather than the actual firm motives, are pertinent drivers of customers' revenge desires following double deviations. Moreover, the recovery tactics instigated by the firm can be leveraged to encourage divergent motivational inferences without incurring the financial cost associated with overcompensation. However, Study 3 provided a caveat to these findings, by indicating that empathetic apologies cannot be utilised to substitute for simple monetary compensation following outcome failures. The next chapter highlights how the research findings extend extant theories of service recovery from double deviation.

CHAPTER 9: DISCUSSION

9.1 Introduction

The objective of this research is to elucidate the implications of empathetic apologies for customers' revenge desires following double deviations. To test the hypotheses, a series of scenario-based and behavioural experiments were conducted, which tested the hypotheses associated with the different stages of the conceptual model. The analysis and results section utilised the experimental data to evaluate whether the hypotheses were supported. This section will highlight the main insights gleaned from the studies and how these insights extend theories of service recovery from double deviation.

Section 9.2 provides an overview of the research focus and design. In Section 9.3, the theoretical contributions of the research to the service recovery literature are presented to further extant understanding of service recovery after double deviation. The contributions to the literature are structured according to two types of contribution, including: theoretical and methodological. This leads into Section 9.4, which includes a discussion of the implications of the research for policy makers. Following this, section 9.5 outlines a set of insights for practitioners and Section 9.6 provides an overview of the main limitations of the research and suggestions for future research in the field. Section 9.7 provides concluding remarks.

9.2 Summary of Empirical Research

This research builds on models of the association between double deviations and customer revenge to establish a conceptual model of the implications of empathetic apologies for customers' revenge desires and behaviours. Prior studies provide explanations of the multiple factors that can impact on post-double deviation desire for

revenge (Grégoire et al., 2010; Joireman et al., 2013; Grégoire et al., 2018), while largely neglecting the exploration of how subtle differences in the presentation of an apology by service providers might impact on customers' revenge behaviours. Equally, prior recovery research focuses on the presence and absence of apologies, with a few exceptions, which either focus on single deviations (e.g., Roschk and Kaiser, 2013) or different apology dimensions to the dimensions studied in the present research (e.g., Antonetti et al., 2018). Therefore, the aim of this research was to enhance extant understanding of three pertinent service recovery issues. The three issues will be explained, before clarifying how the studies furthered extant understanding in three research areas.

The first issue concerns whether empathetic apologies can deter customers from revenge following double deviations. To explore this issue, the effects of empathetic apologies were compared with the effects of monetary overcompensation and the intentionality of double deviation. The second issue concerns the elucidation of the mediational paths between empathetic apologies and revenge desires. This was studied by testing multiple alternative intentional mediators. The third issue focuses on validating the model of service recovery from double deviation by measuring customers' revenge behaviours in real time.

The exploration of the relative effects of empathetic apologies indicates that empathy of the apology may play a major role in recovering from double deviations. Studies 1 and 2 indicated that the effects of empathetic apologies exceeded the effects of monetary overcompensation and intentionality information following double deviations. Empathetic apologies also appeared to operate through the alteration of customers' inferences about managers' selfish and manipulative motives for double

deviation recovery. However, Study 3 indicated that empathy of the apology could not substitute for the restoration of customers' perceived utilitarian losses. Furthermore, Study 3 indicated that the firm's service recovery from double deviation could lead to a reduction in revenge behaviours both through an emotional and a cognitive route. Overall, the conceptual model forwarded in this research enhances extant understanding of the ways empathetic apologies exert an impact on revenge desires in the post-double deviation phase.

9.3 Contributions

This section discusses how the research findings summarised in table 8.13 provide theoretical and methodological contributions for the service recovery literature. Section 9.3.1 provides a summary of the ways in which the findings change extant understanding of the concepts studied. This includes highlighting the key contributions of the studies to attribution theory, models of post-double deviation responses and the matching hypothesis. This section also reflects on the approach to measurement of the variables to provide insights into the effects of different forms of apology wording. Section 9.3.2 reflects on the benefits and limitations of the designs that were used to provide methodological insights for future research.

9.3.1 Theoretical Contributions

This study adds to attribution theory in service recovery by indicating that empathy of apology represents an antecedent of attributional inferences. This provides insights into the ways apologies recover failures, by highlighting that the empathy conveyed through the apology can reassure customers of the reasons for the firm's service

recovery effort. This can then translate into lower revenge desires. The study indicates that managers do not need to overtly state the recovery motives to influence the inferred motives for recovery. Rather, the empathy conveyed appears to reassure customers that firms are not simply instigating a recovery for the benefit of the firm. Thus, empathy appears to guide key attributions that can be thought to be informative of the nature of individuals (Reeder et al., 2002). In this manner, the findings extend the findings of Antonetti et al. (2018) concerning intensity of apology to the empathy of apology dimension.

The study advances the conceptual understanding of the attributions of intent that drive revenge desires. The intentions during service recovery from double deviation, rather than the intentions during service failure, appear to be the pertinent mediators of the effects of empathy of apology on revenge desires. This contribution extends the multiple inference model of dispositional inference (Reeder, 2009) by indicating that customers place a different level of weight on different types of motives. Indeed, inferred selfish and manipulative intentions appear to be more predictive of revenge desires than inferred benevolent intentions. This lends further credence to the theory that negative motives may be deemed to be more diagnostic of the morality of an individual than positive motives (Reeder and Brewer, 1979). This could explain why negative motives drive the desire to punish the individual. Thus, evaluations of selfishness and manipulateness appear to be more pertinent in double deviation situations.

Moreover, the findings of this research advance understanding of the concept of inferred intentions by highlighting that customers' motive evaluations appear to be highly situation specific. This conceptualisation can be understood with reference to

the conceptualisation of greed. Crossley (2009) explains how individuals may evaluate the behaviour of others using a similar process to the approach of jurors in the criminal courts, such that individuals assess the “*mens rea*” (criminal intent) associated with the crime. Similarly, customers’ decision-making processes post-service recovery from double deviation might be considered to reflect those of a ‘parole board’. Within this conceptualisation, customers might become less focused on the motives during service failure and more concerned with the motives of the manager during double deviation recovery. Indeed, Carroll (1978) draws on self-reported decisions of parole-boards to explain that parole boards do not evaluate the crime for the purpose of punishment, rather they form predictions concerning the risk of future offences. Thus, the determination of customers’ revenge desires might resemble the decision of a parole board concerning whether to end the punishment of the individual.

Furthermore, this research extends the matching hypothesis to combined recovery strategies and indicates that just as initial service recovery may be conceptualised as bundles of resources (Smith et al., 1999), double deviation recoveries can be conceptualised as bundles of resources. The current research indicates that simple compensation influences anger, revenge desires and revenge behaviour, whereas overcompensation does not appear to be influential in double deviation recovery. Accordingly, effective recovery may involve the restoration of each deficient failure resource, such that once utilitarian resources have been replenished, monetary compensation may be less effective at alleviating revenge desires. In this regard, just as low levels of compensation may be ineffective at improving relational outcomes (Basso and Pizzutti, 2016; Wei et al., 2020), excessive financial benefits do not appear to be important in double deviation recovery.

A further contribution of the findings is the conceptual clarification of the differences between revenge desires and revenge behaviours. Although the two responses appear to be associated, the antecedents of the two responses appear to be divergent. In this study, the relationship between monetary compensation and revenge desires was fully mediated by anger. However, the relationship between monetary compensation and revenge behaviour was partially mediated by anger. Bies and Tripp (1996) describe how employees' revenge desires may manifest in highly emotional and vivid fantasies of the revenge that employees could exert on their adversaries. However, it is noted that when employees must decide whether or not to engage in revenge behaviour, they appear to consider the self-interested motives for refraining from revenge. This indicates that customers' revenge desires may be more emotionally driven than customers' revenge behaviour and the current research appears to provide support for this conceptualisation.

The findings of this research challenge the matching hypothesis, by providing evidence that the importance of the empathy of the apology remains consistent when customers experience failures with different levels of intentionality. Indeed, regardless of whether the double deviation occurs despite an employee's best efforts or due to an employee's lack of commitment to problem resolution, the empathy of the apology remains effective. This provides further evidence of the pervasiveness of the role of empathy in service recovery strategies following double deviations and indicates that empathetic apologies may be highly effective recovery tactics. Therefore, the current research indicates that while the matching hypothesis appears to be highly predictive of customers' responses to utilitarian or psychological recovery tactics, the matching hypothesis may be less predictive of customers' responses to failure intentionality.

The findings of this study contribute to debates concerning the ways psychological and utilitarian recovery tactics interact with each other. The present study does not support an interaction effect between apology and compensation. This highlights an important conceptual difference between empathetic apologies and downward social comparisons. DSCs appear to be counterproductive at high levels of compensation (Bonifield and Cole, 2008). This effect might be explained by the perceived inappropriacy of simultaneously acknowledging fault and negating responsibility (Walster et al., 1973). However, empathetic apologies appear to be compatible with full compensation and overcompensation. This resonates with findings in the organisational justice literature (Bies, 1986; Greenberg, 1990), which indicate that the quality of interpersonal treatment remains important to experience evaluations, regardless of the extent of individual gains.

This research contributes to the debate concerning the consequences of apology wording. Across two pilot studies, participants in the medium and high empathy of apology conditions displayed higher perceptions of empathy of the apology than participants in the low empathy of the apology condition. However, none of the studies provide evidence that participants perceive the high empathy of apology condition to be significantly more empathetic than the medium empathy of apology condition. This suggests that customers do not perceive higher levels of empathy when the service provider displays (a) a more fine-grained understanding of the sources of aggravation in the service failure experience or (b) a higher level of intensity of negative feelings. These findings contrast with the findings of Herhausen et al. (2023) concerning the effects of high vs. medium empathy recoveries. However, the manipulation that was utilised in the study conducted by Herhausen et al. (2023)

included multiple other tactics beyond the boundaries of the definition of empathy used in this study. This indicates that further research is needed to examine high empathy manipulations which do not simultaneously manipulate other psychological tactics such as validation and appreciation. It should be acknowledged that the effect of the manipulation used in the current research may have been found to be more effective if video vignettes had been utilised. Therefore, although the results of the current research indicate that customers may merely be able to detect the presence of low and high empathy, further research is needed to clarify whether the relationship between empathy of the apology and inferred selfish intentions is linear.

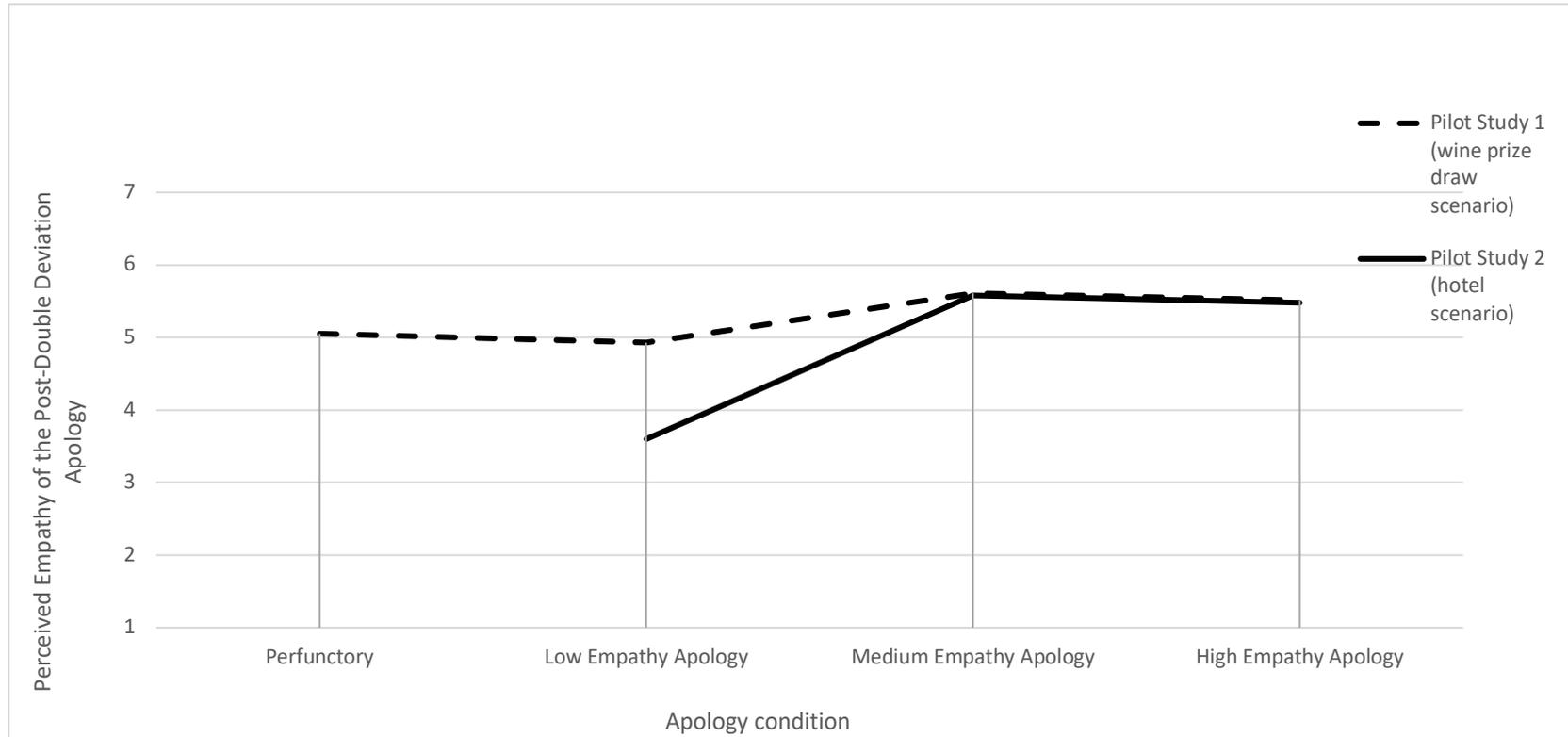
The pilot studies also indicate that customers do not perceive low empathy apologies to be more empathetic than perfunctory apologies. Thus, although individuals have been shown to use diverse gradations of apology according to different transgression characteristics in social situations (Schlenker and Darby, 1981), customers appear to be less discerning of the apologies they receive from firms. The findings indicate that customers may possess thresholds for the level of empathy expected. These findings extend the findings of Rosch and Kaiser (2013) that low empathy apologies are no more effective than the absence of an apology and highlight that perfunctory and low empathy apologies can also evoke similar responses. This suggests that findings concerning the recovery effect of apologies can be highly influenced by the phrasing of the apology and that researchers should consider the implications of the selection of apology phrases in studies of the apology tactic.

The findings of the two pilot studies may be explained by the concept of a zone-of-tolerance for recovery tactics (Hogreve et al., 2017; Pacheco et al., 2019). Studies of recovery time indicate that customers' compensation expectations are characterised

by a zone-of-tolerance of acceptable timeliness of recovery. Times which exceed the time zone-of-tolerance are considered to fall short of customers' expectations of timeliness, thereby instigating dissatisfaction. By the same measure, times which fall below the zone-of-tolerance do not alter customer trust or compensation expectations.

This research does not provide sufficient evidence for a zone-of-tolerance for empathy, as revenge desires are only compared for two significantly distinct levels of perceived empathy. However, the finding that customers do not distinguish between a perfunctory and a low empathy apology, or between a medium empathy and a high empathy apology indicates that there may be a 'zone-of-sensitivity' for empathetic displays. Customers do not appear to be sensitive to the demonstration of a basic understanding of the failure experience. Similarly, describing the intensity of negative feelings experienced does not appear to raise customers' perceptions of empathy. Figure 9.1 provides a graph to convey this effect.

Figure 9.1 Zone-of-Sensitivity



9.3.2 Methodological Contributions

This research presents methodological contributions concerning the covariates that were included in the analyses. By highlighting the covariates that were found to be significant in the empirical studies, this section provides insight into how future studies can better control for the effects of confounds in scenario-based experiments. The studies shed further light on the role of severity in the model of post-double deviation responses, indicating that severity plays an antecedent role in influencing customers' perceptions of firms' motives. Throughout this research, perceptions of severity of the double deviation influence customers' inferences of managerial intent such as: the inference of manipulative intentions during service recovery from double deviation (Study 1) and the inference of selfish intentions for service recovery from double deviation (Study 2). The association between severity of failure and recovery expectations is noted in prior research (Hess et al., 2003), which indicates that customers expect an excellent recovery when a severe failure occurs. This notion is highly consistent with equity theory (Adams, 1965), which indicates that individuals seek parity in terms of the costs and benefits faced by the parties involved in a relationship.

An important question arising from this finding relates to why severity appears to be much more influential than blame in guiding post-service recovery from double deviation evaluations. A potential explanation could be that this research only considered failures for which the firm is likely to be deemed to be responsible (i.e., stocking and reservation problems). Therefore, the perception that the failure is a severe aggravation may become the more diagnostic evaluation. Thus, this research illustrates that even within experimental designs which aim to control customers'

attributions and severity perceptions, a high level of subjectivity of evaluations remains, which can influence the conceptual model. Future research could consider testing different levels of waiting times to ascertain a level of waiting time which leads to highly convergent severity perceptions.

In study 1, stability was found to be a significant driver of the influence of manipulative intentions and revenge desires. This indicates that evaluations of stability may form part of the established cognitions of the customer revenge model and should be incorporated into the model. Indeed, the underlying rationale for the inclusion of the 'double deviation' variable in the model of customer forgiveness presupposes that frequency of failure drives customers' desire for revenge (Joireman et al., 2016). The current research indicates that subjective evaluations of stability remain important in double deviation situations. Therefore, future studies could incorporate further information to guide stability attributions. For example, information about previous experiences with the firm could be used to constrain stability attributions.

This research also presents interesting findings concerning the role of gender in the model of service recovery from double deviation. Grégoire and Fisher's (2008) study of customer retaliation and reparatory behaviours indicates that males report a higher level of revenge behaviours. However, multiple service recovery studies indicate that gender may not play a major role in post-double deviation responses (Grégoire et al., 2009, 2010). As such, gender was treated as a covariate in this research and was accounted for by trying to obtain a gender-balanced sample. However, study 2 indicated that gender influenced the desire to engage in revenge behaviour. Thus, the gender influences that have been observed in service recovery encounters may influence post-recovery responses. Iacobucci and Ostrom (1993)

note that female customers may be more likely to be communally oriented, whereas male customers may be more goal oriented. Consistent with these findings, this research indicates moderate support for the notion that female customers may be less likely to engage in retaliatory behaviours. This might also reflect the findings of psychological studies, which find male individuals to display higher levels of negative traits such as Machiavellianism (Austin et al., 2007). Indeed, one of the characteristics of Machiavellianism is amoral manipulation (Musarra et al., 2023), which could be viewed as a form of dysfunctional behaviour. Together these findings indicate that gender could be incorporated as an independent variable in future studies, to assess whether gender interacts with empathetic apologies to influence their effectiveness. Moreover, the findings reaffirm the need to incorporate gender as a covariate in models of service recovery from double deviation, rather than simply assume that a gender-balanced sample accounts for the effects of gender.

9.4 Policy Implications

This research presents valuable insights for policy makers, as the studies inform the understanding of how to reduce the number of complaints that require intervention of an ombudsman. By enhancing firms' awareness of customers' increased likelihood to pursue extremely negative behavioural responses when the firm fails to recover, policy makers can encourage firms to divert effort to double deviation recovery. Moreover, the studies show that once utilitarian needs have been fulfilled, customers prioritise the psychological benefits offered by the recovery over additional financial benefits. Therefore, this research highlights the importance of disseminating information about effective recovery practices, such as focusing on the aspects that customers appear

to prioritise. Indeed, the findings indicate that focusing the recoveries on aspects that are most damaged during double deviation represents an effective method to enhance recovery performance. In this regard, psychological recovery tactics that shape customer perceptions of the ethicality or integrity of the firm can act as a further protection against complaint escalation.

