

**CUSTOMER PERCEPTIONS OF GUARANTEE  
POLICIES AND EMPLOYEE BEHAVIOUR IN  
SERVICE RECOVERY**

**An Investigation of Justice, Signaling and Attributions**

Benedetta Crisafulli

A thesis submitted in partial fulfilment of the requirements of Kingston  
University London for the Degree of Doctoral Philosophy

October 2015

## ABSTRACT

Firms frequently experience service failures, wherein performance is below customer expectations. Seeking to address service failures, firms deliver service recovery. Extant research suggests that service recovery leads to customer satisfaction and repatronage when perceived to be fair (or just). Prior studies emphasise the role played by employees in delivering fair service recovery. By contrast, the literature overlooks situations where organisational policies such as service guarantees pose a constraint to employee recovery efforts. Service guarantees are widely used across several service sectors, and these policies are invoked when services fail. Hence, service guarantees can be employed as recovery strategies along with employee behaviour, both influencing customer perceptions of fairness, post-recovery attitudes and behaviour. Empirical research that explores customer perceptions of service guarantee and employee behaviour used as recovery strategies is, therefore, topical.

This thesis examines the impact of two guarantee terms – payout and ease of invocation – and two types of employee behaviour – concern and communication – on customer post-recovery trust in the firm and in the employee, and in turn, commitment and loyalty. The thesis is theoretically underpinned by three well-established theories – Justice and Attribution Theories from social psychology, and Signaling Theory from information economics. Justice Theory explains how service guarantee and employee behaviour elicit perceptions of recovery fairness. Signaling Theory elucidates how fair service guarantee and employee behaviour influence post-recovery trust, by signaling the trustworthiness of the firm and of employees. The dual lens of Signaling and Attribution Theories explains how a firm's characteristic of reputation for fairness, and customer attribution of inferred motive influence perceptions of service guarantee and employee behaviour employed as recovery strategies.

A scenario-based experiment was conducted in two service contexts – banking and car repair. The data were collected via an online self-completion questionnaire embedding hypothetical scenarios of service failure and recovery. The sample was randomly selected from a consumer panel owned by a reputed UK-based market research agency. The conceptual framework of the thesis was tested by using Partial Least Squares Structural Equation Modeling (PLS-SEM). The moderating effects of firm reputation for fairness and inferred motive were tested by using the product indicator approach in PLS-SEM. Two pre-tests and a pilot study established the ecological validity of findings and the psychometric properties of the measures. In the main study, 658 valid responses were obtained.

Results show that procedural fairness elicited by the ease of invoking the guarantee leads to post-recovery trust in the firm, but distributive fairness elicited by guarantee payout does not. Further, the effects of guarantee payout and ease of invocation are contingent upon the firm's reputation for fairness. Interpersonal and informational fairness elicited by employee concern and communication at the recovery stage lead to post-recovery trust in the employee. The effects of employee treatment and communication on post-recovery trust are contingent upon inferred motive. Post-recovery trust in the firm and in the employee, in turn, impact customer commitment and loyalty. Consistency of results across banking and car repair enhances the generalizability of findings.

This thesis extends knowledge in the domain of service recovery research and broadens understanding of the employed theoretical precepts. *First*, the thesis establishes that service guarantees employed as recovery strategies elicit perceptions of recovery fairness. Such knowledge offers conceptual development of the Justice Theory framework by enhancing understanding of what fair service recovery constitutes.

*Second*, the thesis introduces a new perspective to signaling research that considers how service guarantee and employee behaviour, with related interplay with firm reputation for fairness, signal the trustworthiness of the firm and of employees, and thus influence customer trust. *Third*, the thesis contributes to the understanding of the impact of perceived recovery fairness on trust by distinguishing between two trust referents - firm and employee. *Fourth*, the thesis demonstrates how customer perceptions of service recovery are contingent upon the firm's reputation and inferred motive.

## ACKNOWLEDGEMENTS

This thesis is dedicated to several people who have, in one way or another, contributed to my doctoral work and this journey over the last four years, and to whom I will always be most grateful.

First, a special thanks go to my family, my mum, my dad and my sister, Carmelinda, who have supported me throughout my doctoral studies, bearing with my mood swings and long working hours.