The findings indicate the need to carefully balance both utilitarian and psychological recovery. Indeed, the mere provision of an apology is unlikely to provide the necessary signal of firms' intentions for instigating the recovery. However, both overcompensation and excessive displays of empathy appeared to be ineffective in this research. Indeed, overcompensation appeared to be ineffective in terms of alleviating the inference of negative motives, anger and revenge desires. Equally, policy makers could educate firms about the importance of providing the necessary levels of empathy and compensation, to increase recovery efficiency and reduce the demands placed on employees.

Moreover, service recovery from double deviation provides an opportunity for firms to alter the outcome of the failure, even after the customer has received cues of incompetence and integrity deficiencies. Therefore, this research concurs with previous studies that indicate that tactics that are diagnostic of firms' underlying intentions can be used to restore trust following competence and integrity-based violations. Accordingly, policy makers could educate firms concerning the possibility of second chances following double deviations and the importance of balancing recovery resources in an effective manner. Moreover, policy makers could disseminate information about the importance of empathy in managing relations and how individuals can signal empathy through apologies. Identifying some of the key phrases

that should be included in apologies could encourage firms and individuals to utilise the appropriate language to de-escalate complaints. Phrases could include aspects which highlight the understanding of the aggravating aspects of the failure, as well as the negative feelings of the individual concerning the service failure.

9.5 Managerial Implications

The study highlights the multifaceted nature of customers' intentional inferences. The findings suggest that one recovery tactic can be associated with multiple forms of inferred intentions of the manager, which can be associated with different behavioural consequences. Therefore, it may be beneficial to clarify the desirable behavioural outcomes, for example, whether to reduce avoidance or revenge. Then, the firm may choose to prioritise the inferred intentions that appear to be pertinent to the behavioural consequence. Previous studies indicate that inferred benevolent intentions can promote repatronage and reduce avoidance, whereas this study indicates that inferred selfish intentions and manipulative intentions can be indicative of customer vengeance. Thus, while minor failures may be adequately recovered by fostering more positive perceptions of service provider motive, severe failures may warrant the prioritisation of customers' negative inferences. The current research highlights that carefully crafted apologies can reduce inferences of negative motive.

A practical insight can be gleaned from the comparison of the effect of the high empathy apology condition with effect of the medium empathy apology condition on customers' empathy perceptions. While "I feel very bad about it" and "I feel bad about it" appear to be viewed to be superior to the absence of such phrases, customers do not appear to perceive different levels of empathy according to the presence or

absence of the word “very”. This indicates that marketing managers should endeavour to understand how customers respond to the wording of the apology, to refrain from providing excessive apologies, which may be counterproductive.

The current research highlights the need for managers to identify customers’ monetary compensation expectations and align recovery tactics with customer expectations. Although previous research reveals the beneficial effects of overcompensation for service recovery satisfaction and repatronage (Gelbrich et al., 2015, 2016), this research shows that overcompensation may be less effective for customers who have experienced multiple failures. This research indicates that once the firm has provided full compensation, the emphasis moves from potential economic benefits to the restoration of the psychological resources that were damaged during double deviation. However, the recovery effect of psychological recovery tactics also appears to be bounded by the failure context. In the case of online stock-outs, customers appear to be focused on utilitarian losses to the extent that when simple compensation is provided, empathy of apology appears to be ineffective.

The results concerning the effects of covariates also present valuable insights for managers, as stability perceptions emerged as a driver of the inference of manipulative intentions following double deviations. Therefore, this research indicates that managers may benefit from training employees to seek-out information concerning customers’ perceptions of the frequency of occurrence of the failure. Indeed, the identification of customers who harbour general, negative perceptions of the firm could help to isolate the customers that might be most responsive to recovery tactics that reduce the inference of negative motives.

9.6 Limitations and Future Research Directions

This research is limited by the focus on the relational consequences of revenge desires and behaviours. Researchers acknowledge the importance of considering multiple behavioural responses including avoidance (Grégoire et al., 2009) and reparation (Joireman et al., 2013), as customers may display contradictory and competing behavioural responses. Therefore, future studies could simultaneously measure revenge and reparatory behaviours to clarify which behavioural responses are the dominant post-recovery outcomes. This research also only considered one experimental manipulation for high empathy of the apology. Future research could test alternative forms of apology wording that might yield beneficial effects that exceed the effects observed in this study. Equally, the potential back-firing effects of empathetic apologies remains a promising avenue for future research, which could aid the understanding of the optimal apology wording. Such research could explore whether a poorly worded statement of empathy or inappropriate display of empathy can increase the inference of negative motives following service failure.

A further limit of the research is that none of the studies explore potential interactions between the recovery tactics and stability, controllability and severity. Previous studies indicate that attributional evaluations concerning the failure moderate the effects of utilitarian recovery tactics. The focus of this research was to provide initial evidence of a linkage between empathy of apology and inferences of motive and revenge, as well as compare the effects of apologies with those of other tactics. Therefore, severity, blame and stability were treated as covariates. However, the relationships between these variables may be more complex when the failures vary to a greater extent in terms of severity, blame and stability. Future studies might explore

whether different types of attributions such as controllability and stability interact with empathy of the apology to affect attributions of selfish or manipulative intent. Moreover, this research did not address the relative importance of each of the apology dimensions in reducing revenge desires; this could also be addressed in future studies.

Key issues associated with the research design limit the generalisability of the research findings. The research was only conducted in two service contexts: hotels and online wine retailers. This increased the generalisability of the findings as the research questions could be studied in offline and online contexts, in exchanges of varying duration and in services in which customers display varying levels of interactive expectations. The consideration of contrasting cases highlighted the disparity in the effects of empathetic apologies across different failure contexts. However, this also limited the capability to isolate the features of the failure context that moderate the effect of empathy of the apology. Moreover, the services both concern hedonic purchases rather than utilitarian purchases. Thus, customers may possess different expectations in utilitarian exchanges, in which psychological and relational benefits may be less valued by customers (Ringbergh et al., 2007). Therefore, future studies could compare findings for more utilitarian services such as automotive repair services, in which apologies have been found to be comparatively ineffective in past studies.

Moreover, the relationships might differ when services are characterised by low customer-contact and when the failure is experienced by multiple customers. Therefore, the relationships could be studied in the context of service crises by telecommunications companies. A further limitation arises due to the recruitment of samples from online recruitment platforms. This method might attract consumers who are more sensitive to the financial benefits provided in the recovery. Nevertheless, this

also strengthens confidence in the findings of Study 1 and Study 2 that empathetic apologies may be more effective than monetary overcompensation, as it might be anticipated that paid participants would be particularly responsive to the utilitarian tactic.

The present study applied a measure of perceived empathy of the apology that was adapted from Fehr and Gelfand's (2010) study of individuals' expectations of apology dimensions. Future studies might consolidate this scale by testing it within different contexts and with different types of apology manipulations. Researchers might also consider jointly, alternative mediators of the effects of apologies. Research by You et al. (2020) considers the effect of apology to operate through self-esteem and justice perceptions. Self-esteem was not included as an alternative mediator in this study, as the focus of the research was to assess whether empathetic apologies could influence inferred intentions. Nevertheless, future studies might explore the relative importance of inferred intentions, self-esteem and justice perceptions in the model of service recovery from double deviation.

9.7 Concluding Remarks

This chapter explicated the theoretical contributions of the empirical findings presented in Chapter 8. Throughout this chapter, the implications of the effect of empathy of the apology on inferred intentions, anger and revenge desires for service recovery research were discussed. It was argued that empathetic apologies appear to be highly robust recovery tactics to reduce customers' revenge desires and can be more influential than the provision of overcompensation following double deviations. This chapter also explained how support was provided for the serially mediated route from

recovery tactics, through inferred intentions and anger to revenge desires. Multiple empirical and methodological contributions were presented, which enhance the predictability of the effects of empathetic apologies and clarify how covariates can intercede to influence recovery outcomes. The chapter then addressed the managerial and policy implications and the limitations of the research. In the penultimate section, the future research avenues arising from the study were addressed.

This thesis addressed customers' revenge desires following different types of service recovery from double deviation and contributes to the service recovery literature by providing evidence of the links between empathy of apology and inferred motives within the model of service recovery from double deviation. This research focused on testing the effect of empathy of the apology on desire for revenge, clarifying the mediational paths between the two concepts and establishing an effective balance of utilitarian and psychological tactics to recover from failure. The main contribution of the research concerns the clarification of the concept of inferred intentions within the model of service recovery from double deviation. This is achieved by measuring multiple types of intention, including inferences of benevolent intentions, selfish intentions and manipulative intentions, which vary in their ability to drive revenge desires. The studies show that when the firm does not overtly state its intentions, customers form intentional inferences that drive their behaviour.

Over the course of two studies, inferred selfish intentions for service recovery from double deviation and inferred manipulative intentions for service recovery from double deviation emerged as mechanisms by which empathetic apologies alleviate customers' anger and revenge desires. This, in turn, extends attribution theory by

highlighting how empathy of apology can signal lower levels of negative intentions of the manager. Therefore, four contributions were achieved in this research:

- the extension of the attribution-based model of service recovery from double deviation to include empathy of apology,
- the clarification of the roles of empathetic apologies and inferred managerial intentions during service recovery from double deviation,
- the elucidation of the key motivational mediators of the effects of recovery tactics on revenge desires and
- the extension of resource exchange theory to explain customer responses to combinations of recovery tactics in the double deviation phase.

Overall, the dominant implications of this research concern the need for managers to consider how recovery tactics might influence customers' inferred motives during service recovery, as well as the need to select recovery tactics that restore the dominant losses associated with the failure. This expands knowledge by showing that in addition to explanations and types of recovery tactic, the level of recovery tactic can be conceptualised as a signal of the intentions of the firm. Thus, the studies indicate that both the matching hypothesis and signals of the integrity of the firm play vital roles in service recovery from double deviation. Moreover, the prominence of these service recovery priorities is shown in cases where the customer receives both monetary compensation and apologies to further aid the understanding of service recovery optimisation. Finally, this research promotes the empathy of the apology as a highly effective recovery tactic following double deviations, which reduces the inference of selfish and manipulative intent and may render the firm less vulnerable to back-firing effects.

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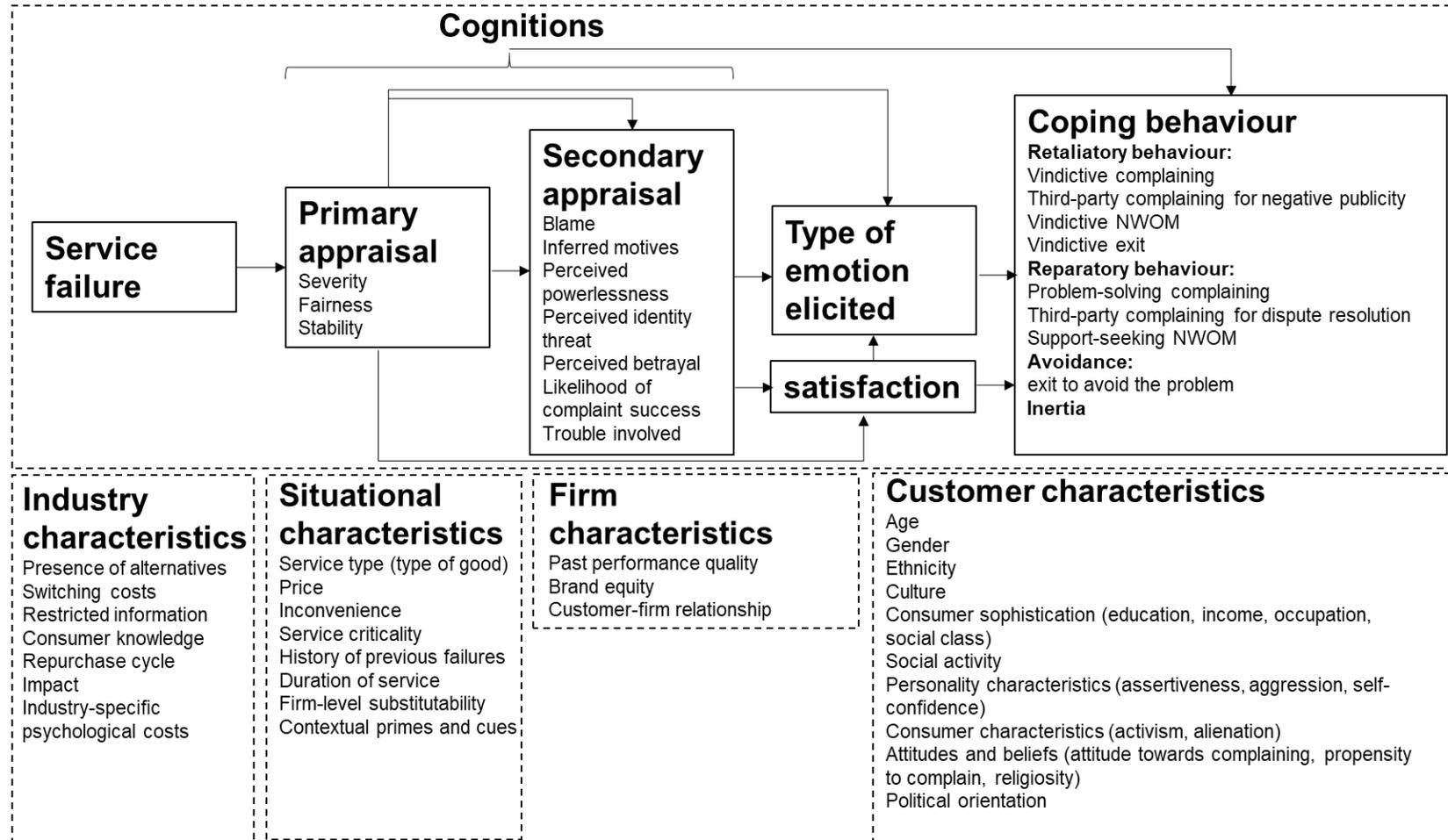
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APPENDICES

Appendix 2.1 Model of Customer Responses to Service Failure



Extending and building on Cai et al. (2018), Newton et al. (2018), Sembada et al. (2016), Van Vaerenbergh et al. (2014), Gelbrich (2010), Grégoire et al. (2009), Grégoire and Fisher (2008), Velázquez et al. (2006), Chebat et al. (2005), Mattila et al. (2003) and Richins (1987).

Appendix 2.2 Table of Customer and Organisational Factors Influencing Complaining Behaviour

Variable	Effect on CB			Study
	+	-	N.S.	
Gender			x	Bearden and Mason (1984)
Age	x			Shoham et al. (2012)
		x		Bearden (1983), Bearden and Mason (1984), Gronhaug and Zaltman (1981)
			x	Bolfing (1989), Warland et al. (1975), Shuptrine and Wenglorz (1981)
Income	x			Bearden (1983), Bearden and Mason (1984), Gronhaug and Zaltman (1981), Warland et al. (1975)
			X	Bolfing (1989), Singh (1990)
Education	x			Warland (1975)
			X	Bearden (1983), Bearden and Mason (1984), Gronhaug and Zaltman (1981), Singh (1990)
Satisfaction With Firm		x		Bolfing (1989)
Satisfaction With Business System	x			Bearden (1983)
Assertiveness/Self-Confidence	x			Richins (1987, 1983a), Bolfing (1989)
			x	Shoham et al. (2012), Bearden (1983), Bearden and Mason, (1984), Gronhaug and Zaltman (1981)
Attitude Towards Complaining	x			McQuilken and Robertson (2011), Blodgett et al. (1995), Velázquez et al. (2006)
			x	Bodey and Grace (2007), Voorhees et al. (2006), Bearden and Mason (1984),
Seeking Redress Propensity (A Component of Assertiveness)	x			Chebat et al. (2005)
			x	Bearden and Mason (1984)
Aggression	x			Richins (1987, 1983a)
Powerlessness			x	Bearden and Mason (1984)
Involvement	x			Sharma et al. (2010)
			x	Gronhaug and Zaltman (1981)
Self-Efficacy	x			Shoham et al. (2012), Bodey and Grace (2007)
Perceived Control	x			Bodey and Grace (2007)
			x	Shoham et al., (2012)
Machiavellianism	x			Shoham et al., 2012, Bodey and Grace (2007)
		x		Bearden and Mason (1984)
Consumer Alienation			x	Bearden (1983)
Risk-Taking	x			Bodey and Grace (2007)
Impulsivity	x			Sharma et al. (2010)
Self-Monitoring		x		Sharma et al. (2010)
Information Control	x			Mittal et al. (2008)
Likelihood of Redress/ Perceived	x			Velázquez et al. (2006), Blodgett et al. (1995), Richins (1987), Richins (1983b), Singh (1990)

Responsiveness of Firm			x	Bearden and Mason (1984)
Service Provider's Solicitation of Complaints			x	McQuilken and Robertson (2011), DeWitt and Brady (2003)
Service Guarantee	x			McQuilken and Robertson (2011)
Trouble Involved in Making a Complaint		x		Richins (1987, 1983b), Bolfing (1989)
Cost and Benefit Evaluation/ Worthwhileness of Complaining	x			Singh (1990)
Trust		x		Bearden (1983)
Buying Experience	x			Gronhaug and Zaltman (1981), Bolfing (1989)
Consumer Activism	x			Warland et al. (1975), Bearden (1983), Bolfing (1989)
Social Activity/ Social Resources	x			Richins (1987)
			x	Gronhaug and Zaltman (1981)
Social Class	x			Warland et al. (1975)
			x	Singh (1990)
External Constraints Inhibiting Complaint Ability (not tied to a particular consumption experience)			x	Bearden and Mason (1984)
			x	Bearden (1983)
Competence	x			Bolfing (1989)
			x	Bearden (1983)
Product or Service Importance	x			Velázquez et al. (2006)
			x	Blodgett et al. (1995)
Product Class/ Service Category			*significant differences occur with product class or service category*	Richins (1987), Shuptrine and Wenglorz (1981), Singh (1990)
Length of Ownership/ Service Duration			x	Richins (1983b)
			x	Richins (1987), Bolfing (1989)
Purchase Frequency with Firm		x		Fornell and Didow (1980)
			x	Bearden (1983)
Tie Strength		x		Mittal et al. (2008)
Relationship Duration		x		Mittal et al. (2008)
Rapport		x		DeWitt and Brady (2003)
Alternative Provider	x			Singh (1990)
		x		Fornell and Didow (1980)

Notes: 'CB' signifies complaining behaviour. '+' indicates a positive effect and '-' indicates a negative effect.

Appendix 3.1 Extant Typologies of Service Recovery Tactics

Estelami (2000)	Davidow (2003)	Gelbrich and Roschk (2011a, p.26)	Van Vaerenbergh et al. (2019)
Compensation discounts, refunds and replacement	Redress Apology	Compensation “Monetary (e.g., 50% discount), cash equivalent (e.g., product replacement) psychological (e.g., apology) benefit or response outcome a customer receives from the company.” This form of recovery can be divided into tangible and psychological forms of compensation.	Compensation Immediate monetary compensation, delayed monetary compensation, new/exchanged goods, new/reperformed service, apology
Employee Behaviour empathetic, friendly and informative interactional treatment of the customer throughout the recovery process	Credibility Attentiveness	Favourable Employee Behaviour “Interpersonal communication of the employee with the complainant, which is characterized by listening carefully to the complainant, displaying regret for any inconvenience, and helping the complainant to understand why a failure occurred.”	Favourable Employee Behaviour Excuse, justification, referential account, credibility feedback, promise, courtesy, effort, empathy, willingness to listen, appreciation
Promptness the extent to which the complaint is resolved quickly and easily	Timeliness Facilitation	Organisational Procedures “Policies, procedures, and structures a company has in place to provide a smooth complaint-handling process.”	Organizational Procedures Facilitation, initiation, customer participation, employee empowerment, flexibility, recovery time, follow-up, process recovery communication

Appendix 3.2 Proposed Typology of Service Recovery Tactics

Proposed typology	Definition	Representative Empirical Study
Utilitarian Recovery Tactics		
Immediate Monetary Compensation	Cash-back or discounts on the current purchase, which provide immediate value for the customer.	Roschk and Gelbrich (2014)
Delayed Monetary Compensation	Vouchers for future service consumption or store credit, which imply a delay between the receipt and use of the compensation	Roschk and Gelbrich (2014)
New/Replacement Goods	Provision or replacement of an object (e.g. replacing an appliance).	Roschk and Gelbrich (2014)
New/Reperformed Service	Performance or reperformance of an activity (e.g. re-cooking a meal).	Roschk and Gelbrich (2014)
Psychological Recovery tactics		
Apology	<i>“A message issued by the offender to the victim wherein the offender admits responsibility for the violation and for possible damages”</i> (Basso and Pizzutti, 2016, p.211). <i>“An admission of one’s fault combined with an expression of regret for having injured another as well as an expression of sympathy for the other’s injury”</i> (Cohen, 1999, p.1015).	Basso and Pizzutti (2016)
Excuse	Explanations “that invoke mitigating circumstances in order to absolve the service organization of responsibility for the adverse outcome” (Bradley and Sparks, 2012, p.41).	Bradley and Sparks (2012)
Justification	Explanations “that involve the admission of responsibility, but which legitimize the service organization’s actions on the basis of shared needs and/ or higher goals” (Bradley and Sparks, 2012, p.41).	Bradley and Sparks (2012)
Referential Account	Explanations “that seek to minimize the perceived unfavorability of the failure by invoking downward comparisons” with the experiences of other individuals (Bradley and Sparks, 2012, p.41).	Bradley and Sparks (2012)
Credibility Feedback	A message which conveys the actions taken by the firm to prevent the recurrence of failure. (Van Vaerenbergh et al., 2019, p.4)	Pugh et al. (2018)
Promise	An assertive message which illustrates the firm’s intended future behaviour and aims to reduce customers’ perception of the likelihood of future transgressions (Basso and Pizzutti, 2016, p.211).	Basso and Pizzutti (2016)
Courtesy	Attentive interactional treatment of customers (Davidow, 2003).	Blodgett et al. (1997)
Effort	The extent to which the service employee expends energy to achieve a service recovery for the customer (Huang et al., 2010).	Huang et al. (2010)
Empathy	The demonstration of warmth, acknowledgement of wrongdoing, or expression of remorse.	Roschk and Kaiser (2013)

Willingness to Listen	Providing the opportunity for customers to voice their complaints to the firm (Nguyen and McColl-Kennedy, 2003).	Nguyen and McColl-Kennedy (2003)
Appreciation	An acknowledgement of the customer's merits and contributions, in which the firm thanks the customer for their contribution to the encounter (You et al., 2020).	You et al. (2020)
Procedural Recovery Tactics		
Follow-up	The firm's procedures to assess whether the service failure has been resolved to the customer's satisfaction.	Mostafa et al. (2014)
Process Recovery Communication	"Communication with customers indicating what the organization has done to prevent the failure in the future" (Van Vaerenbergh et al., 2019, p. 4). This involves informing the customer of alterations to organisational processes.	Van Vaerenbergh et al. (2012)
Accessibility	The organisational procedures established to make it easy for the customers to lodge a complaint (Smith et al., 2009).	Sparks and McColl-Kennedy (1998)
Initiation	The firm proactively commences the service recovery process before the receipt of a customer complaint (Van Vaerenbergh et al., 2019).	Xu et al. (2014)
Flexibility	Taking "into account individual circumstances", as well as soliciting the customer's opinion concerning the appropriate service recovery outcome (Tax and Brown, 1998, p. 80).	del Río-Lanza et al. (2009)
Decentralisation	"the locus of authority or devolution of responsibilities for handling the recovery activities" (Smith et al., 2009, p. 168).	Boshoff and Leong (1998)
Adaptability	The extent to which the service provider can adjust their actions to respond to the demands of the service encounter (De Jong et al., 2004, p. 459).	De Jong et al. (2004)
Customer Participation in Service Recovery	The extent to which the firm involves the customer in the production and delivery of service recovery (Dong et al., 2008).	Dong (2008)
Process Recovery	The utilisation of complaint data or insights to drive process improvements, which reduce the frequency of failures (Michel et al., 2009).	Johnston and Michel (2008)
Timeliness	The speed of response to a complaint, or the time which elapses between the firm's receipt of a complaint and (i) the firm's handling of the complaint, or (ii) the customer's decision to end their pursuit of redress.	Hogreve et al. (2017)
Proactivity	The anticipation of potential service failures, as well as limiting the impact of service failure (Nazifi et al., 2021a, p. 207).	Nazifi et al. (2021a)

Notes: Extending and building on Van Vaerenbergh et al. (2019).

Appendix 3.3 Table of Studies of Overcompensation

Study	Context	Type of Overcompensation	Post-complaint Response	Findings
Gilly and Hansen (1985)	The customer is denied access to their hotel room, due to overbooking.	Vouchers for a free dinner and a free weekend stay, compared with a condition in which the customer receives a comparable stay at another hotel.	Perceived fairness Satisfaction with service recovery Repatronage intent WOM intent Third-party complaints	Overcompensation significantly and positively affects perceived fairness, satisfaction, repatronage intentions, the likelihood of the customer recommending the hotel to friends, and negatively affects the likelihood of the customer taking legal action against the firm. Both the low compensation and overcompensation conditions lead to an increase in the likelihood of talking to others about the experience, compared with the simple compensation (or equitable) condition. Third-party action is not a likely response to any compensation condition.
Boshoff (1997)	The customer misses a flight connection due to a flight delay.	Apology, refund of expenses and a ticket for a free flight, compared with a simple compensation condition of apology and refund of expenses.	Satisfaction with service recovery	Higher levels of compensation lead to statistically significant increases in service recovery satisfaction.
Estelami and de Meyer, 2000	A retail customer does not have enough money to pay a bill for food and drink items.	The employee enables the customer to pay \$10 for a bill of either \$16.87, \$10.50 or \$10.04.	Perceived ethical standards of the seller Transaction-specific satisfaction	Customer perceptions of the ethical standards of the seller and customer satisfaction are negatively affected by service provider generosity. These effects are reduced when the customer has a history of past transactions with the seller, and if the transaction involves the store owner, rather than an employee.
Hocutt et al. (2006)	A restaurant customer requests that mushrooms are omitted from their meal, because they are allergic to mushrooms. The	The restaurant states that the meal will be replaced, and that the customer will not be charged, compared with the offer of a replacement meal.	Satisfaction Customer perceptions of the likelihood of their engagement in NWOM	Increases in compensation lead to higher levels of satisfaction and lower levels of NWOM.

	restaurant serves a meal including mushrooms.			
Gelbrich and Roschk (2011b)	Meta-analysis of prior studies	Monetary compensation that exceeds the value of the loss instigated by service failure.	Overall postcomplaint satisfaction Transaction-specific satisfaction Cumulative satisfaction	The incremental effect of overcompensation on transaction-specific satisfaction and overall postcomplaint satisfaction is significantly smaller than that of simple compensation. When cumulative satisfaction is measured, the incremental effect of overcompensation is marginally smaller than the incremental effect of simple compensation.
Noone and Lee (2011)	The customer is denied access to their hotel room, due to overbooking.	Cash-based overcompensation and voucher-based overcompensation. Conditions include a complimentary night's stay at a different hotel, and an additional voucher or refund of 50%, 100% or 200% of the room price.	Satisfaction Repatronage intentions	Cash-based overcompensation significantly enhances satisfaction (compared to simple compensation) and does not exert a significant effect on repatronage intentions. Credit-based overcompensation does not significantly influence satisfaction or repatronage intentions.
Noone (2012)	The customer is denied access to their hotel room, due to overbooking.	Cash-based overcompensation and voucher-based overcompensation. Conditions include a complimentary night's stay at a different hotel, and an additional voucher or refund of 50%, 100% or 200% of the room price.	Justice perceptions NWOM intentions	Cash-based overcompensation significantly enhances perceived distributive justice, while voucher-based overcompensation does not exert a significant effect compared with the simple compensation condition. Cash-based overcompensation significantly decreases NWOM intent, while voucher-based overcompensation does not exert a significant effect compared with the simple compensation condition. The relationship between compensation and NWOM is fully mediated by perceived distributive justice.
Gelbrich et al. (2015)	Three scenarios, including: an unpleasant theatre trip in which the customer experiences uncomfortable	Vouchers for future service consumption. 11 values between 0-200% of the purchase price.	Expected compensation Satisfaction Repatronage intent	When the failure results in customers' rejection of the service experience, customers possess clear reference levels for the financial value of the compensation they should receive. Therefore, following service rejection, customers' compensation-satisfaction curve is steepest between 80-120% compensation, with

	seating, a dirty hotel room and a faulty jumper			diminishing marginal returns beyond 100%. Service acceptance implies that the curve is steepest at the lowest amounts of compensation.
Crisafulli and Singh (2016)	Customer pays for a quick parcel delivery service and the parcel does not arrive on time.	The high pay-out condition includes the payment of a refund, which is specified in the guarantee, and an additional 20% discount (extra compensation).	Inferred motives Perceived distributive justice Repatronage intentions	Overcompensation improves inferred motives, distributive justice perceptions, and repatronage intentions. However, the impact of overcompensation does not exceed that of simple compensation.
Gelbrich et al. (2016)	A dirty hotel room	Credit which can be used for the current stay or future stays. 11 values between 0-200% of the purchase price are investigated.	Perceived reciprocity Overall satisfaction (with the experience)	The compensation-satisfaction curve is less concave for high relationship quality customers. The effect of the interaction between relationship quality and compensation on satisfaction is mediated by perceived reciprocity.
Haesevoets et al. (2017)	Broken products (e.g. vacuum cleaner, digital camera)	Study 1: 100%, 150%, 200% and 300% Study 2: 21 equally spaced groups between 100% and 200% Study 3: 100%, 125%, 150%, 175%, 200%, 225% and 250% Study 4: 8 equally spaced groups between 100% and 170%	Customer loyalty Repurchase intentions	The optimum level of compensation appears to lie between 140% and 168% for multiple different types of products. Very extreme levels of compensation could even lead to a decrease in customer loyalty as a significant decrease in loyalty was observed when 250% compensation was compared with 175% compensation.
Haesevoets et al. (2019)	Television malfunction	100% of the purchase price and 500% compensation	Customer loyalty	Customer loyalty does not vary significantly with the level of compensation. Customers with low levels of perpetrator fairness sensitivity or high levels of victim fairness sensitivity are more sensitive to overcompensation.
Nazifi et al. (2021a)	Customers are offloaded by airlines.	Simple compensation is considered as the legal requirement for airline offloading. Study 2a: 50%, 100%, 200% and 700% Study 2b: 5 groups from 0 to 50% Study 3a: 5% and 10% Study 3b: 50% and 100% Study 3c: 100%, 200% and 400%	Negative eWOM Complaint intentions	Customers' responsiveness to compensation changes depending on the proactivity of the recovery and whether the customer volunteers to experience the failure.

Appendix 6.1 PILOT STUDY 2, STUDY 1 & STUDY 2: Double Deviation Scenarios

<p>Pilot Study 2 and Study 1</p>	
<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that you are a customer who experiences the following events: You pre-booked a £100 room in a hotel for a one-night getaway. You arrive at the front desk of the hotel at approximately 2 pm to check in. During the booking process, the hotel informed you that the check-in time is 1 pm. However, the hotel employee at the front desk tells you that the room is not ready. You will have to wait until 5 pm to enter your room.</p>	
<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that the service experience continues and that the following events occur: You decide to complain to the hotel employee and ask him to fix the problem. The hotel employee explains that he is unable to fix the problem, because the hotel is fully booked for the night. The employee tells you that your reservation was not recorded, because when you called the hotel to make your reservation, a trainee answered the phone and made a mistake during the booking process. You are directed to the waiting area, where you sit and wait for the room.</p>	
<p>Study 2</p>	
<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that you are a customer who experiences the following events: You pre-booked a £100 room at a hotel for a one-night getaway. You arrive at the front desk of the hotel at approximately 2 pm to check in. During the booking process, the hotel informed you that the check-in time is 1 pm. However, the hotel employee at the front desk tells you that the room is not ready. You will have to wait until 5 pm to enter your room. You decide to complain to the hotel</p>	<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that you are a customer who experiences the following events: You pre-booked a £100 room at a hotel for a one-night getaway. You arrive at the front desk of the hotel at approximately 2 pm to check in. During the booking process, the hotel informed you that the check-in time is 1 pm. However, the hotel employee at the front desk tells you that the room is not ready. You will have to wait until 5 pm to enter your room. You decide to complain to the hotel</p>

employee and ask him to fix the problem. The employee tells you that your reservation was not recorded, because when you called the hotel to make your reservation, a trainee answered the phone and made a mistake during the booking process. **The service employee looks motivated to help you to solve the problem.** The employee searches for another room and is clearly trying to help. They search their computer for a long time, looking up different options. After a short while, they tell you that they are unable to fix the problem, because the hotel is fully booked for the night. You are directed to the waiting area, where you sit and wait for the room.

employee and ask him to fix the problem. The employee tells you that your reservation was not recorded, because when you called the hotel to make your reservation, a trainee answered the phone and made a mistake during the booking process. **The service employee looks unmotivated to help you to solve the problem.** They are reluctant to search for a different room for you, so they briefly look at their computer for a few seconds. After a short while, they tell you that they are unable to fix the problem, because the hotel is fully booked for the night. You are directed to the waiting area, where you sit and wait for the room.

Appendix 6.2 PILOT STUDY 2, STUDY 1 AND STUDY 2: Service Recovery Scenarios

<p>Pilot Study 2</p>
<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, looking unconcerned, saying: “The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you.” The manager gives you a voucher to spend on a future stay at the hotel, which is worth £\${Q9/ChoiceTextEntryValue}.</p>
<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, looking a little concerned, saying: “The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you. I understand how disappointed you must feel and I feel bad about it.” The manager gives you a voucher to spend on a future stay at the hotel, which is worth £\${Q9/ChoiceTextEntryValue}.</p>
<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, looking quite concerned, saying: “The room cannot be made available any sooner. I am really sorry that the booking failed today and that my colleague could not resolve this for you. I can imagine how frustrating it must have been to find that you could not enter your room and could not move to a different room. I understand how disappointed you must feel and I feel very bad about it.” The manager gives you a voucher to spend on a future stay at the hotel, which is worth £\${Q9/ChoiceTextEntryValue}.</p>
<p>***YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY*** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, looking unconcerned, saying: “The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you.”</p>

The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £\${Q9/ChoiceTextEntryValue} and an extra £50 voucher.

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, **looking a little concerned**, saying: "The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you. I understand how disappointed you must feel and I feel bad about it." The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £\${Q9/ChoiceTextEntryValue} and an extra £50 voucher.

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, **looking quite concerned**, saying: "The room cannot be made available any sooner. I am really sorry that the booking failed today and that my colleague could not resolve this for you. I can imagine how frustrating it must have been to find that you could not enter your room and could not move to a different room. I understand how disappointed you must feel and I feel very bad about it". The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £\${Q9/ChoiceTextEntryValue} and an extra £50 voucher.

Study 1

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, **looking unconcerned**, saying: "The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you." The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £57.

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, **looking a little concerned**, saying: "The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you. I understand how disappointed you must feel and I feel bad about it." The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £57.

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, **looking unconcerned**, saying: "The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you." The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £107.

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, **looking a little concerned**, saying: "The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you. I understand how disappointed you must feel and I feel bad about it." The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £107.

Study 2

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager responds, **looking unconcerned**, saying: "The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you." The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £57.

*****YOU MUST READ ALL THE INFORMATION ON THIS PAGE TO COMPLETE THE STUDY***** Please imagine that the service experience continues and that the following events occur: Next, you return to the front desk and ask to speak to the manager. The employee complies with your request. The manager

responds, **looking a little concerned**, saying: “The room cannot be made available any sooner. I am sorry that the booking failed today and that my colleague could not resolve this for you. I understand how disappointed you must feel and I feel bad about it.” The manager gives you a **voucher** to spend on a future stay at the hotel, which is worth £57.

Notes: Javascript “\${Q9/ChoiceTextEntryValue}” ensured that the participant viewed the amount of money they specified when asked to state the appropriate amount of compensation.

Appendix 6.3 PILOT STUDY 1 AND STUDY 3: Core Scenarios and Debriefing

Pilot Study 1	Study 3														
<p>Pre-Failure Manipulation:</p> <p>Thank you for agreeing to participate in a trial online shopping experience with one of our affiliated brands. This study can be completed with one of two competing brands, Richard Smith Wines or Stewart Jones' Cellar. Stewart Jones' Cellar and Richard Smith Wines are frequently described as fierce market rivals. The brands want to understand customers' product preferences. Imagine that you are going to shop for wine online. You are going to see a list of wine prices for two brands of online wine retailers, Richard Smith Wines and Stewart Jones' Cellar. The names of the wine bottles will be hidden and the wine products offered by Richard Smith Wines and Stewart Jones' Cellar are <i>identical</i>. Please read the price lists in the tables.</p> <p>Wine list Stewart Jones' Cellar Price list</p> <table> <tr><td>Wine A</td><td>£17.95</td></tr> <tr><td>Wine B</td><td>£24.95</td></tr> <tr><td>Wine C</td><td>£23.95</td></tr> <tr><td>Wine D</td><td>£16.95</td></tr> <tr><td>Wine E</td><td>£25.95</td></tr> </table> <p>Wine list Richard Smith Wines Price list</p> <table> <tr><td>Wine A</td><td>£17.95</td></tr> <tr><td>Wine B</td><td>£14.95</td></tr> </table>	Wine A	£17.95	Wine B	£24.95	Wine C	£23.95	Wine D	£16.95	Wine E	£25.95	Wine A	£17.95	Wine B	£14.95	<p>Pre-Failure Manipulation:</p> <p>Thank you for agreeing to participate in a trial online shopping experience with one of our affiliated brands. This study can be completed with one of two competing brands, Richard Smith Wines or Stewart Jones' Cellar. Stewart Jones' Cellar and Richard Smith Wines are frequently described as fierce market rivals. The brands want to understand customers' product preferences. You are going to see a list of wine prices for each of the two wine retailers. The researchers have a fixed budget to buy a set of wine bottles from each brand. You are going to enter into a prize draw for a wine bottle from one of the two brands. The names of the wine bottles will be hidden and the wine products offered by Richard Smith Wines and Stewart Jones' Cellar are identical. Once you have chosen your preferred wine seller, you will be able to view a selection of prize draws for different wine bottles from the seller and choose the prize draw for which you wish to be entered. Please carefully read the price lists in the tables.</p> <p>*Tables identical to those used in the pilot study 1*</p>
Wine A	£17.95														
Wine B	£24.95														
Wine C	£23.95														
Wine D	£16.95														
Wine E	£25.95														
Wine A	£17.95														
Wine B	£14.95														

<p>Wine C £23.95 Wine D £16.95 Wine E £22.95</p> <p>Imagine that the research team have a fixed budget to purchase a set of prizes from each retailer.</p> <p>Now imagine that depending on the retailer you choose, you will be entered into a prize-draw for a product from either store. Please select the online store you would prefer to visit, by selecting one of the statements below.</p> <p>I would prefer to visit Stewart Jones' Cellar / Richard Smith Wines.</p>	<p>Remember to imagine that the research team have a fixed budget to purchase a set of prizes from each retailer.</p> <p>Please select the online store from which you would prefer to receive a prize, by selecting one of the statements below. I would prefer to visit Stewart Jones' Cellar/ Richard Smith Wines.</p>
<p>Please look at the screenshot of the online shop, which displays three products. LOOK AT THE PRODUCTS and decide which you would be most interested in receiving. *YOU MUST LOOK AT THE SCREENSHOT AND THE PRODUCTS TO COMPLETE THIS STUDY*</p>	<p>Please look at the screenshot of the Richard Smith Wines online shop, which displays three products. LOOK AT THE PRODUCTS and decide which you would be most interested in receiving. *YOU MUST LOOK AT THE SCREENSHOT AND THE PRODUCTS TO COMPLETE THIS STUDY*</p> <p>Please be aware that a Richard Smith Wines' employee will be available to assist with any technical issues during the study. Please click on the prize you would be most interested in receiving. A/B/C</p> <p>*PLEASE REMEMBER THAT YOU WILL BE ENTERED INTO A PRIZE DRAW FOR THIS PRODUCT*</p>



Bourgogne Rouge by Rectoriebelle
£29.95



Âme Sauvage by Maison Jean-Claud Piette
£29.95



Rêve by Chateaux de Senot-Basset
£29.95

screenshot identical to the screenshot used in the pilot study 1

Service Failure Manipulation:

Imagine that you are informed that this item is **out-of-stock**, as more participants than expected selected this choice. You receive a message which is as follows "Sorry! A Richard Smith Wines' employee is developing a solution to this problem...". **Please click 'Next' to continue the survey. The solution provided by Richard Smith Wines will be displayed later in the survey.**

Service Failure Manipulation:

This item is **out-of-stock**, as more participants than expected selected this choice. Sorry! A Richard Smith Wines' employee is developing a solution to this problem... **Please click the 'Next' arrow to continue.**

Double Deviation Manipulation:

Imagine that you are informed that you will be entered into a prize draw for **Prize D** instead. Prize D is a different bottle of red wine called **Chapelle Claude-Senot**, which costs **£6.99**.