My sincere thanks also go to my supervisory team. I would like to express my deepest gratitude to my Director of Studies, Dr Jaywant Singh. Jay has been a great mentor for me, someone who would not hesitate to share his experience and knowledge, to challenge me, and to invest time in my long-term success. His continuous enthusiasm, encouragement and moral support have been priceless, and have surely contributed to the progress of my studies and my professional development. Thanks to him, over the last four years, have been full of successes.

My sincere thanks also go to my second supervisor, Professor Francesca Dall'Olmo Riley. Francesca has been always present, happy to help by providing useful advice and great support to my professional development. Francesca's patience and attention to detail have been inspiring. I could have not had better mentors.

Besides my supervisory team, I would like to thank Professor Stavros P. Kalafatis, for his insightful comments, for giving me plenty of opportunities to grow as a teacher and as a researcher, and for creating a collegial environment amongst doctoral students. The DocFest has definitely been one of the highlights of my PhD, and of my time at Kingston.

Finally, I would like to thank all my fellow doctoral students in room 428. Special thanks go to MarvYn, Rahul, Taslim, Ehsan, John, Ratnes, Ijay, Pikky, Tina, Francesco, LaToya and many more, for stimulating useful discussions, for sharing enjoyable coffee breaks and stressful moments, for their encouragement and for being themselves. My PhD journey would have been much harder without them.

<b>ABSTRACT.....</b>	<b>i</b>
<b>ACKNOWLEDGEMENTS.....</b>	<b>iii</b>

**TABLE OF CONTENTS**

**PART A: INTRODUCTION AND BACKGROUND TO THE THESIS..... 1**

A.1	Introduction and background.....	2
A.2	The rationale for research.....	7
A.3	Research aim and objectives.....	8
A.4	Proposed contributions to theory and implications for practice.....	12
A.5	Structure of the thesis.....	13

**PART B: REVIEW OF LITERATURE..... 16**

**Chapter B1: Perceived Justice in Service Recovery Research**

B1.1	Introduction and outline of the chapter.....	17
B1.2	Justice theory and its application in service recovery research.....	18
B1.3	Theoretical underpinnings of justice types.....	19
B1.4	Drivers of perceived justice in service recovery.....	25
	B1.4.1 Compensation as organisational recovery effort.....	26
	B1.4.2 Processes as organisational recovery effort.....	27
	B1.4.3 Employee behaviour as organisational recovery effort.....	27
	B1.4.4 Conclusions on the drivers of perceived justice in service recovery.....	28
B1.5	Behavioural outcomes of perceived justice in service recovery.....	30
B1.6	Moderating variables in customer responses to service failure and recovery encounters.....	31
B1.7	Conclusions on perceived justice in service recovery.....	35

**Chapter B2: Signaling in Marketing Research**

B2.1	Introduction and outline of the chapter.....	37
B2.2	Main precepts of signaling theory.....	38
B2.3	Customer responses to marketing signals.....	39
	B2.3.1 Customer responses to guarantee signals.....	44
B2.4	Conclusions on signaling in marketing research.....	49

**Chapter B3: Research on Customer Trust**

B3.1	Introduction and outline of the chapter.....	51
B3.2	Definitions of customer trust in social psychology and marketing..	52
B3.3	Conceptualisation of trust.....	55
B3.4	Measurement of trust in the literature.....	60
B3.5	Measurement of customer trust in service recovery research.....	62
B3.6	Conclusions on customer trust.....	64

**Chapter B4: Overall Conclusions from the Literature Review and Research Gaps**

B4.1	Summary of conclusions from three research streams.....	65
B4.2	Research gaps.....	67