Double Deviation Manipulation:

A Richard Smith Wines's employee has entered you into a prize draw for **Prize D** instead. Prize D is a different bottle of red wine called **Chapelle Claude-Senot**, which costs **£6.99**.

Closing Message:

Thank you for your participation. The researchers were interested to understand how you would respond to different types of apologies from service providers. Therefore, all of the brands, products and prizes included in the study were fictional.

Closing Message:

Thank you for your participation. In addition to understanding your preferred wine products, the researchers were also interested to understand how you respond to different types of apologies from service providers. Therefore, all of the brands, products and prizes included in the study were fictional. **You will not be entered into a prize draw for £50 worth of wine vouchers.** Instead, you can be entered into a prize draw for a **£50 cash prize**. Would you like to opt into the prize draw?

Yes, I wish to opt into the prize draw/
No, I do not wish to opt into the prize draw

Appendix 6.4 PILOT STUDY 1 AND STUDY 3: Service Recovery Scenarios

Pilot Study 1	Study 3
<p>Please imagine that you receive the following message from Richard Smith Wines: Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. Sorry! Instead, I have entered you into the prize draw for another study run by Richard Smith Wines. The prize is £\${Q124/ChoiceGroup/AllChoicesTextEntry} to spend at Richard Smith Wines, which you could use to purchase your original choice when it is back in stock. If you win, the voucher will be sent to your e-mail after the study.</p>	<p>Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. I am sorry that your preferred prize was unavailable and that the alternative prize did not resolve the problem.</p>
<p>Please imagine that you receive the following message from Richard Smith Wines: Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. I am sorry that your preferred prize was unavailable and that the alternative prize did not resolve the problem. Instead, I have entered you into the prize draw for another study run by Richard Smith Wines. The prize is £\${Q124/ChoiceGroup/AllChoicesTextEntry} to spend at Richard Smith Wines, which you could use to purchase your original choice when it is back in stock. If you win, the voucher will be sent to your e-mail after the study.</p>	<p>Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. I am sorry that your preferred prize was unavailable and that the alternative prize did not resolve the problem. Instead, I have entered you into the prize draw for another study run by Richard Smith Wines. The prize is £29 to spend at Richard Smith Wines, which you could use to purchase your original choice when it is back in stock. If you win, the voucher will be sent to your e-mail after the study.</p>
<p>Please imagine that you receive the following message from Richard Smith Wines: Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. I am sorry that your preferred prize was unavailable and that the alternative prize did not resolve the problem. I understand how disappointed you must feel and I feel bad about it. Instead, I have entered you into the prize draw for another study run by Richard Smith Wines. The prize is £\${Q124/ChoiceGroup/AllChoicesTextEntry} to spend</p>	<p>Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. I am sorry that your preferred prize was unavailable and that the alternative prize did not resolve the problem. I understand how disappointed you must feel and I feel bad about it.</p>

<p>at Richard Smith Wines, which you could use to purchase your original choice when it is back in stock. If you win, the voucher will be sent to your e-mail after the study.</p>	
<p>Please imagine that you receive the following message from Richard Smith Wines: Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. I am really sorry that your preferred prize was unavailable and that the alternative prize did not resolve the problem. I can imagine how frustrating it must have been to find that your preferred product was not available and the replacement prize did not meet your expectations. I understand how disappointed you must feel and I feel really bad about it. Instead, I have entered you into the prize draw for another study run by Richard Smith Wines. The prize is £\${Q124/ChoiceGroup/AllChoicesTextEntry} to spend at Richard Smith Wines, which you could use to purchase your original choice when it is back in stock. If you win, the voucher will be sent to your e-mail after the study.</p>	<p>Hi, I'm a Richard Smith Wines employee. I notice that you are not happy with the replacement prize offered. I am sorry that your preferred prize was unavailable and that the alternative prize did not resolve the problem. I understand how disappointed you must feel and I feel bad about it. Instead, I have entered you into the prize draw for another study run by Richard Smith Wines. The prize is £29 to spend at Richard Smith Wines, which you could use to purchase your original choice when it is back in stock. If you win, the voucher will be sent to your e-mail after the study.</p>

Notes: Javascript “\${Q9/ChoiceTextEntryValue}” ensured that the participant viewed the amount of money they specified when asked to state the appropriate amount of compensation.

Appendix 6.5 PILOT STUDY 1 AND STUDY 3: Table of Measures

Variable	Measure	Adapted From	Pilot Study 1	Study 3
Age	Please select the category containing your age. 18-24, 25-29, 30-39, 40-49, over 49, prefer not to say		Yes	Yes
Gender	What is your primary gender identity today? Male, Female, Part time as one gender, part time as another, A gender not listed here, please specify, Prefer not to say	Harrison, Grant and Herman (2012)	Yes	Yes
Monthly Income	What is the monthly income of your household? £0–499, £500–999, £1,000–1,999, £2,000–2,999, £3,000–3,999, £4,000–4,999, £5000 or more, Prefer not to say.	Gelbrich, Gätke and Grégoire (2015)	Yes	Yes
Experience of Online Wine Shopping	Have you bought wine online before? Yes/No		Yes	Yes
Frequency of Past Online Wine Purchases	How often did you buy wine online in the past two years? Never, on 1-2 occasions, on 3-4 occasions, on 5-10 occasions, on more than 10 occasions	Gelbrich, Gätke and Grégoire (2015)	Yes	Yes
Perceived Brand Equity of SJC	What kind of attitude do you have about SJC? (1=Negative Attitude, 7=Positive Attitude) What kind of image does SJC have? (1=Negative Image, 7=Positive Image) How would you rate your perception of the quality delivered by SJC? (1=Low Quality, 7=High Quality) Would you be willing to pay more for SJW? (1=Definitely Not, 7=Definitely)	Brady, Cronin, Fox and Roehm (2008)	No	No

	How loyal do you intend to be to SJC? (1= not at all loyal, 7= very loyal)			
Perceived Brand Equity of RSW	<p>What kind of attitude do you have about RSW? (1=Negative Attitude, 7=Positive Attitude)</p> <p>What kind of image does RSW have? (1=Negative Image, 7=Positive Image)</p> <p>How would you rate your perception of the quality delivered by RSW? (1=Low Quality, 7=High Quality)</p> <p>Would you be willing to pay more for RSW? (1=Definitely Not, 7=Definitely)</p> <p>How loyal do you intend to be to RSW? (1= not at all loyal, 7= very loyal)</p>	Brady, Cronin, Fox and Roehm (2008)	No	No
Brand Preference	<p>Please imagine that you have a fixed budget and are going to purchase wine from one of the retailers. Select the online store you would prefer to visit, by selecting one of the statements below.</p> <p>I would prefer to visit Bottle UK/ Cellar UK.</p>		Yes	Yes
Prize Choice	Please click on the prize you would be most interested in receiving and then answer the next question.		Yes	Yes
Language-Based Attention Check	What language appears on the labels of the prize wine bottles? English/French		Yes	Yes
Reminder of Prize Value	<p>Please select the statement below that matches the product you chose. <i>Tip: You clicked on the picture of a wine bottle in the screenshot, select the statement that matches the product you selected.</i></p> <p><input type="radio"/> I indicated that I would prefer to be entered into a prize draw for Prize A (Bourgogne Rouge: £29.95).</p> <p><input type="radio"/> I indicated that I would prefer to be entered into a prize draw for Prize B (Âme Sauvage: £29.95).</p> <p><input type="radio"/> I indicated that I would prefer to be entered into a prize draw for Prize C (Rêve: £29.95).</p>		Yes	Yes

Prime for Double Deviation	Why did you choose Prize *insert prize name*?		Yes	Yes
Post-Failure Transaction-Specific Dissatisfaction	After what has happened, I would feel... Dissatisfied Displeased Discontented	Grégoire and Fisher (2006)	Yes	No
Post-Double Deviation Transaction-Specific Dissatisfaction	After what has happened, I would feel... Dissatisfied Displeased Discontented	Grégoire and Fisher (2006)	Yes	No
Service Failure Severity	The offer of a replacement prize caused me... ... a minor problem (1). — ... a major problem (7). ... a small inconvenience (1). — ... a big inconvenience (7). ... minor aggravation (1). — ... major aggravation (7).	Joireman, Grégoire, Devezer, and Tripp (2013)	Yes	No
Blame Attribution	Overall, RSW was “not at all” (1) - “totally” (7) responsible for the provision of a replacement prize. The provision of an inadequate replacement prize was in “no way” (1) - “completely” (7) RSW’s fault. To what extent do you blame RSW for what happened? Not at all (1) – completely (7).	Joireman, Grégoire, Devezer, and Tripp (2013)	Yes	No
Satisfaction With Service Recovery	I would be (am) very satisfied with RSW’s response. (1-strongly agree-11- strongly disagree) In my opinion, RSW provided a satisfactory resolution to the problem on this particular occasion. (1-11) Regarding this particular event, I am satisfied with RSW’s response to the problem. (1-11)	Gelbrich, Gätke and Grégoire (2015)	Yes	No
Distributive Justice	Overall, the outcomes I received from RSW were fair. Given the time, money and hassle, I got fair outcomes. I got what I deserved.	Grégoire, Laufer and Tripp (2010)	Yes	No

Recall Task	Please try to recall as much as you can about the service experience.	Bonifield and Cole (2008)	Yes	Yes
Perceived Empathy of the Post-Double Deviation Apology	The apology included... ...an expression of concern for my inconvenience. ...a show of empathy toward me. ...an indication that the RSW employee cares about how I feel. ...sympathy for me.	Fehr and Gelfand (2010)	Yes	Yes
Compensation Manipulation Check	Does the message presented above state that you will be entered into another prize draw for vouchers? *If you are unsure please re-read the text above* Yes/No		No	Yes
Post-Double Deviation Desire For Revenge	After what has happened, indicate the extent to which you would want to... ... take actions to get RSW in trouble. (R1) ... punish RSW in some way. (R1) ... cause inconvenience to RSW. (R1) ... get even with RSW. (R1) ... make RSW get what it deserved. (R1)	Grégoire, Laufer and Tripp (2010)	Yes	Yes
Post-Double Deviation Desire For Avoidance	I want to avoid frequenting RSW. (1= strongly disagree, 7= strongly agree) (AV1) I want to cut off my relationship with RSW. (AV2) I want to withdraw my business from RSW. (AV3)	Grégoire, Laufer and Tripp (2009)	Yes	No
Realism/ Believability Check	I believe that such incidents are likely to happen in real life. I think the description of the situation is realistic. I was able to adopt the role of the customer. As a portrayal of a hotel visit, this scenario is believable.	Gelbrich, Gätke and Grégoire (2015)	Yes	No
Attention Check	This is a quality check. Please do not select a number from the dropdown list for this statement.	Paas and Morren (2018)	Yes	Yes

Post-Service Recovery From Double Deviation Anger	After what has happened, I would feel... Outraged (A1) Resentful (A2) Indignation (A3) Angry (A4)	Grégoire, Laufer and Tripp (2010)	No	Yes
Post-Double Deviation Helplessness	After what has happened, I would feel... Helpless (H1) Lost (H2) Defenceless (H3) Stranded (H4)	Gelbrich (2010)	No	Yes
Switch to a More Expensive Alternative	You will be entered into another prize-draw for a chance to receive a £20 voucher from the research team to purchase a gift from Richard Smith Wines or Stewart Jones' Cellar. Please note that if you win, this voucher will be sent to your e-mail two weeks from today. Please be aware that by this time all items will have been re-stocked and will be available for you to purchase. You may choose whether you receive a gift from Richard Smith Wines or Stewart Jones' Cellar. The research team will then purchase a voucher from the relevant store for your use. Please select the online store for which you wish to obtain a £20 voucher. You do not have to return to the same store. I would like to receive a voucher for Richard Smith Wines'/ Stewart Jones' Cellar's online store.	Bechwati and Morrin (2003)	No	Yes
Knowledge of study purpose check	What do you believe to be the purpose of this study?	Kellaris and Cox (1989)	Yes	Yes

Notes: Where anchors are not provided, the items are anchored at 1= strongly disagree, 7= strongly agree. The columns entitled 'Pilot study 1' and 'Study 3' indicate whether the measure is included in each study.

Appendix 6.6 PILOT STUDY 2, STUDY 1 AND STUDY 2: Table of Measures

Variable	Measure	Adapted From	Pilot Study 2	Study 1	Study 2
Age	Please select the category containing your age. 18-24, 25-29, 30-39, 40-49, over 49, prefer not to say	Lee, Mjelde, Kim and Lee (2014); Van Gils and Horton (2019); Islam, Dias and Huda (2020)	Yes	Yes	Yes
Gender	What is your primary gender identity today? Male, Female, Part time as one gender, part time as another, A gender not listed here, please specify, Prefer not to say	Harrison, Grant and Herman (2012)	Yes	Yes	Yes
Monthly Income	What is the monthly income of your household? £0–499, £500–999, £1,000–1,999, £2,000–2,999, £3,000–3,999, £4,000–4,999, £5000 or more, Prefer not to say.	Gelbrich, Gäthke and Grégoire (2015)	Yes	Yes	Yes
Experience of Hotel Trips	Have you bought a hotel trip before? Yes/no		Yes	Yes	Yes
Frequency of Past Hotel Trip Purchases	How many times have you bought hotel trips in the past 5 years?	Gelbrich, Gäthke and Grégoire (2015)	Yes	Yes	Yes
Post-Failure Transaction-Specific Dissatisfaction	After what has happened, I would feel... Dissatisfied Displeased Discontented	Grégoire and Fisher (2006)	Yes	Yes	No
Post-Double Deviation Transaction-Specific Dissatisfaction	After what has happened, I would feel... Dissatisfied Displeased Discontented	Grégoire and Fisher (2006)	Yes	Yes	No

Service Failure Severity	Overall, the unavailability of the room until 5 pm and the hotel employee's response caused me... ... a minor problem (1). — ... a major problem (7). (S1) ... a small inconvenience (1). — ... a big inconvenience (7). (S2) ... minor aggravation (1). — ... major aggravation (7). (S3)	Joireman, Grégoire, Devezer, and Tripp (2013)	Yes	Yes	Yes
Blame Attribution	Overall, the hotel was “not at all” (1) - “totally” (7) responsible for the failure. (B1) The service failure was in “no way” (1) - “completely” (7) the hotel’s fault. (B2) To what extent do you blame the hotel for what happened? Not at all (1) – completely (7). (B3)	Joireman, Grégoire, Devezer, and Tripp (2013)	Yes	Yes	Yes
Stability Attribution	This type of service failure (i.e. the unavailability of the room until 5 pm) is a common problem for this hotel. (1= strongly disagree, 7= strongly agree) (St)	Grewal, Roggeveen and Tsiros (2008)	Yes	Yes	No
Realism/ Believability Check	I believe that such incidents are likely to happen in real life. I think the description of the situation is realistic. I was able to adopt the role of the customer. As a portrayal of a hotel visit, this scenario is believable.	Gelbrich, Gäthke and Grégoire (2015)	Yes	Yes	Yes
Recall Task	Please try to recall as much as you can about the service experience.	Bonifield and Cole (2008)	Yes	Yes	Yes
Knowledge of Study Purpose Check	What do you believe to be the purpose of this study?	Kellaris and Cox (1989)	Yes	Yes	Yes
Attention Check	This is a quality check. Please do not select a number from the dropdown list for this statement.	Paas and Morren (2018)	Yes	Yes	Yes
Perceived Empathy of the Post-Double Deviation Apology	The apology included... ... an expression of concern for my inconvenience. ... a show of empathy toward me. ... an indication that the manager cares about how I feel. ... sympathy for me	Fehr and Gelfand (2010)	Yes	Yes	Yes

Monetary Compensation Manipulation Check	Overall, how much compensation did you receive? I received £----- worth of vouchers. *If you are unsure please re-read the text above*	Gelbrich et al. (2015)	Yes	Yes	No
Inferred Selfish Intentions of the Firm During Service Failure	When the hotel first failed to provide a room... ... the hotel was concerned with its own welfare. (SF1) ... the hotel was looking out for its best interests. (SF2) ... the hotel's actions were conducted because the hotel expected to gain something at my expense. (SF3)	Bock, Folse and Black (2016)	No	No	Yes
Post-Service Recovery from Double Deviation Revenge Desires	After what has happened, indicate the extent to which you would want to... ... take actions to get the hotel in trouble. (R1) ... punish the hotel in some way. (R2) ... cause inconvenience to the hotel. (R3) ... get even with the hotel. (R4) ... make the hotel get what it deserved. (R5)	Grégoire, Laufer and Tripp (2010)	Yes	Yes	Yes
Intensity of Apology	How many times did the manager use the word 'sorry'? Never/ once/ twice/ three times/ four times or more	Roschk and Kaiser (2013)	No	Yes	No
Post-Service Recovery from Double Deviation Anger	After what has happened, I would feel... Outraged (A1) Resentful (A2) Indignation (A3) Angry (A4)	Grégoire, Laufer and Tripp (2010)	No	Yes	Yes
Inferred Selfish Intentions During Service Recovery from Double Deviation	Concerning the monetary compensation and apology provided... ... the manager was concerned with his own welfare. (SR1) ... the manager was looking out for his best interests. (SR2) ... the manager's actions were conducted because the manager expected something from me in return. (SR3)	Bock, Folse and Black (2016)	No	No	Yes
Inferred Benevolent	Concerning the monetary compensation and apology provided...	Bock, Folse and Black (2016)	No	No	Yes

Intentions During Service Recovery from Double Deviation	... the manager was concerned with my welfare. (1=strongly agree, 7=strongly disagree) (R) (BR1) ... the manager's concern was genuine. (BR2) ... the manager was looking out for my best interests. (BR3)				
Manipulative Intentions During Service Recovery from Double Deviation	Concerning the monetary compensation and apology provided... ... the way the manager tried to influence me seems acceptable to me. (M1) (R) ... the manager tried to manipulate me in ways that I don't like. (M2) ... I would be annoyed by the manager, because they tried to control me inappropriately. (M3) ... the manager was not excessively manipulative. (M4) (R)	Antonetti, Crisafulli and Maklan (2018)	No	Yes	No
Intentionality of Service Failure	The service failure (i.e. the unavailability of the room until 5 pm and the hotel employee's response) was entirely involuntary. (I1) There was certain intentionality in the service failure. (I2) They did not really try to satisfy my expectations. (I3)	Varela-Neira, C., Vázquez-Casielles, R., & Iglesias, V. (2014).	No	No	Yes

Notes: (R) indicates that the variable is reverse coded. Where anchors are not provided, the items are anchored at 1= strongly disagree, 7= strongly agree. The columns entitled 'Pilot study 2', 'Study 1' and 'Study 2' indicate whether the measure is included in each study.

Appendix 6.7 PILOT STUDY 1: Table of Reliability Statistics for Realism Measure

Perceived Realism Cronbach's Alpha= .85; CR= .82; AVE= .65	Mean	Standard Deviation	Loading Value
I believe that such incidents are likely to happen in real life.	5.54	1.27	.77
I think the description of the situation is realistic.	5.52	1.32	.84
I was able to adopt the role of the customer	*item removed*		
As a portrayal of a prize draw experience, this scenario is believable	5.37	1.40	.81

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. The third item was removed as it had a factor loading value of .46, which is less than the .7 cut-off (Hair et al., 2021).

Appendix 6.8 PILOT STUDY 1: Table of Reliability Statistics for Perceived Empathy of Apology Measure

Perceived Empathy of Apology: Cronbach's Alpha= .93; CR= .95; AVE= .77	Mean	Standard Deviation	Loading Value
The apology included... ...an expression of concern for my inconvenience.	5.41	1.49	.85
...a show of empathy toward me.	5.32	1.53	.85
...an indication that the RSW employee cares about how I feel.	5.1	1.55	.87
...sympathy for me.	5.28	1.56	.94

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. The fourth item appeared to be unusually high, as loadings of over .9 in EFA can indicate the redundancy of items (Field, 2013).

Appendix 6.9 PILOT STUDY 2: Table of Reliability Statistics for Realism Measure

Perceived Realism Cronbach's Alpha= .78; CR= .78; AVE= .64	Mean	Standard Deviation	Loading Value
I believe that such incidents are likely to happen in real life.	*item removed*		
I think the description of the situation is realistic.	5.15	1.10	.80
I was able to adopt the role of the customer	*item removed*		
As a portrayal of a prize draw experience, this scenario is believable	5.12	1.03	.80

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. The first and third items were removed as they had factor loading values of .56 and .36, respectively, which are less than the .7 cut-off (Hair et al., 2021).

Appendix 6.10 PILOT STUDY 2: Table of Reliability Statistics for Perceived Empathy of Apology Measure

Perceived Empathy of Apology Cronbach's Alpha= .96; CR= .96; AVE= 86.	Mean	Standard Deviation	Loading Value
The apology included... ...an expression of concern for my inconvenience.	5.11	1.73	.88
...a show of empathy toward me.	4.83	1.81	.94
...an indication that the RSW employee cares about how I feel.	4.88	1.81	.96
...sympathy for me.	4.75	1.76	.93

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. The second, third and fourth items appeared to be unusually high, as loadings of over .9 in EFA can indicate the redundancy of items (Field, 2013).

Appendix 6.11 STUDY 1: Reliability Statistics for Realism Measure

Perceived Realism Cronbach's Alpha= .84; CR= .85; AVE= .66	Mean	Standard Deviation	Loading Value
I believe that such incidents are likely to happen in real life.	5.97	1.18	.73
I think the description of the situation is realistic.	5.98	1.11	.85
I was able to adopt the role of the customer	*Item removed*		
As a portrayal of a prize draw experience, this scenario is believable	5.88	1.20	.82

Notes: This scale was analysed separately from the model variables. The third item was removed as it had the lowest loading value of all the items (.41).

Appendix 6.12 STUDY 1: Table of Reliability Statistics for Perceived Empathy of Apology Measure

Perceived Empathy of Apology Cronbach's alpha= .93; CR= .93; AVE= .82	Mean	Standard Deviation	Loading Value
The apology included... ...an expression of concern for my inconvenience.	4.03	1.77	.88
...a show of empathy toward me.	*item removed*		
...an indication that the RSW employee cares about how I feel.	3.78	1.78	.92
...sympathy for me.	3.70	1.74	.92

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. When all items were included the Cronbach's alpha value was extremely high (.95), indicating that one or more items could be redundant. The empathy item was selected for removal as it had an extremely high loading value in Pilot Study 2 and Study 1 (Field, 2013). No further items were removed as this would have affected the content validity of the measure.

Appendix 6.13 STUDY 2: Reliability Statistics for Realism Measure

Perceived Realism Cronbach's Alpha= .89; CR= .89; AVE= .73	Mean	Standard Deviation	Loading Value
I believe that such incidents are likely to happen in real life.	6.08	1.07	.85
I think the description of the situation is realistic.	5.98	1.14	.86
I was able to adopt the role of the customer.	*item removed*		
As a portrayal of a prize draw experience, this scenario is believable.	5.98	1.16	.86

Notes: This scale was analysed separately from the model variables. The third item was removed as it had the lowest loading value of all the items (.46).

Appendix 6.14 STUDY 2: Table of Reliability Statistics for Perceived Empathy of Apology Measure

Perceived Empathy of Apology Cronbach's Alpha= .93; CR= .93; AVE= .81	Mean	Standard Deviation	Loading Value
The apology included... ...an expression of concern for my inconvenience.	4.11	1.98	.86
...a show of empathy toward me.	*item removed*		
...an indication that the RSW employee cares about how I feel.	4.01	1.87	.92
...sympathy for me.	3.87	1.89	.92

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. The results of Pilot Study 2 and Study 1 indicated that the second item was redundant in the hotel context. Therefore, the second item was not included in Study 2.

Appendix 6.15 STUDY 2: Table of Reliability Statistics for Failure Intentionality

Measure

Perceived Intentionality of Failure Cronbach's Alpha= .60; CR= .60; AVE= .43	Mean	Standard Deviation	Loading Value
The service failure (i.e. the unavailability of the room until 5pm and the hotel employee's response) was entirely involuntary (R; 1=strongly disagree, 7=strongly agree)	*item removed*		
There was certain intentionality in the service failure (1=strongly disagree, 7=strongly agree)	3.14	1.85	.65
They did not really try to satisfy my expectations. (1=strongly disagree, 7=strongly agree)	5.05	1.96	.65

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. R signifies that the item was reverse coded. The first item was removed as it had an extremely low loading value of .2. Although the reliability statistics were low, no further items could be removed, as this would have led to content validity issues. Moreover, the loading values were close to the cut-off of .7.

Appendix 6.16 STUDY 3: Table of Reliability Statistics for Perceived Empathy of Apology Measure

Perceived Empathy of Apology Cronbach's Alpha= .92; CR= .92; AVE= .75	Mean	Standard Deviation	Loading Value
The apology included... ...an expression of concern for my inconvenience.	1.18	.41	.80
...a show of empathy toward me.	1.13	.39	.92
...an indication that the RSW employee cares about how I feel.	1.13	.40	.88
...sympathy for me.	1.10	.39	.85

Notes: This scale was analysed separately from the model variables. All statistics are provided to 2 decimal places. The second empathy item was included in Study 3, as it had not proved to be problematic in the wine retailing context.

Appendix 6.17 STUDY 1: Input of Power Analysis

Criterion	Value
Effect Size	.3
Alpha	.05
Power (1-beta)	.8
df	7
Number of Groups	4
Number of Covariates	4

Appendix 6.18 PILOT STUDY 1: Information Sheet

A Study of Customer Perceptions of Online Shopping experiences

Participant Information Sheet for Survey Participants

This is an invitation to participate in a study conducted by a researcher at the University of Birmingham. This information sheet will help you to understand the research aims of this project and what will be required of you. Please read this sheet carefully and contact the researcher if you have any questions.

Purpose of the research

This study aims to understand how customers respond to online shopping experiences. The goal of this project to explain customers' wine preferences, as well as customers' expectations, attitudes and behaviours after purchasing wine online. In order to obtain natural responses, the specific details of the study purpose will only be provided **after** your survey responses have been collected.

Participant involvement

You will be required to imagine you are participating in a trial online shopping experience (approximately 9 minutes long) with a brand affiliated with the study. This will involve inspecting product displays in an online shopping environment and answering a set of short questions about your perceptions of the products and the shopping experience. Two brands will be included in the study and you will complete the study with **one** of the two brands. You will be asked to imagine participating in a **prize-draw** for a wine bottle and/or a cash prize, as well as examining product offerings and answering brief questions regarding your product preferences. **You will not be required to spend any of your own money during the study.**

Eligibility criteria

You have been invited to participate in this study because you are aged 18 or over.

Please note: If you do not meet this criterion, you will not be able to participate in the study.

Anonymity

All responses will be anonymised and no personally identifiable information will be associated with your responses in any reports of the data. All personal information about you collected during the study will remain confidential. Your answers to questions will be analysed and included in academic research publications. Complete survey responses will only be viewed by the research team. Complete responses will be stored in a password-protected computer and a password-protected account for the Birmingham Environment for Academic Research (BEAR) data store. All data collected for this project will be destroyed 10 years after data collection ends.

Withdrawing from the study

Your participation is voluntary and you will also have the option to withdraw from the study before you complete the survey. If you choose to withdraw from the study, your response data will be destroyed and you will not be paid, but you will not be affected in any other way. If you complete and submit your response, you will not be able to withdraw.

Rewards

Participants will receive £1 for completing the 8-minute survey.

Queries and complaints

If you have any questions or are dissatisfied with any part of this project, please contact the researcher, Lucia Silvestro, by e-mail at [REDACTED], Professor Lloyd C. Harris at [REDACTED] or Dr Doga Istanbuluoglu at [REDACTED].

How to complete the survey

The survey is an online survey, which can be completed on a computer, laptop, tablet or mobile phone. You can complete the survey in a convenient location for you.

If you would like to participate in the research, simply click the link below and complete the survey:

Appendix 6.19 PILOT STUDY 1: Consent Form

A Study of Customer Perceptions of Online Shopping Experiences Consent Form for Survey Participants

Fair Processing Statement

This information is being collected as part of a research project concerned with customers' perceptions of online shopping experiences by a PhD student in the Department of Marketing in the University of Birmingham. The information which you supply and that which may be collected as part of the research project will be entered into a database and will only be accessed by authorised personnel involved in the project. The information will be stored in the Birmingham Environment for Academic Research (BEAR) data store. The information will be retained by the University of Birmingham and will only be used for the purpose of research, and statistical and audit purposes. By supplying this information you are consenting to the University storing your information for the purposes stated above. The information will be processed by the University of Birmingham in accordance with the provisions of the Data Protection Act 2018. No identifiable personal data will be published.

Statement of understanding/consent

*Please read the statements below and tick the boxes to indicate your agreement (to consent to participate in the study, you must tick **all** the boxes):*

I confirm that I am aged 18 years or over.

I confirm that I have read and understand the participant information leaflet for this study. I have had the opportunity to ask questions if necessary and have had these answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw before I complete the survey. I do not need to provide a reason for withdrawal. If I withdraw, I will not receive the payment for survey participation and my data will be removed from the study and will be destroyed. If I complete the survey and submit my response, I cannot withdraw from the study.

I understand that my personal data will be processed for the purposes detailed above, in accordance with the Data Protection Act 2018.

I understand that my prolific participant ID and session duration will be recorded.

Based upon the above, I agree to take part in this study.

Appendix 6.20 Pilot Study 2: Information sheet

Participant Information Sheet for Survey Participants

This is an invitation to participate in a study conducted by a researcher at the University of Birmingham. This information sheet will help you to understand the research aims of this project and what will be required of you. Please read this sheet carefully and contact the researcher if you have any questions.

Purpose of the research

This study aims to understand how customers respond to hotel service experiences. The goal of the study is to explain differences in participants' emotions, attitudes and behaviours following dissatisfying service experiences. In order to obtain natural responses, the specific details of the study purpose will only be provided **after** your survey responses have been collected.

Participant involvement

You will be required to read a description of a hypothetical hotel experience and answer a survey (approximately 9 minutes long). After reading the description, the study also asks you to write about the description and to answer questions about your service expectations and attitudes. You will also be asked to report, on scales of 1-7, how you think you would feel and behave if you had experienced the hotel experience.

Eligibility criteria

You have been invited to participate in this study because you are aged 18 or over. Please note: If you do not meet this criterion, you will not be able to participate in the study.

Anonymity

All responses will be anonymised and no personally identifiable information will be associated with your responses in any reports of the data. All personal information about you collected during the study will remain confidential. Your answers to questions will be analysed and included in academic research publications. Complete survey responses will only be viewed by the research team. Complete responses will be stored in a password-protected computer and a password-protected account for the Birmingham Environment for Academic Research (BEAR) data store. All data collected for this project will be destroyed 10 years after data collection ends.

Withdrawing from the study

Your participation is voluntary and you will also have the option to withdraw from the study before you complete the survey. If you choose to withdraw from the study, your response data will be destroyed and you will not be paid, but you will not be affected in any other way. If you complete and submit your response, you will not be able to withdraw.

Rewards

Participants will receive a payment of £0.88 for completing the 7-minute survey.

Queries and complaints

If you have any questions or are dissatisfied with any part of this project, please contact the researcher, Lucia Silvestro, by e-mail at [REDACTED], Professor Lloyd C. Harris at [REDACTED] or Dr Doga Istanbuluoglu at [REDACTED].

How to complete the survey

The survey is an online survey, which can be completed on a computer, laptop, tablet or mobile phone. You can complete the survey in a convenient location for you.

If you would like to participate in the research, simply click the link below and complete the survey:

Appendix 6.21 PILOT STUDY 2: Consent Form

A Study of Customer Perceptions of Hotel Experiences Consent Form for Survey Participants

Fair Processing Statement

This information is being collected as part of a research project concerned with customer perceptions of hotel service experiences by a PhD student in the Department of Marketing in the University of Birmingham. The information which you supply and that which may be collected as part of the research project will be entered into a database and will only be accessed by authorised personnel involved in the project. The information will be stored in the Birmingham Environment for Academic Research (BEAR) data store. The information will be retained by the University of Birmingham and will only be used for the purpose of research, and statistical and audit purposes. By supplying this information you are consenting to the University storing your information for the purposes stated above. The information will be processed by the University of Birmingham in accordance with the provisions of the Data Protection Act 2018. No identifiable personal data will be published.

Statement of understanding/consent

*Please read the statements below and tick the boxes to indicate your agreement (to consent to participate in the study, you must tick **all** the boxes):*

I confirm that I am aged 18 years or over.

I confirm that I have read and understand the participant information leaflet for this study. I have had the opportunity to ask questions if necessary and have had these answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw before I complete the survey. I do not need to provide a reason for withdrawal. If I withdraw, I will not receive the payment for survey participation and my data will be removed from the study and will be destroyed. If I complete the survey and submit my response, I cannot withdraw from the study.

I understand that my personal data will be processed for the purposes detailed above, in accordance with the Data Protection Act 2018.

I understand that my prolific participant ID will be recorded.

Based upon the above, I agree to take part in this study.

Appendix 6.22 Analysis of PRE-SCREENING STUDY

6.22.1 Recruitment

Pilot

The Pre-Screening Study, Pilot Study 1 and Pilot Study 2 were sent to a small number of participants prior to running the main study to check for typographical and survey flow errors. The recruitment of the main study samples is discussed in the thesis to provide a parsimonious presentation of the data collection. The Pre-Screening Study was first piloted with 11 participants. The sample included in the analysis of the Pre-Screening Study was the first wave of participants to the pre-screening study. For the first wave, 200 participants were recruited through prolific.

Pre-Screening Study rationale

Given the ethical issues associated with encouraging individuals who do not drink alcohol to engage in wine purchasing experiences, a pre-screening study was needed to establish a sample of alcohol consumers. Therefore, the pre-screening studies for Pilot Study 1 and Study 3 included questions concerning costumers' alcohol consumption habits and willingness to participate in a prize draws for wine and cash. The Pre-Screening Study also provided an opportunity to validate the pre-screening criteria obtained from Prolific's custom screening options. The custom screening options selected are provided in table 6.1. All the pre-screening questions were asked, except for the question relating to deception, because participants had to agree to this criterion in order to participate in the main studies. The full survey for the pre-screening studies is provided in appendix 6.22.1.

Table 6.1 Prolific Screening Options

Characteristic	Criterion
Nationality	English
Country of residence	UK
First language	English
Type of alcohol the participant consumes on a regular basis	Wine
Willingness to participate in studies involving deception	Participant is willing to participate in studies involving deception
Participation on prolific	Participant has not participated in a prior study associated with the research project

First wave

A total of 243 responses were obtained on Qualtrics. The data were initially cleaned to ascertain the usable cases for analysis and the number of participants that were eligible for Pilot Study 1. Appendix 6.22.2 provides the details of the cases that were excluded from the analysis and were not invited to Pilot Study 1. In total, 193 analysable cases were obtained and 162 participants were included in a custom allow list for Pilot Study 1. The response rate to Pilot Study 1 indicated that a larger recruitment pool was needed and therefore a further 30 participants were recruited. Overall, the sample of participants in the data file was 277. The exclusion criteria applied in the first phase were applied to the additional data and the number of eligible participants reached 176. This led to the distribution of 180 invites to participate in pilot Study 1. The eligibility of additional responses that were received after this date was logged in the data file, however they were not added to the custom allow list, as the sample was sufficiently large to obtain a sample of 120 participants for Pilot Study 1. The results of the application of the exclusion criteria are provided in appendix 6.22.3.

Second wave

A total of 153 participants responded to the call to participate in Pilot Study 1. 17 participants returned their submissions. 7 were rejected, due to failed attention checks (n=3) or incomplete responses (n=4). This led to an analysable sample of 129. Initial analyses were run concerning the sample of 129; however, many of the associations approached the $p=.05$ significance level, meaning that the effectiveness of the manipulations was ambiguous. Therefore, to increase the clarity of the results, the target sample size for the pilot study was increased to 250-300 to reduce the likelihood of a type II error rate. Accordingly, the remaining eligible participants of the first wave were included in a custom allow list (n=7) and additional 335 responses were recruited to the Pre-Screening Study. 417 responses were obtained in Qualtrics and were pre-screened to increase the recruitment pool for Pilot Study 1. Overall, 291 eligible participants were added to the custom allow list. The results for the exclusion criteria applied in the second wave of the Pre-Screening Study are provided in appendix 6.22.4.

6.22.2 Stimuli Development

This section explains the process utilised to select the experimental stimuli for the pilot study. To measure how many customers would switch to an inferior alternative after a service recovery from double deviation experience, it was necessary to ensure that most customers actively indicated a preference for one of two brands in the beginning of the study. Therefore, the Pre-Screening Study pre-tested the brand preference manipulation, by including one question and two manipulations concerning brand

preferences. Each respondent was randomly allocated to the brand preference question or one of the manipulations, which are presented in Appendix 6.22.1.