<b>PART C: PROBLEM DEFINITION, CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT.....</b>	<b>74</b>
<b>Chapter C1: Problem Definition</b>	
C1.1 Introduction.....	75
C1.2 Definition of the research problem.....	75
<b>Chapter C2: Research Objectives and Proposed Theoretical Contributions</b>	
C2.1 Introduction.....	78
C2.2 Research objectives and proposed theoretical contributions.....	78
<b>Chapter C3: Conceptual Framework and Hypotheses Development</b>	
C3.1 Introduction.....	84
C3.2 Conceptual framework and hypotheses development.....	85
C3.2.1 The impact of service guarantee and employee behaviour on customer post-recovery trust in the firm (H1-H4).....	85
C3.2.2 The impact of service guarantee on post-recovery trust in the firm (H1-H2).....	85
C3.2.3 The impact of employee behaviour on post-recovery trust in the employee (H3-H4).....	91
C3.2.4 The link between trust in the firm and trust in the employee following service recovery (H5).....	96
C3.2.5 The link between trust and commitment following service recovery (H6-H7).....	98
C3.2.6 The link between trust and loyalty following service recovery (H8-H9).....	102
C3.2.7 The moderating effect of firm reputation for fairness (H10-H13).....	107
C3.2.8 The moderating effect of inferred motive (H14-H17).....	111
<b>PART D: METHODOLOGY.....</b>	<b>117</b>
<b>Chapter D1: Research Paradigm and Design</b>	
D1.1 Introduction and outline of the chapter.....	118
D1.2 Research paradigm.....	119
D1.3 Purpose of the research.....	121
D1.4 Research strategy and design.....	122
D1.4.1 Rationale for the adoption of a scenario-based experiment..	124
D1.4.2 Randomisation.....	125
D1.4.3 Study setting and researcher interference.....	126
D1.4.4 Service contexts under investigation.....	127
D1.4.5 Thesis experimental design.....	128
D1.5 Time horizon.....	131
<b>Chapter D2: Data Collection, Measures and Measurement</b>	
D2.1 Introduction and outline of the chapter.....	132
D2.2 Data collection method in the thesis.....	133
D2.3 Mode of questionnaire administration.....	134
D2.4 Design of the questionnaire.....	136
D2.5 Measures and measurement.....	140
D2.5.1 Operationalization of the research constructs.....	140
D2.6 Approach to measurement of the research constructs.....	148

<b>Chapter D3: Sampling, Error Minimisation and Analytical Methods</b>	
D3.1	Introduction and outline of the chapter..... 150
D3.2	Unit of analysis..... 151
D3.3	Sampling design..... 151
D3.4	Sources of error..... 158
D3.5	Analytical techniques..... 161
D3.5.1	Analysis of main effects..... 161
D3.5.1	Analysis of moderating effects..... 162
<b>PART E: DATA ANALYSIS AND RESULTS..... 165</b>	
<b>Chapter E1: Analysis and Results from Pre-Tests</b>	
E1.1	Introduction..... 166
E1.2	Analysis and results from pre-test one..... 166
E1.3	Analysis and results from pre-test two..... 169
<b>Chapter E2: Analysis and Results from Pilot Study</b>	
E2.1	Purpose of the pilot study ..... 171
E2.2	Manipulation and confound checks..... 171
E2.3	Elicitation of justice perceptions..... 172
E2.4	Measurement model assessment..... 173
E2.5	Assessing the reliability of research constructs..... 174
E2.5.1	Test-retest reliability..... 174
E2.5.2	Alternative forms of reliability..... 174
E2.5.3	Internal consistency reliability..... 175
E2.5.4	Results from reliability tests..... 175
E2.6	Assessing the validity of research constructs..... 177
E2.6.1	Content validity..... 177
E2.6.2	Criterion validity..... 178
E2.6.3	Construct validity..... 178
E2.6.4	Results from validity tests..... 179
E2.7	Testing the second order construct of trust..... 181
E2.8	Preliminary inspection of structural paths..... 182
<b>Chapter E3: Analysis and Results from Main Study</b>	
E3.1	Purpose of the main study..... 184
E3.2	Preliminary checks..... 184
E3.2.1	Elicitation of justice perceptions..... 184
E3.2.2	Assessment of common method variance..... 184
E3.3	Measurement model assessment..... 187
E3.3.1	Reliability and validity of reflective constructs..... 187
E3.3.2	Multicollinearity tests..... 189
E3.3.3	Reliability and validity of second order constructs..... 191
E3.4	Structural model assessment..... 192
E3.5	Results from the structural model assessment..... 194
E3.5.1	Predictive accuracy and relevance of the model..... 194
E3.5.2	Effect size..... 195
E3.5.3	Size and significance of structural paths..... 197
E3.5.4	Selected approach to testing moderation..... 198
E3.5.5	Moderating effect of firm reputation for fairness..... 200
E3.5.6	Moderating effect of inferred motive..... 205
E3.6	Summary of data analysis and results..... 209