The brand preference question included in the pre-screen for Pilot Study 1 facilitated the development of two fictional brand names, which did not elicit significantly different consumer evaluations. Accordingly, six fictional brand names were presented: Corks, Richard Smith Wines, Cellar UK, Vines, Bottle UK and Stewart Jones' Cellar. The brand names were developed by conducting a search of online wine retailers and developing names which appeared in-keeping with the style of real online retailers. In light of prior literature on the appeal of brand names, the choice set included pairs of names that were similar with regard to at least one of a set of characteristics. The characteristics included: meaning, length, vowel sound connotation (Smith, 1998; Lowrey and Shrum, 2007), vowel sound length (Pathak and Calvert, 2021), vowel-to-consonant ratio (Lowrey and Shrum, 2007) and country of origin (Villar et al., 2012). The order of presentation of the brand names was randomised. Participants were required to rate their likelihood of purchasing a wine from each brand on a scale of 1 (strongly disagree) to 7 (strongly agree).

The first brand preference manipulation was based on a manipulation utilised by Bechwati and Morrin (2003), in which the customer views two lists of prices for two ostensibly real, competing brands. The lists are identical except for a set of minor price alterations, which indicate that one brand provides better value for money. This should induce participants to prefer the brand that offers two products at lower prices. The manipulation developed for pre-screen 1a included presenting two fictional brands Cellar UK and Bottle UK and providing two corresponding lists of identical product offerings. Thus, participants viewed two identical lists of wines, including Wine A, Wine

B, Wine C, Wine D and Wine E. The prices of the wines were identical regardless of the brand under which they were listed, except for Wines B, and E which were, respectively, £10 and £3 higher at Bottle UK. Participants were required to choose which wine retailer they would prefer to visit, while imagining that they had a fixed budget.

The remaining third of participants viewed a different brand preference manipulation. The second brand preference manipulation was based on the manipulations used by Aaker and Lee (2001), Pham and Avnet (2004), Florack and Scarabis (2006) and Kareklas et al. (2012) concerning prevention-focused and promotion-focused advertising claims. The first half of the manipulation included two questions concerning hopes and goals, which served as situational primes to encourage customers to focus on promotion, rather than prevention aims. The second half of the manipulation included advertising claims for two fictional wine retail brands: Cellar UK and Bottle UK. The descriptions were based on the manipulations utilised by Kareklas et al. (2012). The description for Cellar UK emphasised promotion goals, while the claim for Bottle UK emphasised prevention goals. The phrasing of the advertising claim for Cellar UK should have been more consistent with the situational prime, and therefore, should have led customers to prefer to purchase from the Cellar UK brand.

6.22.3 Stimuli Selection

193 responses to the Pre-Screening Study were obtained prior to collecting data for Study 1. The initial 193 Pre-Screening Study responses were analysed to establish which manipulation should be utilised in the main study. The results of the Pre-

Screening Study indicated that the number of participants that chose Cellar UK was significantly associated with the price manipulation to which the participants were exposed ($\chi^2(1)=3.92$, $p<.05$). Specifically, the price list manipulation appeared to be more effective than the hopes and goals manipulation, as 84.1% of participants (58/69 cases) selected Cellar UK following the price list manipulation, compared with 69.1% (38/55 cases) for the hopes and goals manipulation.

A repeated measures ANOVA was conducted to establish which brand names did not lead to significantly different customer preferences. This approach is adopted in marketing studies to pre-test experimental stimuli, which are supposed to be similar in a particular aspect (McGowan et al., 2020). 69 participants provided ratings of their likelihood to purchase each brand on a scale of 1-7. The Greenhouse-Geisser estimate indicates a departure from sphericity of .78. The repeated measures ANOVA indicated that brand name significantly influenced purchasing likelihood, as the F statistic was significant after the application of Greenhouse-Geisser correction for sphericity $F(3.92, 266.42)= 3.49$, $P<.01$). The results of the ANOVA are shown in Table 6.2. As the table illustrates, the mean purchase likelihood ratings did not appear to significantly differ for multiple combinations of brand names. The four combinations of brand names for which the difference in purchase likelihood was the smallest were: Richard Smith Wines and Cellar UK, Richard Smith Wines and Vines, Richard Smith Wines and Stewart Jones' Cellar and Stewart Jones' Cellar and Vines. The brand names chosen for Pilot Study 1 were Richard Smith Wines (RSW) and Stewart Jones' Cellar (SJC), because they did not lead to significantly different purchasing likelihood ($RSW(M) = 3.84$ $SJC(M) = 3.81$, $F(1, 68)= .07$, $P=.80$). They were also more theoretically similar than the other brands, as they were similar in length and met the requirements of

similar amounts of consonants and vowels. Moreover, inconsistencies in the inclusion of 'UK' in the brand name could have created confounding effects due to perceptions of the heritage of the brands. Accordingly, RSW and SJC seemed the most appropriate choices.

Table 6.2 PRE-SCREENING STUDY FOR PILOT STUDY 1: Results of Repeated Measures ANOVA of Likelihood to Purchase Each Brand

Transformed Variable	Sum of Squares	df	Mean Square	F	Sig.
corks vs. RSW	2.09	1	2.09	1.08	.30
corks vs. Cellar UK	.93	1	.93	.52	.47
corks vs. Vines	1.45	1	1.45	.59	.44
corks vs. Bottle UK	23.19	1	23.19	14.49	.000***
corks vs. SJC	2.84	1	2.84	2.03	.16
RSW vs. Cellar UK	.23	1	.23	.22	.64
RSW vs. Vines	.06	1	.06	.04	.84
RSW vs. Bottle UK	11.36	1	11.36	6.98	.01*
RSW vs. SJC	.06	1	.06	.07	.80
Cellar UK vs. Vines	.06	1	.06	.04	.85
Cellar UK vs. Bottle UK	14.84	1	14.84	11.58	.001**
Cellar UK vs. SJC	.52	1	.52	.43	.52
Vines vs. Bottle UK	13.04	1	13.04	5.44	.02*
Vines vs. SJC	.23	1	.23	.25	.62
Bottle UK vs. SJC	9.80	1	9.80	6.78	.01*

Notes: * indicates significance at p<.05 level, ** indicates significance at p<.01 level, *** indicates significance at p<.001 level.

Appendix 6.22.1 PRE-SCREENING STUDIES: Survey Questions

In what country do you currently reside? [list of countries provided by Prolific]

What is your nationality? [list of nationalities provided by Prolific]

What is your first language? [list of languages provided by Prolific]

Which of the following types of alcohol do you tend to purchase/drink on a regular basis?

Craft beer/ Lager/ Traditional ales/ Cider/Wine/ Sparkling wine/ Whisky/Bourbon/ Brandy/ Cognac/ Gin/ Rum/ Vodka/ Tequila/ Liqueurs/ Other spirit/ N/A/ I do not drink alcohol

If an online survey offered you the opportunity to be entered into a prize draw for a bottle of wine, would you accept the offer? Yes/No

If an online survey offered you the opportunity to be entered into a prize draw for a £50 cash prize, would you accept the offer? Yes/No

Have you shopped online before? Yes/No

Have you bought wine online before? Yes/No

Brand names question*

*Please read the following brand names for wine sellers. Please rate your likelihood of purchasing a wine product from each brand on a seven-point scale? (1 = "not at all likely," 4= "neither likely nor unlikely" and 7 = "very likely").

*If you are unfamiliar with the brand names, simply provide your best answer based on the brand names listed.

Corks/ Richard Smith Wines/ Cellar UK/ Vines/ Bottle UK/ Stewart Jones' Cellar/ This is an attention check. Please do not select a number for this statement.

Manipulation A*

Wine is often purchased on special occasions, which mark the achievement of life goals (e.g. weddings, buying a new house, job promotions). Please think about two times when you achieved your **past** hopes and goals and list **two** of them. An example of a past goal could be: "In the past, I wanted to become an excellent tennis player".

Please think about your **present** hopes and goals and list **two** of them. An example of a present goal could be: "I want to be a successful author".

Imagine that you have a fixed budget and are going to shop for wine online. Please read the following descriptions of two brands of online wine retailer: **Cellar UK** and **Bottle UK**.

Brand Name: **Bottle UK**

Description: Our wines originate from organic vineyards. The wines are produced using processes that avoid environmental risks. These processes help to prevent damage to the natural landscape, to reduce the level of harmful chemicals in the air, water and soil.

Based on the information above, please rate **Bottle UK** on a scale of 1 to 7.

What kind of attitude do you have about Bottle UK ? (1=Negative Attitude, 7=Positive Attitude)
What kind of image does Bottle UK have? (1=Negative Image, 7=Positive Image)
How would you rate your perception of the quality delivered by Bottle UK ? (1=Low Quality, 7=High Quality)
Would you be willing to pay more for Bottle UK ? (1=Definitely Not, 7=Definitely)
How loyal do you intend to be to Bottle UK ? (1= Not at all loyal, 7= Very loyal)
This is an attention check. Please do not select a number for this statement.

Brand Name: **Cellar UK**

Description: Our wines are sourced from organic vineyards. The wines are produced using processes that achieve environmental goals. These processes help to nurture the natural landscape and improve the quality of the air, water and soil.

Based on the information above, please rate **Cellar UK** on a scale of 1 to 7.

What kind of attitude do you have about Cellar UK ? (1= Negative Attitude, 7= Positive Attitude)
What kind of image does Cellar UK have? (1= Negative Image, 7= Positive Image)
How would you rate your perception of the quality delivered by Cellar UK ? (1= Low Quality, 7= High Quality)
Would you be willing to pay more for Cellar UK ? (1= Definitely Not, 7= Definitely)
How loyal do you intend to be to Cellar UK ? (1= Not at all loyal, 7= Very loyal)

Please select the online store you would prefer to visit, by selecting one of the statements below.

I would prefer to visit **Bottle UK/ Cellar UK**.

Manipulation B*

Imagine that you are going to shop for wine online. You are going to see a list of wine prices for two brands of online wine retailers, **Cellar UK** and **Bottle UK**. The names of the wine bottles will be hidden and the wine products offered by Cellar UK and **Bottle UK** are **identical**. **Please read the price lists in the table.**

Bottle UK Wines	Bottle UK Prices
Wine A	£17.95
Wine B	£24.95
Wine C	£23.95
Wine D	£16.95
Wine E	£25.95

Cellar UK Wines	Cellar UK Prices
Wine A	£17.95
Wine B	£14.95
Wine C	£23.95
Wine D	£16.95
Wine E	£22.95

Please imagine that you have a fixed budget and are going to purchase wine from one of the retailers. Select the online store you would prefer to visit, by selecting one of the statements below.

I would prefer to visit **Bottle UK/Cellar UK**.

The following question includes a 1-7 scale (1=strongly disagree, 7= strongly agree). This is an attention check. Please do not select a number for this statement

Notes: * denotes an experimental condition that was only viewed by the participants who participated in Pre-Screening Study for Pilot Study 1 (wave 1; phase 1).

Appendix 6.22.2 PRE-SCREENING STUDY: Exclusion Criteria for Analysis and Recruitment Pool for Phase 1 of Wave 1

Criterion	Payment of Participant	Number of Participants		
			Analysis	Recruitment Pool for Pilot Study 1
Response obtained in Qualtrics		243	N/A	N/A
Timed-out	None	2	E	E
Returned submission	None	28	E	E
Rejected due to failure of attention check	None	10	E	E
No prolific-ID provided	None	1	E	E
Incomplete response to screening questions (potential technical error)	Participant was paid as they provided an incomplete response, but manually entered the completion code. Prolific advises payment in such cases as there could have been a technical error.	1	E	E
Inconsistent screening response (could not be rejected)	Participant was paid as the maximum number of rejections on prolific was exceeded. However, participant could not be included in further analyses.	1	E	E
Inconsistent screening response (could be typographical error²)	Participant was paid and included in Pilot Study 1 recruitment pool as they selected the nationality option that was positioned one line below 'English'. This was considered to be a potential typographical error.	1	E	I
No consent given	Participant was paid for participation, as although they did not provide consent	1	E	E

² This participant did not respond to the call for participants for Pilot Study 1. Therefore, their failure to meet the nationality criterion did not affect the quality of the data.

	to participate, they completed survey. However, participant could not be included in further analyses.			
Amended responses³	Participants who amended their responses when provided opportunity to amend their response to the pre-screening question concerning their drinking habits.	3	I	I
Incomplete responses to experimental manipulations	Total number of participants who did not respond to one or more questions following the experimental manipulations	5	E	I
Total number of participants eligible for inclusion	Paid		193	199
Advanced Screening Criteria for Recruitment Pool				
Participant would not participate in a prize-draw for wine			Paid	27 (E)
Participant would not participate in a prize-draw for cash			Paid	12 (E)
Participant was eligible for inclusion in the pilot study call but had participated in the pilot version of pilot study 1 and therefore, could not be included in the recruitment pool.			Paid	9 (E)
Participant met one or more of the extended criteria for exclusion from pilot study 1			Paid	37
Total number of eligible participants to receive the call to participate in pilot study 1			Paid	162

Notes: 'I' indicates that the participant was included in the analysis and/or recruitment pool for pilot study 1. 'E' indicates that the participant was included in the analysis and/or recruitment pool for pilot study 1.

³ Due to a large number of respondents who provided inconsistent screening criteria, prolific advised that respondents be given the opportunity to retrospectively alter their answer to the question concerning what type of alcohol they purchase on a regular basis. Participants were given the option to retrospectively alter their response through the Prolific message function and some participants altered their response, leading to their inclusion in the custom allow list for Pilot Study 1.

Appendix 6.22.3 PRE-SCREENING STUDY: Exclusion Criteria for Recruitment

Pool for Phase 2 of Wave 1

Criterion	Payment of Participant	Number of Participants
Total number of responses obtained in Qualtrics		277
Timed-out	None	2 (E)
Returned submission	None	29 (E)
Rejected due to failure of attention check	None	10 (E)
Rejection due to incomplete response to screening questions	None	1 (E)
No prolific-ID provided	None	2 (E)
Incomplete response to screening questions (potential technical error)	Participant was paid as they provided an incomplete response, but manually entered the completion code. Prolific advises payment in such cases as there could have been a technical error.	1 (E)
Inconsistent screening response (could not be rejected)	Participant was paid as the maximum number of rejections on prolific was exceeded. However, participant could not be included in further analyses.	1 (E)
Inconsistent screening response (could be typographical error)	Participant was paid and included in Pilot Study 1 recruitment pool as they selected the nationality position one line below 'English' and so this was thought to be a typographical error.	1 (I)
No consent given	Participant was paid for participation, as although they did not provide consent to participate, they completed survey. However, participant could not be included in further analyses.	1 (E)
Amended responses	Participants who amended their responses when provided opportunity to amend their response to the pre-screening question concerning the alcohol they drink on a regular basis	4 (I)

Participant would not participate in a prize-draw for wine	Paid	44 (E)
Participant would not participate in a prize-draw for cash	Paid	16 (E)
Participant met exclusion criteria but had participated in the pilot version of Pilot Study 1 and therefore, could not enter the recruitment pool for Pilot Study 1	Paid	9 (E)
Participant was eligible but responded after the recruitment pool was sufficiently large to obtain the required sample for Pilot Study 1	Paid	7 (E)
Participant met one or more of the criteria for exclusion from pilot study call	N/A	101
Total number of eligible participants to receive the call to participate in Pilot Study 1	Paid	176

Notes: 'I' indicates that the respondent was included in the pilot study recruitment pool. 'E' indicates that the respondent was excluded from the recruitment pool. Total number of eligible participants does not equal the total of groups designated 'E', because a participant could meet more than one exclusion criterion. The sample of 277 includes the original 243 responses obtained.

Appendix 6.22.4 PRE-SCREENING STUDY: Extended Exclusion Criteria for Recruitment Pool for Wave 2

Criterion	Payment of Participant	Number of Participants
Total number of responses obtained in Qualtrics	N/A	417
Timed-out	None	3 (E)
Returned submission	None	65 (E)
Rejected due to failure of attention check	None	12 (E)
Rejection due to incomplete response to screening questions	None	1 (E)
Rejection due to incomplete response to questions following brand name question⁴	None	1 (E)
No prolific-ID provided	N/A	0
Incomplete response to screening questions (potential technical error)	N/A	0
Inconsistent screening response (could not be rejected)	N/A	0
Inconsistent screening response (could be typographical error)	N/A	0
No consent given	N/A	0
Amended responses	N/A	0
Participant would not participate in a prize-draw for wine	Paid	109
Participant would not participate in a prize-draw for cash	Paid	60
Participant met one or more of the criteria for exclusion from pilot study call	N/A	126 (E)
Participant was eligible but responded after the recruitment pool was sufficiently large to obtain the required sample for Pilot Study 1⁵	Paid	7 (E)
Total number of participants eligible to receive the call to participate in Pilot Study 1	N/A	284

Notes: 'E' indicates that the participant was excluded from Pilot Study 1 recruitment pool. The sample of 417 is exclusive of the 277 responses received before the initial analysis of pilot study 1.

⁴ This respondent failed to answer one of the Likert-type scale questions immediately preceding the attention check in a very short version of the study. Therefore, the respondent was deemed not to have devoted sufficient attention to the study to be paid.

⁵ 5 participants responded after the 14th. 2 responses were received on the 14th, but were not recorded in Qualtrics at the time the data were analysed and therefore, were not included in the custom allow list.

Appendix 6.23 Analysis of PILOT STUDY 1

Appendix 6.23 provides an overview of the recruitment approach, experimental design and results of the analysis of Pilot Study 1. This is not included in the main text of the thesis, as the main aims of the pilot study were to pre-test the scenarios and ascertain the time participants would require to complete the experiment.

6.23.1 Recruitment

An initial sample of 120 was recruited to Pilot Study 1. 129 eligible responses were obtained from the first recruitment call. However, as many of the effects approached statistical significance, the decision was made to increase the sample size to the 250-300 that would be recruited in the main studies. Therefore, a further 171 places were made available. Overall, 333 responses were obtained for Pilot Study 1. Participants were removed from the analysis in accordance with a set of screening criteria, which are provided in Table 6.3. The total number of analysable responses was 281. Table 6.4 displays the demographic characteristics of the sample. Examples of the information sheet and consent form are provided in Appendices 6.18 and 6.19.

Table 6.3 PILOT STUDY 1: Exclusion Criteria

Exclusion Criterion	Number of Participants who met the Exclusion Criterion
Returned submission	26
Timed-out on prolific	1
Rejected submission due to incomplete survey response	3
Experienced technical error	12
Failed the Oppenheimer attention check	3
Failed the attention check concerning the language on the wine bottle	5
Guessed the study purpose	1
Incomplete survey response⁶	1
Number of participants who failed one or more of the exclusion criteria	52
Total Analysable Sample	281

⁶ This participant could not be rejected as they had spent a reasonable amount of time attempting to answer the survey and had answered most survey questions, but exited the survey just before the end. Therefore, they were paid, but excluded from analysis.

Table 6.4 PILOT STUDY 1: Demographics

Variable	Number of Participants in Each Category
Age	
18-24	41
25-29	34
30-39	91
40-49	52
Over 49	63
Prefer not to say	0
Gender	
Male	86
Female	192
Part time as one gender, part time as another	1
A gender not listed here please specify: answer not provided	1
Prefer not to say	1
Income	
£0-499	4
£500-999	10
£1,000-1,999	65
£2,000-2,999	71
£3,000-£3,999	55
£4,000-4,999	41
£5,000 or more	24
Prefer not to say	11

6.23.2 Design

The purpose of Pilot Study 1 was to ensure that the manipulations utilised in Study 3 would be effective. The experimental design was adapted from a previous study by Fitzsimons (2000), which captures participants' responses to stock-outs by artificially manipulating a stock-out experience with a CD retailer and measuring customers' repatronage intent after the stock-out. The respondents to Pilot Study 1 were encouraged to imagine that they were involved in the service experience, whereas the Study 3 participants were led to believe that the situation was real. Pilot Study 1 included a between-subjects design with four empathy of the apology conditions (perfunctory apology; low empathy apology; medium empathy apology; high empathy apology).