<b>PART F: DISCUSSION AND CONCLUSIONS, IMPLICATIONS FOR THEORY AND PRACTICE, FURTHER RESEARCH.....</b>	<b>212</b>
<b>Chapter F1: Discussion of Findings</b>	
F1.1 Recap of research objectives.....	213
F1.2 Discussion of research findings.....	215
F1.2.1 Distributive justice and post-recovery trust in the firm.....	217
F1.2.2 Procedural justice and post-recovery trust in the firm.....	220
F1.2.3 Interpersonal justice and post-recovery trust in the employee.....	222
F1.2.4 Informational justice and post-recovery trust in the employee.....	224
F1.2.5 Relationship between two types of trust.....	226
F1.2.6 Post-recovery trust and commitment.....	227
F1.2.7 Post-recovery trust and loyalty.....	229
F1.2.8 Moderating effect of firm reputation for fairness.....	231
F1.2.9 Moderating effect of inferred motive.....	234
<b>Chapter F2: Thesis Contributions to Theory</b>	
F2.1 Introduction.....	238
F2.2 Contributions to theory.....	239
<b>Chapter F3: Implications for Service Managers and Policy Makers</b>	
F3.1 Introduction.....	248
F3.2 Implications for service managers.....	248
F3.3 Implications for policy makers.....	253
<b>Chapter F4: Thesis Limitations and Directions for Future Research</b>	
F4.1 Introduction.....	256
F4.2 Broadening the research scope.....	256
F4.3 Enhancing the generalizability of research findings.....	258
F4.4 Understanding how customers interpret service recovery encounters.....	260
F4.5 Assessing customer perceptions of service recovery over time.....	260
<b>REFERENCES.....</b>	<b>261</b>
<b>APPENDICES.....</b>	<b>A-L</b>
APPENDIX A: The research process	
APPENDIX B: Literature on perceived justice in service recovery	
APPENDIX C: Literature on signaling in marketing research	
APPENDIX D: Sample of existing service guarantee policies	
APPENDIX E: Questionnaire	
APPENDIX F: List of questionnaire items	
APPENDIX G: Socio-demographic characteristics of UK population	
APPENDIX H: Outputs from pilot study	
APPENDIX I: Outputs from main study	
APPENDIX L: Approaches to testing moderation in PLS-SEM	



**LIST OF FIGURES AND TABLES****LIST OF FIGURES**

Figure A1.1	Conceptual framework for research.....	11
Figure A1.2	The research process framework.....	Appendix-A1
Figure C3.1	Hypothesised effect of service guarantee on post-recovery trust in the firm.....	86
Figure C3.2	Hypothesised effect of employee behaviour on post-recovery trust in the employee.....	91
Figure C3.3	Hypothesised link between post-recovery trust in the firm and post-recovery trust in the employee.....	96
Figure C3.4	Hypothesised link between post-recovery trust and commitment.....	98
Figure C3.5	Hypothesised link between post-recovery trust and loyalty..	102
Figure C3.6	Conceptual framework (main effects model).....	106
Figure C3.7	Hypothesised moderating effect of firm reputation for fairness.....	107
Figure C3.8	Hypothesised moderating effect of inferred motive.....	111
Figure C3.9	Conceptual framework (interaction effects model).....	115
Figure D1.1	Research design framework – Research Design.....	118
Figure D1.2	A classification of experimental designs.....	123
Figure D2.1	Research design framework – Measurement and Data Collection.....	132
Figure D2.2	Questionnaire design process.....	136
Figure D2.3	Reflective and formative indicators.....	148
Figure D3.1	Research design framework – Data analysis.....	150
Figure D3.2	Sampling design process.....	151
Figure D3.3	A classification of sampling techniques.....	154
Figure D3.4	Age distribution of the UK population.....	Appendix-G1
Figure D3.5	Potential sources of error.....	158
Figure E3.1	Unmeasured latent factor approach to CMV.....	Appendix-I3
Figure E3.2	Model A – Effects of perceived justice elicited by service guarantee and employee behaviour on post-recovery trust (main effects model).....	192
Figure E3.3	Model B – Conceptual framework (Model A + moderating effects: interaction effects model).....	193
Figure E3.4	Product indicator approach to testing moderation.....	199
Figure E3.5	Conditional effects of distributive justice on trust in the firm at three levels of firm reputation for fairness.....	203
Figure E3.6	Conditional effects of procedural justice on trust in the firm at three levels of firm reputation for fairness.....	203
Figure E3.7	Conditional effects of interpersonal justice on trust in the employee at three levels of firm reputation for fairness.....	204
Figure E3.8	Conditional effects of interpersonal justice on trust in the employee at three levels of inferred motive.....	206
Figure E3.9	Conditional effects of informational justice on trust in the employee at three levels of inferred motive.....	207
Figure E3.10	Conditional effects of procedural justice on trust in the firm at three levels of inferred motive.....	208
Figure F1.1	Structural model results.....	216