6.23.3 Stimuli

The double deviation and recovery scenarios utilised in Pilot Study 1 are provided in appendices 6.3-6.4. The first stage of the experimental manipulations included a brand preference manipulation. To achieve the brand preference manipulation, participants were asked to imagine that they were going to experience an online shopping scenario with a brand. They were then required to inspect wine price lists for 'Richard Smith Wines' and 'Stewart Jones' Cellar' and choose the brand with which they would prefer to participate in an online shopping experience. Participants who selected Stewart Jones' Cellar were informed that the Stewart Jones' Cellar study was oversubscribed, before proceeding to a shopping experience with Richard Smith Wines. Next, participants received a message instructing them to imagine that they were to be

entered into a prize draw and needed to select a product from three prize choices that were identical to those that were displayed in Study 3. After exposure to the manipulation, 125 participants chose prize A, whereas 76 participants selected prize B and 80 participants selected prize C. If participants selected either B or C, they viewed the same double deviation as participants who selected A.

Before participants viewed the out-of-stock notification, they were asked to respond to an attention check which asked customers to report the language that appeared on the wine bottles. Participants were also required to report their preferred prize (A, B or C) and why they chose the product, in order to intensify the feeling of disappointment following the stock-out. The double deviation manipulation took the form of two separate messages. The first message asked participants to imagine that they received a notification that due to a high level of demand for their chosen prize, the prize was unavailable. The following screen asked participants to imagine that they would be given prize D instead. This manipulation signified a double deviation, as prize D cost £6.99, indicating that it was not a prize of equal value to their preferred choice. Participants were then asked to specify the level of compensation that would be appropriate to recover from the failure.

Next, participants were exposed to a double deviation service recovery scenario, which included the empathy of the apology manipulation, as well as a level of monetary compensation that matched customers' compensation expectations. The empathy of the apology manipulations were developed with reference to previous studies concerning the effect of perceived empathy on customers' post-recovery evaluations and intentions. Roschk and Kaiser (2013) show that when service providers offer apologies with low levels of empathy, customers' service recovery

satisfaction ratings are not significantly higher than the service recovery satisfaction ratings of customers who do not receive an apology. This indicates that the low empathy of the apology condition could be utilised as a control condition. However, Schlenker and Darby (1981) illustrate that individuals display a higher likelihood to use a token or perfunctory apology, such as 'pardon me' rather than "I'm sorry", following mild than severe transgressions. Equally, Fatigante et al. (2016) analyse the utilisation of 'sorry' and 'I'm sorry' in social interactions and find that individuals appear to use 'sorry' as a method to quickly move on from the apology, whereas 'I'm sorry' tends to be used to emphasise the apology. These findings indicate that participants may distinguish between perfunctory apologies (i.e., 'Sorry!') and longer apologies. Therefore, an alternative control condition of 'Sorry!' was included in Pilot Study 1 to clarify whether customers distinguished between perfunctory and low empathy apologies.

6.23.4 Manipulation Checks

The list of manipulation checks included in Pilot Study 1 is provided in appendix 6.5. The mean of the realism measure ($M=5.48$, Cronbach's $\alpha=.85$) indicated that participants considered the scenario to be believable and realistic (see appendix 6.7). Grégoire and Fisher's (2006) measure of service encounter dissatisfaction was utilised to gain two ratings of participants' perceptions of how dissatisfied they would be after the failure and after the offer of prize D. To provide further evidence of the success of the double deviation and service recovery manipulations, a measure of service recovery satisfaction from Gelbrich et al. (2015) was used to capture the extent to which customers were satisfied with the first and second recovery attempt.

Dissatisfaction at time 1 (following the initial failure) was compared with dissatisfaction at time 2 (following the double deviation manipulation). A paired samples t-test was conducted and yielded a significant difference in the mean values of dissatisfaction (dissatisfaction at t1 M= 4.05, dissatisfaction at t2 M= 4.73), $t(280) = -6.02$, $p < .001$). Moreover, a paired samples t-test indicated that the recovery satisfaction mean after the service recovery from double deviation (8.31) was significantly higher than the initial recovery satisfaction rating (M=3.22, $t(280) = -27.60$, $p < .001$).

Before assessing the effect of the experimental conditions on participants' perceived empathy ratings, exploratory factor and reliability analyses of the empathy measure were conducted. An exploratory factor analysis utilising principal axis factoring indicated that the items correlated highly with each other ($\alpha = .93$; appendix 6.8). The mean level of perceived empathy for each experimental group is provided in table 6.5, as well as the results of independent samples t-tests. The results provided a clear indication of the experimental conditions that influenced the dependent variable. The low empathy (M= 4.93) and perfunctory apology (M= 5.05) groups did not lead to significantly different levels of perceived empathy. This indicates that the low empathy apology did not afford higher perceived empathy than a perfunctory apology. Therefore, in subsequent studies, the low apology condition was utilised as the control condition. The mean value of perceived empathy appeared to be higher for the medium empathy group than for the low empathy group (low empathy apology M= 4.93; medium empathy apology M= 5.61; $p < .01$). Similarly, the mean value of perceived empathy in the high empathy group was significantly higher than for the low empathy group (low empathy apology M= 4.93; high empathy apology M= 5.51; $p < .05$). These

results indicated that the low empathy apology and medium empathy of apology conditions could be utilised to vary the level of empathy of apology in Study 3.

Table 6.5 PILOT STUDY 1: Empathy of the Apology Means by Apology Condition

Variable	Perfunctory Apology (Group 1) M(SD)	Low Empathy Apology (Group 2) M(SD)	Medium Empathy Apology (Group 3) M(SD)	High Empathy Apology (Group 4) M(SD)
Perceived Empathy of the Post-double Deviation Apology	5.05	4.93	5.61 t1*(142)= 2.50 t2**(135)= 3.03	5.51 t1(142)= 1.95 t2*(135)= 2.45

Notes: group 1 n=73, group 2 n=66, group 3 n=71, group 4 n=71. Independent samples t-tests indicated that groups marked 't1' differed from the perfunctory apology condition at a level approaching statistical significance ($p < .1$). Independent samples t-tests indicated that groups marked 't1*' differed significantly from the perfunctory apology condition ($p < .05$). Independent samples t-tests indicated that groups marked 't2*' differed significantly from the low empathy apology group ($p < .05$). Independent samples t-tests indicated that groups marked 't2**' differed significantly from the low empathy apology group ($p < .01$). Statistics rounded to 2 decimal places.

6.23.5 Measures

The full list of measures included in Pilot Study 1 is provided in appendix 6.5. Following the double deviation scenario, participants responded to a set of control measures for the level of perceived severity of the failure and the attribution of blame for the failure. Participants were then required to state the appropriate level of monetary compensation following the double deviation. This approach is adopted by Hogreve et al. (2017) and Roschk and Gelbrich (2017). The analysis of the responses to the prize draw question indicated that the mean of the perceived appropriate voucher values specified by the participants was 27.74, whereas the median was 29.95. The average

of the mean and median (£28.85) was calculated rounded to the nearest pound sterling to create the voucher value utilised in the final prize-draw in Study 3. The rounding procedure was necessary, as participants' responses tended to be given in round numbers, or values ending in .99 or .95.

After exposure to the service recovery manipulation, participants responded to measures of distributive justice and empathy of the apology. The next screen of the survey required participants to engage in a recall task concerning the scenario (Bonifield and Cole, 2008). Participants then responded to a measure of satisfaction with service recovery from double deviation (Gelbrich et al., 2015) and avoidance desires (Grégoire et al, 2009). The outcome measure included in this study was a five-item measure of desire for revenge adapted from Grégoire et al. (2010, 2018) and Joireman et al. (2013). The measure required participants to rate their perception that they would desire revenge if the scenario had happened to them. An example item includes "after what has happened, I would want to... take actions to get Taskell's in trouble". Demographic measures of age, gender (Harrison et al., 2012) and income (Gelbrich et al., 2015) were included to provide contextual information about the sample. The demographic measures were followed by a question to check that participants had not guessed the purpose of the study. Finally, participants were thanked for their participation and fully informed of the purpose of the study.

6.23.6 Analysis

The pilot study data were analysed using PLS-SEM to establish whether the measures appeared to be related to each other and whether the items representing the variables loaded on the relevant latent variables. Appendices 6.23.1-6.23.5 provide the results

of the PLS-SEM analysis, which indicate that the measures in the conceptual model do appear to be associated and that the items converge on their respective latent constructs. Appendices 6.23.6-6.23.7 provide the results of an ANCOVA analysis which shows that the empathy of apology condition did not significantly influence desires for revenge following the double deviation.

Appendix 6.23.1 PILOT STUDY 1: Reliability Estimates for Perceptual Measures

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Avoidance Desires	0.94	0.97	0.94
Blame	0.81	0.89	0.72
Distributive Justice	0.94	0.96	0.88
Revenge Desires	0.94	0.95	0.80
Severity	0.88	0.92	0.80

Appendix 6.23.2 PILOT STUDY 1: Bootstrapped Confidence Intervals and P-Values for the Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Bootstrapped LLCI (2.50%)	Bootstrapped ULCI (97.50%)
Blame -> Avoidance desires	0.14	0.14	0.05	2.90	0.004**	0.037	0.222
Blame -> Revenge Desires	0.07	0.07	0.06	1.19	0.235	-0.056	0.185
Distributive Justice -> Avoidance Desires	-0.60	-0.60	0.05	12.50	P<.001***	-0.69	-0.503
Distributive Justice -> Revenge Desires	-0.23	-0.23	0.06	3.68	P<.001***	-0.343	-0.107
Severity -> Avoidance Desires	0.11	0.11	0.05	2.03	0.043*	0.003	0.207
Severity -> Revenge Desires	0.13	0.14	0.06	2.16	0.031*	0.006	0.237

Notes: * indicates significance at p<.05 level, ** indicates significance at p<.01 level, *** indicates significance at p<.001 level. Bootstrapped confidence intervals are provided to 3 decimal places.

Appendix 6.23.3 PILOT STUDY 1: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Error of Mean	Std. Deviation
Blame	281	6.00	1.00	7.00	4.82	.08	1.32
Distributive Justice	281	6.00	1.00	7.00	5.51	.09	1.45
Severity	281	6.00	1.00	7.00	3.18	.09	1.43
Avoidance Desires	281	6.00	1.00	7.00	2.64	.10	1.63
Revenge Desires	281	6.00	1.00	7.00	1.36	.04	.73

Appendix 6.23.4 PILOT STUDY 1: Construct Correlations

	Avoidance desires	Blame	Distributive Justice	Revenge Desires	Severity
Avoidance Desires	-				
Blame	0.17*	-			
Distributive Justice	-0.61***	-0.02	-		
Revenge Desires	0.38***	0.11	-0.23***	-	
Severity	0.17**	0.20**	-0.06	0.16*	-

Notes: * indicates significance level of $p < .05$, ** indicates significance level of $p < .01$ and *** indicates significance level of $p < .001$. Critical values for product-moment correlation (pearson) coefficient can be found in Weathington et al. (2012).

Appendix 6.23.5 PILOT STUDY 1: Heterotrait-monotrait Ratio of Correlations

Table

	Avoidance Desires	Blame	Distributive Justice	Revenge Desires
Blame	0.18			
Distributive Justice	0.65	0.07		
Revenge Desires	0.41	0.12	0.25	
Severity	0.18	0.22	0.07	0.17

Appendix 6.23.5 PILOT STUDY 1: Loading Values and Bootstrapped Confidence Intervals

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Bootstrapped LLCI (2.50%)	Bootstrapped ULCI (97.50%)
A1 <- Avoidance Desires	0.97	0.97	0.01	162.79	P<.001***	0.96	0.98
A3 <- Avoidance Desires	0.97	0.97	0.01	106.42	P<.001***	0.95	0.98
B1 <- Blame	0.82	0.80	0.09	9.02	P<.001***	0.61	0.90
B2 <- Blame	0.81	0.79	0.09	8.52	P<.001***	0.55	0.89
B3 <- Blame	0.92	0.91	0.06	16.35	P<.001***	0.86	0.99
D1 <- Distributive Justice	0.95	0.95	0.01	125.64	P<.001***	0.94	0.97
D2 <- Distributive Justice	0.94	0.94	0.01	65.84	P<.001***	0.90	0.96
D3 <- Distributive Justice	0.93	0.93	0.01	75.66	P<.001***	0.90	0.95
R1 <- Revenge Desires	0.89	0.89	0.04	23.13	P<.001***	0.80	0.95
R2 <- Revenge Desires	0.91	0.91	0.03	34.22	P<.001***	0.85	0.95
R3 <- Revenge Desires	0.86	0.86	0.05	16.86	P<.001***	0.73	0.93
R4 <- Revenge Desires	0.90	0.90	0.02	39.52	P<.001***	0.85	0.94
R5 <- Revenge Desires	0.89	0.88	0.04	23.56	P<.001***	0.80	0.94
S1 <- Severity	0.92	0.91	0.05	19.08	P<.001***	0.80	0.95
S2 <- Severity	0.88	0.87	0.06	13.83	P<.001***	0.71	0.93
S3 <- Severity	0.89	0.88	0.05	19.09	P<.001***	0.82	0.98

Notes: All statistics are provided to 2 decimal places, except for standard deviations, which are provided to 3 decimal places. 'S1', 'S2' and 'S3' denote severity indicators; 'B1', 'B2' and 'B3' denote blame indicators; 'D1', 'D2' and 'D3' denote distributive justice perceptions indicators, 'A1' and 'A3' denote avoidance desires indicators and 'R1', 'R2', 'R3' and 'R4' denote revenge desires indicators. All indicators are ordered as shown in the table of measures in chapter 7.

LLCI= Lower level confidence interval, ULCI= Upper level confidence interval.

Appendix 6.23.6 PILOT STUDY 1: ANCOVA of Revenge Desires

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6.17	7	.88	1.67	.12
Intercept	7.94	1	7.94	15.08	p <.001***
Severity	2.59	1	2.59	4.91	.03*
Blame	.88	1	.88	1.67	.20
Voucher Prize Value	.10	1	.10	.19	.66
Gender	.15	1	.15	.29	.59
Apology	1.12	3	.37	.71	.55
Error	142.23	270	.53		
Total	655.32	278			
Corrected Total	148.40	277			

Notes: *indicated p<.05 level of significance, ** indicates p<.01 level of significance. R Squared = .04 (Adjusted R Squared = .02)

TABLE 6.23.7 PILOT STUDY 1: Reverse Helmert Contrasts of Experimental Conditions

Contrast of Apology Conditions		Revenge Desires
Contrast Estimate		.13
Hypothesized Value		0
Difference (Estimate - Hypothesized)		.13
Std. Error		.13
Sig.		.31
95% Confidence Interval for Difference	-12	-15
	.38	.37
Contrast Estimate		.11
Hypothesized Value		0
Difference (Estimate - Hypothesized)		.11
Std. Error		.11
Sig.		.31
95% Confidence Interval for Difference	-10	-11
	.32	.32
Contrast Estimate		.01
Hypothesized Value		0
Difference (Estimate - Hypothesized)		.01
Std. Error		.10
Sig.		.94
95% Confidence Interval for Difference	-19	-19
	.21	.22

Appendix 6.24 Analysis of Pilot Study 2

Appendix 6.24 presents the results of the analysis of Pilot Study 2. The recruitment procedures, experimental design and results of the analyses are discussed. These analyses provide additional support for the validity of the experimental conditions. The analysis of the pilot study is presented as an appendix to the main thesis to provide a parsimonious account of the data collection and analysis.

6.24.1 Recruitment

The power analysis approach applied to Pilot Study 1 was applied to Pilot Study 2 and a sample of between 300 and 400 was deemed appropriate for the study. The information sheet and consent forms for Pilot Study 2, Study 1 and Study 2 followed a similar format. The information sheet and consent forms for Pilot Study 2 are provided in appendices 6.20 and 6.21, respectively. 450 participants were invited to participate, due to the potential for respondents to not meet the recruitment criteria. 470 cases were obtained in the Qualtrics data file. After participants who met a set of exclusion criteria were removed from analysis, 387 participants remained. Table 6.6 provides the exclusion criteria and table 6.7 provides the demographic distribution of the sample.

Table 6.6 PILOT STUDY 2: Exclusion Criteria

Exclusion Criterion	Number of Participants who met the Exclusion Criterion
Timed-out on prolific	1
Returned submission	2
Rejected submission	0
Participant had not bought a hotel trip before	43
Participant failed attention check (i.e., the adapted Oppenheimer manipulation check)	0
Participant's reported level of expected compensation was over 3 standard deviations above the mean.⁷	1
Failed the compensation manipulation check	24
Participant did not complete survey but did not return submission or time out.⁸	15
Inconsistent screening information	0
Participant guessed study purpose	0
Number of participants who failed one or more of the exclusion criteria	83

⁷ This criterion was only applicable to Pilot Study 2. This case was an anomalous case that had to be removed as they stated compensation expectations of £1000.

⁸ These participants abandoned the survey early on and did not select the option to return their submission on prolific. Hence, there is no usable response data for these participants.

Table 6.7 PILOT STUDY 2: Demographic Characteristics

Variable	Number of participants in each category
Age	
18-24	82
25-29	63
30-39	111
40-49	58
Over 49	72
Prefer not to say	1
Gender	
Male	122
Female	257
Part time as one gender, part time as another	2
A gender not listed here please specify: non-binary	4
A gender not listed here please specify: no gender identity	1
Prefer not to say	1
Income	
£0-499	10
£500-999	21
£1,000-1,999	84
£2,000-2,999	102
£3,000-£3,999	61
£4,000-4,999	27
£5,000 or more	45
Prefer not to say	37

6.24.2 Design and Stimuli

Pilot Study 2 was conducted to pre-test the independent variable manipulations included in the hotel studies (i.e., Study 1 and Study 2). The study design included a 3 (empathy of the post-double deviation apology: low empathy; medium empathy; high empathy) × 2 (monetary compensation: simple monetary compensation; monetary overcompensation) between-subjects experiment. The double deviation and recovery scenarios are presented in appendices 6.1 and 6.2. Each scenario described a situation in which a customer had pre-booked a hotel stay but discovered on arrival that there would be a 3-hour delay before they could enter their room. The customer complained to a hotel employee and the employee failed to resolve the problem. Finally, participants read a service recovery from double deviation scenario, in which the customer received an apology and monetary compensation from the manager.

The apology conditions were adapted from the conditions utilised in Pilot Study 1. However, the high empathy of the apology condition was adapted to include the word 'very', to reflect the higher level of severity associated with the failure condition in this study. The simple compensation level was the voucher value that participants had stated would be appropriate and the overcompensation manipulation included the simple compensation level and an extra £50 voucher. After reading the manipulations, participants were required to respond to a set of attention, manipulation and realism checks. The attention, manipulation and realism checks used in Pilot Study 2 were identical to those utilised in Study 1. The recall task, demographic measures and the question concerning the study purpose utilised in Study 1 were also included.