**LIST OF TABLES**

Table B1.1	Conceptualisation of justice in service recovery research...	24
Table B1.2	Justice related to organisational recovery efforts.....	29
Table B1.3	Research on the outcomes of perceived justice.....	Appendix-B1
Table B2.1	Existing classifications of marketing signals.....	Appendix-C1
Table B2.2	Customer responses to signaling in marketing.....	43
Table B2.3	Research mentioning service guarantee as a signal.....	48
Table B2.4	Summary of research examining multiple signals.....	Appendix-C2
Table B3.1	Definitions of trust in social psychology and marketing research.....	54
Table B3.2	Customer trust in marketing research.....	59
Table D1.1	Four research paradigms in management research.....	120
Table D1.2	Between-subjects versus within-subjects' designs.....	125
Table D1.3	Differences between field and laboratory experiments.....	127
Table D1.4	Summary of the thesis experiments.....	129
Table D1.5	Longitudinal versus cross-sectional research designs.....	131
Table D2.1	A comparative evaluation of questionnaire administration modes.....	135
Table D2.2	Quality assessment of borrowed scales.....	146
Table D2.3	Summary of scales borrowed for the thesis.....	147
Table D3.1	The demographic characteristics of GMI international panel.....	153
Table D3.2	The socio-demographic characteristics of the UK population.....	Appendix-G2
Table D3.3	The socio-demographic characteristics of the sample.....	156
Table D3.4	Additional characteristics of the sample.....	157
Table E1.1	Manipulation check results – Pre-test One.....	167
Table E1.2	Manipulation check results – Pre-test Two.....	170
Table E2.1	Manipulation check results – Pilot study.....	Appendix-H1
Table E2.2	Elicitation of justice perceptions – Pilot study.....	172
Table E2.3	Reliability and validity results – Pilot study.....	176
Table E2.4	Indicator reliability.....	Appendix-H2
Table E2.5	Discriminant validity results – Pilot study.....	180
Table E2.6	Cross-loadings – Banking.....	Appendix-H3
Table E2.7	Cross-loadings – Car Repair.....	Appendix-H4
Table E2.8	HTMT ratio.....	Appendix-H5
Table E2.9	Confidence intervals.....	Appendix-H6
Table E2.10	Reliability and validity of HOCs – Pilot study.....	182
Table E2.11	Preliminary inspection of the structural paths.....	182
Table E3.1	Elicitation of justice perceptions.....	Appendix-I1
Table E3.2	Statistical remedies to detect common method variance.....	Appendix-I2
Table E3.3	Results from UMLF approach – Banking.....	Appendix-I4
Table E3.4	Results from UMLF approach – Car Repair.....	Appendix-I5
Table E3.5	Reliability and validity results – Main study.....	187
Table E3.6	Indicator reliability.....	Appendix-I6
Table E3.7	Discriminant validity results.....	188
Table E3.8	Cross-loadings – Banking.....	Appendix-I7
Table E3.9	Cross-loadings – Car Repair.....	Appendix-I8
Table E3.10	Discriminant validity – HTMT ratio.....	Appendix-I9
Table E3.11	Confidence intervals.....	Appendix-I10
Table E3.12	Multicollinearity test results.....	Appendix-I11
Table E3.13	Reliability and validity of HOCs – Main study.....	191

## List of Figures and Tables

---

Table E3.14	Predictive accuracy and relevance estimates.....	195
Table E3.15	Effect size for individual constructs.....	196
Table E3.16	Path coefficients and t-values.....	198
Table E3.17	Advantages and disadvantages of approaches to testing moderation in PLS-SEM.....	Appendix-L1
Table E3.18	R-square values and effect size.....	200
Table E3.19	Path coefficients and t-values.....	201
Table E3.20	R-square values and effect size.....	205
Table E3.21	Path coefficients and t-values.....	206
Table F1.1	Summary of research findings.....	215

# **PART A**

## Introduction and Background to the Thesis

**PART A: INTRODUCTION AND BACKGROUND TO THE THESIS**

*OUTLINE OF PART A*

The process of conducting research commonly starts with a definition of the broad research area and of the research purpose. In business studies, the purpose of research is often to investigate a social phenomenon and/or an issue of managerial relevance and of interest to the researcher. Consequent implications for managerial practice and for theory advancements establish the rationale for conducting the research. Based on the purpose of the research, research aim and objectives are set, and methodological decisions are undertaken. The above process is in line with best practices in conducting business research, as illustrated by Sekaran and Bougie (2013).

Consistent with best practices, Part A aims at explaining the rationale for conducting the research in this thesis. The outline of Part A is as follows. In Section A.1, the broad research area is presented. In Section A.2, the rationale for the research is discussed. The rationale for the research emerges from an extensive examination of secondary sources of information, including company websites, industry reports and a critical review of academic literature in the research domain of interest. In Sections A.3 and A.4, the research aim and objectives are presented, along with the proposed contributions to theory and implications for practice. Section A.5 concludes Part A by providing an outline structure of the thesis.

## A.1 INTRODUCTION AND BACKGROUND

There is increasing recognition that services have taken the centre stage in several national economies. An estimate by the International Monetary Fund (2014) indicates that the services sector contributes between 70 and 89 per cent to the economies of the United States, Canada, UK, France and several other European countries. The context in which service firms operate is undergoing fundamental changes. The above changes create both opportunities and threats for service firms. For instance, advances in information technology have introduced opportunities for service firms to adopt new ways of interacting with customers and to introduce service innovations. Customers are more knowledgeable about service offerings than in the past, and easily defect when a service does not meet their expectations. Consequently, there are demands on service managers to raise the bar of quality, and to deliver against customer expectations.

Scholars have long been interested in issues related to customer expectations, the service delivery and resultant service quality perceptions (e.g., Parasuraman, Zeithaml and Berry, 1985; Rust, Zahorik and Keiningham, 1995; Berry and Parasuraman, 1997). Linked to the idea that customers have expectations about the service delivery is the concept of *service failure*, which entails any service-related problems that occur during the service delivery (Maxham, 2001). Customers are satisfied when the service delivery meets or exceeds expectations, but complain when the service delivery is below expectations. Service research often refers to service failures as ‘moments of truth’ to denote situations where the service delivery fails and the customer-firm relationship can be undermined (e.g., Grönroos, 1990; Tax and Brown, 1998).

When service failures occur, some customers may ignore these events and avoid investing time and effort to complain (Antón, Camarero and Carrero, 2007). Other customers may lodge a complaint in order to obtain redress for the inconvenience. In response, firms endeavour to deliver service recovery, which entails any efforts aimed at rectifying the service failure (Andreassen, 2001). Service failure, recovery and complaining behaviour are, therefore, intrinsically linked issues. Scholars suggest that, amongst other service-related issues, service recovery and complaint handling merit investigation for advancement of knowledge and for informing managerial decisions in the area of service management (e.g., Fang, Luo and Jiang, 2013; Joireman *et al.*, 2013; Ro and Olson, 2014). The focus of this thesis is on customer response to service failure and recovery experiences. The discussion below demonstrates how issues related to

service failure and recovery are central to contemporary service management and services-related academic research.