6.24.3 Manipulation Checks

The wording of the manipulation checks is provided in appendix 6.6. Participants considered the scenario to be believable and realistic (perceived realism $M = 5.14$, Cronbach's $\alpha = .78$; appendix 6.9). A paired samples t-test provided support for the conceptualisation of the service experience as a double deviation (dissatisfaction at t_1 $M = 5.67$, dissatisfaction at t_2 $M = 5.93$), $t(386) = -4.44$ $p < .001$). The means of perceived empathy (Cronbach's $\alpha = .96$; appendix 6.10) for each experimental group are provided in table 6.8, as well as the results of independent samples t-tests. The means of the low, medium and high empathy apology conditions were compared, as well as the means of the simple and overcompensation conditions. Table 6.8 illustrates that participants displayed significantly higher levels of perceived empathy when they were subjected to the medium and high empathy conditions than when they were subjected to the low empathy conditions. However, no significant difference occurred for participants' empathy ratings in the high empathy condition rather than the medium empathy condition.

Table 6.8 PILOT STUDY 2: Empathy of Apology Means by Experimental Condition

Variable	Low Empathy Apology M(SD)	Medium Empathy Apology M(SD)	High Empathy Apology M(SD)	Simple Compensation M(SD)	Over-compensation M(SD)
Perceived Empathy of the Post-double Deviation Apology	3.60	5.58 t1***(254)=-10.62	5.48 t1***(256)=-9.93	4.73	5.09 t2*(385)=-2.11

Notes: Low empathy condition N=127, medium empathy condition N=129, high empathy condition N=131; simple compensation condition N=205, overcompensation condition N=182. Independent samples t-tests were used to compare the experimental conditions. The apology group marked 't1***' differed significantly from the low apology group condition (p<.001). The compensation group marked 't2*' differed significantly from the simple compensation condition (p<.05).

The findings of Pilot Study 2 were highly consistent with the findings of Pilot Study 1, indicating that participants did not appear to distinguish between the medium and high empathy conditions. Therefore, the main studies focussed on modelling the effects of the medium empathy of the apology condition on revenge desires and behaviours, rather than the effects of multiple levels of empathy. Given that the findings across the two pre-tests indicated that the participants could only distinguish two levels of empathy from the manipulations provided, the main studies refer to the 'medium empathy condition' as the 'high empathy condition'.

6.24.4 Measures

The measures utilised in Pilot Study 2 are provided in appendix 6.6. Before exposing participants to the scenarios, participants were asked whether they had ever bought hotel trips before and if so, how many times they had bought hotel trips in the past 5 years. This was necessary to provide contextual information about the experience of the sample, as this may impact on the realism of participants' responses and participants' recovery expectations. The study also included control variables of failure severity, blame attributions (adapted from Maxham and Netemeyer, 2002a; Grégoire et al., 2010; Joireman et al., 2013) and stability attributions (Grewal et al., 2008). Transaction-specific dissatisfaction (Grégoire and Fisher, 2006) was incorporated to check that customers interpreted the scenario to be a double deviation. The manipulation checks for the level of perceived empathy of apology and monetary compensation were included, as well as the attention, realism and recall tasks included in Study 1. The dependent variable was a measure of participants' revenge desires adapted from Grégoire et al. (2010, 2018) and Joireman et al. (2013). An example

adapted item includes: “after what has happened, I would want to... take actions to get the hotel in trouble” (Grégoire et al., 2010). Finally, the demographic measures incorporated in Pilot Study 1 were included in Pilot Study 2, as well as the question concerning the study purpose.

6.24.5 Analysis

To assess the relationships between the control measures and revenge desires, a PLS-SEM model was constructed. The PLS-SEM model provided an indication of whether the variables were associated in a manner that was consistent with previous research and the extent to which the items loaded on their relevant constructs. Appendices 6.24.1-6.24.6. provide the results of the PLS-SEM analysis, which indicated that the variables were related to each other and that the measures could be used in the main studies. The PLS-SEM analysis was followed by a set of factorial ANCOVA analyses, in which empathy of the apology and monetary overcompensation were found to significantly influence revenge desires. The results of the ANCOVA analyses are provided in appendices 6.24.7-6.24.10.

Appendix 6.24.1 PILOT STUDY 2: Reliability Estimates for Perceptual Measures

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Blame	0.79	0.86	0.68
Revenge Desires	0.95	0.96	0.82
Severity	0.90	0.94	0.83
Stability	N/A	N/A	N/A

Appendix 6.24.2 PILOT STUDY 2: Bootstrapped Confidence Intervals and P-Values for the Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic (O/STDEV)	P Values	Bias-Corrected and Accelerated Confidence Intervals	
						2.5%	97.5%
Blame -> Revenge Desires	0.00	0.02	0.05	0.05	0.96	-0.20	0.07
Severity -> Revenge Desires	0.19	0.19	0.05	3.58	P<.001***	0.08	0.29
Stability -> Revenge Desires	0.16	0.16	0.05	3.57	P<.001***	0.07	0.25

Appendix 6.24.3 PILOT STUDY 2: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Standard Error of Mean	Standard Deviation
Severity	387	6.00	1.00	7.00	5.37	.07	1.34
Blame	387	6.00	1.00	7.00	6.22	.05	1.05
Stability	387	6.00	1.00	7.00	3.93	.06	1.18
Revenge Desires	387	6.00	1.00	7.00	2.33	.07	1.37

Appendix 6.24.4 PILOT STUDY 2: Construct Correlations

	Blame	Revenge Desires	Severity	Stability
Blame	-			
Revenge Desires	0.1	-		
Severity	0.38***	0.21***	-	
Stability	0.14*	0.19***	0.15**	-

Notes: * indicates significance level of $p < .05$, ** indicates significance level of $p < .01$ and *** indicates significance level of $p < .001$. Critical values for product-moment correlation (Pearson) coefficient can be found in Weathington et al. (2012).

Appendix 6.24.5 PILOT STUDY 2: Heterotrait-monotrait Ratio of Correlations

	Blame	Revenge desires	Severity
Blame			
Revenge Desires	0.10		
Severity	0.44	0.22	
Stability	0.15	0.2	0.15

Appendix 6.24.6 PILOT STUDY 2: Loading Values and Bootstrapped Confidence Intervals

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Bias	Bootstrapped LLCI (2.50%)	Bootstrapped ULCI (97.50%)
B1 <- Blame	0.79	0.73	0.18	4.49	P<.001** *	- 0.06	0.40	0.92
B2 <- Blame	0.73	0.67	0.25	2.98	P<.001** *	- 0.06	-0.22	0.89
B3 <- Blame	0.94	0.87	0.18	5.22	P<.001** *	- 0.06	0.85	1
R1 <- Revenge Desires	0.92	0.92	0.01	77.04	P<.001** *	0	0.89	0.94
R2 <- Revenge Desires	0.90	0.90	0.02	46.86	P<.001** *	0	0.85	0.93
R3 <- Revenge Desires	0.89	0.89	0.02	47.75	P<.001** *	0	0.85	0.92
R4 <- Revenge Desires	0.90	0.90	0.02	50.98	P<.001** *	0	0.86	0.93
R5 <- Revenge Desires	0.92	0.92	0.01	73.41	P<.001** *	0	0.89	0.94
S1 <- Severity	0.94	0.94	0.02	41.66	P<.001** *	0	0.91	0.96
S2 <- Severity	0.90	0.89	0.03	27.09	P<.001** *	0	0.84	0.93
S3 <- Severity	0.91	0.91	0.02	41.95	P<.001** *	0	0.87	0.94
St <- Stability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: The coding system in appendix 6.8.7 applies to this table and 'St' denotes the item measuring stability perceptions.

Appendix 6.24.7 PILOT STUDY 2: Factorial ANCOVA (Low vs. Medium Empathy of Apology)

Source	Type III Sum of Squares	df	F	Sig.
Corrected Model	81.61	7	7.26	.000***
Intercept	2.74	1	1.71	.19
Severity	15.04	1	9.36	.002**
Blame	.001	1	.000	.98
Stability	15.36	1	9.57	.002**
Gender (Female)	12.30	1	7.66	.006**
Empathy of Apology Condition (Low Vs. Medium)	7.06	1	4.40	.037*
Compensation Condition (Simple Vs. Overcompensation)	18.16	1	11.31	p <.001**
Empathy of the Apology * Compensation Condition	2.53	1	1.57	.21
Error	388.64	242		
Total	1840.08	250		
Corrected Total	470.24	249		

Notes: * indicates that the effect is significant at the p<.05 level of significance. ** indicates that the effect is significant at the p<.01 level. R Squared = .17 (Adjusted R Squared = .15).

Appendix 6.24.8 PILOT STUDY 2: Simple Contrast of Experimental Conditions

Low Vs. Medium Empathy of Apology Simple Contrast		Revenge Desires
Contrast Estimate		- .34
Hypothesized Value		0
Difference (Estimate - Hypothesized)		- .34
Std. Error		.16
Sig.		.037*
95% Confidence Interval for Difference	Lower Bound	- .66
	Upper Bound	- .02
a. Reference category = 1		

Notes: * indicates that the effect is significant at the $p < .05$ level of significance.

Appendix 6.24.9 PILOT STUDY 2: Adjusted Means of Revenge Desires

Low vs. Medium Empathy of the Apology	Simple Compensation vs. Overcompensation	Mean	Standard Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low Empathy	Simple Compensation	2.70 ^a	.18	2.35	3.04
	Overcompensation	1.95 ^a	.17	1.61	2.29
Medium Empathy	Simple Compensation	2.15 ^a	.16	1.83	2.48
	Overcompensation	1.82 ^a	.18	1.47	2.17

a. Covariates appearing in the model are evaluated at the following values: severity = 5.23 (mean value), blame = 6.23 (mean value), Stability = 3.93 (mean value), gender = 1 (female).

Appendix 6.24.10 PILOT STUDY 2: Factorial ANCOVA (Low vs. High Empathy Apology)

Source	Type III Sum of Squares	df	F	Sig.
Corrected Model	80.17	7	6.48	P<.001**
Intercept	3.70	1	2.09	.15
Severity	16.76	1	9.48	.002*
Blame	.30	1	.17	.68
Stability	23.02	1	13.02	P<.001**
Gender (female)	11.66	1	6.60	.011*
Empathy of Apology Condition (Low vs. High)	1.13	1	.64	.43
Compensation Condition (Simple vs. Overcompensation)	18.16	1	10.28	.002**
Empathy of the Apology * Compensation Condition	2.94	1	1.66	.20
Error	434.87	246		
Total	2029.40	254		
Corrected Total	515.04	253		

Notes: * indicates that the effect is significant at the p<.05 level of significance. ** indicates that the effect is significant at the p<.01 level. R Squared = .16 (Adjusted R Squared = .13).

Appendix 6.25 Exclusion Criteria

Exclusion Criterion	Number of Participants Who Met the Exclusion Criterion		
	Study 1	Study 2	Study 3
Participant timed-out on prolific	2	10	3
Participant returned their submission on prolific	6	3	6
Rejected submission	0	0	0
Participant had not bought a hotel trip	12	17	N/A
Participant failed the first attention check (i.e., the adapted Oppenheimer manipulation check)	2	0	1
Participant failed the compensation manipulation check) ⁹	3	N/A	17
Participant failed the second attention check (i.e., the participant reported an incorrect number of apologies) ¹⁰	3	N/A	N/A
Participant failed comprehension check for immediacy of compensation ¹¹	N/A	N/A	11
Inconsistent bottle choice selection ¹²	N/A	N/A	7
Participant failed the “language-on-bottle” attention check ¹³	N/A	N/A	14
Participant did not complete survey but did not return submission or time out.	0	1	1
Inconsistent screening information	0	4	0
Participant guessed study purpose	1	1	8
Total number of participants who met one or more of the above criteria	27	34	63

⁹ This criterion was only applicable to studies 1 and 3.

¹⁰ This criterion was only applicable to Study 1.

¹¹ This criterion was only applied to Study 3. This criterion was included to ensure that the participants understood the experimental manipulation.

¹² This criterion was only applied to Study 3. The inclusion of this additional criterion was necessary, as it indicated a potential lack of attention and involvement in the study. In Pilot Study 1, the scenario was only hypothetical. However, Study 3 required participants to be much more involved as they had a chance of winning a prize. Therefore, an inconsistent bottle choice selection in Study 3 indicated a much more severe lack of attention issue than an inconsistent bottle choice selection in the pilot study.

¹³ Refer to footnote 4.

Appendix 6.26 Demographics of Sample

Variable	Number of Participants in Each Category				
	Pilot Study 1	Pilot Study 2	Study 1	Study 2	Study 3
Age					
18-24	41	82	52	50	27
25-29	34	63	58	60	45
30-39	91	111	105	96	85
40-49	52	58	41	47	92
Over 49	63	72	25	26	147
Prefer not to say	0	1			
Gender					
Male	86	122	58	137	194
Female	192	257	221	142	199
A gender not listed here please specify: Part time as one gender, part time as another	1	2	0	0	0
A gender not listed here please specify: A gender not listed here please specify: answer not provided	1		0	0	0
A gender not listed here please specify: non-binary	0	4	1	0	1
A gender not listed here please specify: no gender identity	0	1	0	0	0
A gender not listed here please specify: NB	0	0	0	0	1
A gender not listed here please specify: I do not believe in gender identity	0	0			1
Prefer not to say	1	1	1	0	0
Income					
£0-499	4	10	7	6	10
£500-999	10	21	10	9	18
£1,000-1,999	65	84	56	67	72
£2,000-2,999	71	102	64	65	112
£3,000-£3,999	55	61	65	54	87
£4,000-4,999	41	27	20	33	34
£5,000 or more	24	45	35	27	43
Prefer not to say	11	37	24	18	20

Appendix 6.27 STUDY 3: Exclusion Criteria for Recruitment Pool

Criterion	Payment of Participant	Number of Participants
Total number of responses obtained in Qualtrics	N/A	754
Timed-out	None	6 (E)
Returned submission	None	48 (E)
Rejected	N/A	0
No prolific-ID provided	N/A	0
Total number of participants who met initial screening criteria	Paid	700
Participant would not participate in a prize-draw for wine	Paid	67 (E)
Participant would not participate in a prize-draw for cash	Paid	27 (E)
Participant met one or more of all criteria for exclusion from Study 3 recruitment pool	N/A	127 (E)
Total number of eligible participants to receive the call to participate in Study 3	Paid	627 (I)

Notes: 'E' indicates that the participant was excluded from the recruitment pool. 'I' indicates that the participant was included in the recruitment pool.

Appendix 7.1 STUDY 1: Heterotrait-monotrait Ratio of Correlations

	Severity	Blame	Inferred Manipulative Intentions of the Manager During Service Recovery from Double Deviation	Anger
Blame	0.50			
Inferred Manipulative Intentions of the Manager During Service Recovery from Double Deviation	0.22	0.23		
Anger	0.67	0.48	0.54	
Revenge Desires	0.25	0.15	0.39	0.40

Appendix 7.2 STUDY 1: Loading Values and Bootstrapped Confidence Intervals

	Estimate	Lower-Level Confidence Interval	Upper- Level Confidence Interval	P-value
R1 <- Revenge Desires	.85	.79	.89	P<.001***
R2 <- Revenge Desires	.92	.88	.95	P<.001***
R3 <- Revenge Desires	.83	.73	.90	P<.001***
R4 <- Revenge Desires	.91	.87	.94	P<.001***
R5 <- Revenge Desires	.88	.83	.92	P<.001***
A1 <- Anger	.90	.87	.93	P<.001***
A2 <- Anger	.77	.70	.83	P<.001***
A3 <- Anger	.83	.77	.87	P<.001***
A4 <- Anger	.88	.84	.91	P<.001***
M1 <- IMI	.39	.25	.53	P<.001***
M2 <- IMI	.87	.80	.92	P<.001***
M3 <- IMI	.87	.79	.93	P<.001***
M4 <- IMI	.46	.31	.59	P<.001***
S1 <- Severity	.89	.84	.92	P<.001***
S2 <- Severity	.85	.79	.89	P<.001***
S3 <- Severity	.84	.77	.89	P<.001***
B1 <- Blame	.69	.54	.83	P<.001***
B2 <- Blame	.65	.50	.78	P<.001***
B3 <- Blame	.86	.76	.93	P<.001***

Notes: 'IMI' denotes inferred manipulative intentions of the manager during service recovery from double deviation. The first and fourth items for inferred manipulative intentions of the manager during service recovery from double deviation were not removed as this would have led to under-identification issues.

Appendix 7.3 STUDY 2: Heterotrait-monotrait Ratio of Correlations Table

	Severity	Inferred Selfish Intentions of the Manager During Service Recovery from Double Deviation	Inferred Benevolent Intentions of the Manager During Service Recovery from Double Deviation	Anger
Inferred Selfish Intentions of the Manager During Service Recovery from Double Deviation	0.25			
Inferred Benevolent Intentions of the Manager During Service Recovery from Double Deviation	0.16	0.49		
Anger	0.72	0.48	0.32	
Revenge Desires	0.37	0.38	0.30	0.57

Appendix 7.4 STUDY 2: Loading Values and Bootstrapped Confidence Intervals

Parameter	Estimate	Lower	Upper	P
S1<---Severity	.87	.79	.92	P<.001***
S2<---Severity	.89	.83	.93	P<.001***
S3<---Severity	.85	.79	.90	P<.001***
SR1<---ISI	.86	.79	.91	P<.001***
SR2<--- ISI	.89	.81	.95	P<.001***
SR3<--- ISI	.58	.48	.67	P<.001***
BR2<--- IBI	.85	.75	.93	P<.001***
BR3<--- IBI	.95	.86	1.04	P<.001***
A1<---Anger	.85	.80	.88	P<.001***
A2<---Anger	.65	.55	.73	P<.001***
A3<---Anger	.72	.63	.79	P<.001***
A4<---Anger	.88	.84	.92	P<.001***
R1<---Revenge Desires	.86	.80	.91	P<.001***
R2<--- Revenge Desires	.88	.83	.92	P<.001***
R3<--- Revenge Desires	.90	.85	.93	P<.001***
R4<--- Revenge Desires	.87	.79	.92	P<.001***
R5<--- Revenge Desires	.89	.85	.93	P<.001***

Notes: 'ISI' denotes inferred selfish intentions of the manager during service recovery from double deviation. 'IBI' denotes inferred benevolent intentions of the manager during service recovery from double deviation. The first benevolent intentions item was removed due to the extremely low loading value of this item on the latent variable. The inferred selfish intentions of the manager for initial service failure and blame variables were removed due to low loading values of the items on their associated constructs. The variables were removed, because the removal of single items would have led the model to be under identified. Also, they were not central to the model, as the selfish intentions for initial service failure was not highly associated with anger and revenge desires, while blame was a control variable. The items with low loadings for anger and selfish intentions during service recovery from double deviation were retained as they were closer to the cut-off of .7 and the variables represented central mediators in the conceptual model. In the marketing literature, researchers report the retention of items with loading values of under .7 and over .5 (see Najafi-Tavani et al., 2018).

Appendix 7.5 STUDY 3: Heterotrait-monotrait Ratio of Correlations

	Anger	Helplessness
Anger		
Helplessness	0.56	
Revenge Desires	0.60	0.38

Appendix 7.6 STUDY 3: Loading Values and Bootstrapped Confidence Intervals

Parameter	Estimate	Lower	Upper	P
H1<---Helpless	.82	.75	.88	P<.001***
H2<---Helpless	.89	.82	.94	P<.001***
H3<---Helpless	.88	.83	.92	P<.001***
H4<---Helpless	.95	.92	.98	P<.001***
A1<---Anger	.90	.87	.93	P<.001***
A2<---Anger	.92	.89	.95	P<.001***
A3<---Anger	.92	.90	.94	P<.001***
A4<---Anger	.93	.91	.95	P<.001***
R1<---Revenge Desires	.81	.73	.87	P<.001***
R2<---Revenge Desires	.91	.85	.94	P<.001***
R3<---Revenge Desires	.89	.80	.94	P<.001***
R4<---Revenge Desires	.91	.86	.95	P<.001***
R5<---Revenge Desires	.90	.85	.93	P<.001***