*Service Recovery in Business Practice*

Delivering error-free services is challenging and often unattainable for service firms. Service firms are particularly prone to failures. The inherent characteristics of intangibility and heterogeneity of services contribute to the complexity of delivering error-free services, as pointed out by several scholars (e.g., Grönroos, 1990; Ostrom and Iacobucci, 1995; Chebat and Slusarczyk, 2005; Cambra-Fierro, Melero-Polo and Sese, 2015). In line with the above view, service failures are recognised as persistent events and '*an unfortunate reality of service firms*' (Joireman *et al.*, 2013, p. 315). Examples of frequent service failures include overcharges, delayed service delivery, impolite employee and incorrect order fulfilment.

The number of customers who complain following service failures has seen a sharp increase in recent times. The above is evidenced by a 2014 report published by the UK Ombudsman Services revealing that the number of complaints from UK consumers has steadily increased over the last few years and across all service sectors, with banking, energy, telecommunications and travel being the worst affected (Ombudsman Services, 2014). The above phenomenon is amplified by the growth of organisations such as Which? (a UK-based company that promotes informed consumer choice of products/services), that are raising customer awareness of their rights to complain, and of the processes to follow in lodging a complaint.

In response to customer complaints, firms can endeavour to deliver service recovery. The UK Ombudsman Services Report suggests that organisational recovery efforts are currently not aligned with the growing share of customer complaints (Ombudsman Services, 2014). Firms realize the need to respond to complaints, yet current practices in complaint handling and service recovery management are often designed and implemented on an ad hoc basis, and reveal inefficacious. The inefficacy of current practices in service recovery management is reflected in satisfaction indices, such as the UK Customer Satisfaction Index (an index of satisfaction of UK consumers across 13 sectors), showing that customer satisfaction with services has decreased from 78.2 per cent in 2013 to 77 per cent in 2014 due to unsatisfactory complaint handling (Institute of Customer Service, 2014).

Issues related to unsatisfactory complaint handling are topical in the energy and banking sectors, as evidenced by media reports (BBC News, 2015). For instance, in the energy sector, customer complaints related to billing are on the increase. Similar issues concern some of the largest energy suppliers in the UK. In this respect, a Npower representative recently stated: *"We have been working hard to improve our overall customer service. Even so, the complaint rate was up from 2013 when it stood at 25,100 per 100,000 customers"*. In the banking sector, a report by YouGov-Cambridge (2013) indicates that poor customer service and perceptions that banks exploit their relationships with customers are amongst the commonly cited reasons why customers are unwilling to trust banking institutions.

Given the above background, there is increasing recognition of the need to introduce regulation on how firms should set their policies in relation to complaint handling and service recovery management (BBC News, 2015). In banking, the Financial Services Authority (FSA) has introduced the Treating Customers Fairly (TCF) initiative. This initiative sets guidelines on complaint handling across UK banking institutions. Amongst the guidelines, the FSA indicates that banks should design their policies in such a way that the processes of lodging a complaint and claiming redress is made easy for customers (Financial Services Authority, 2007).

Service guarantees are widely used organisational policies. Through service guarantees, firms set guidelines on the process of handling customer complaints, and on the compensation offered to customers. For instance, in their customer service guarantee, The Co-Operative Bank sets compensation at £25 for any breach of the guarantee and offers a dedicated Customer Services department dealing with customer claims of the guarantees. Financial compensation represents a fundamental aspect of service guarantee policies. This is evidenced by the attention that policy makers direct towards setting regulation of how firms compensate customers following service failures. In the transport industry, for instance, recent policy changes have urged transport operators such as Virgin Trains to introduce automatic compensation to delayed passengers (BBC News, 2015). The above change has raised the bar of fair compensation following transport delays. Following the example of Virgin Trains, government is now encouraging other trains operators to implement similar changes. With the exceptions of the transport industry, regulation in the areas of complaint handling and service recovery management is still nascent in several service industries. Empirical research in this area is, therefore, contemporary and merits further attention.



*Service Recovery Research: A Synopsis*

The importance of the services sector in national economies is accompanied by a growing amount of service-related academic research. In a review of research priorities in service research, Ostrom *et al.* (2015) note that a number of diverse academic fields increasingly direct attention towards investigating issues related to services from the perspective of their own discipline. The above growth of services inevitably raises numerous questions that have relevance for theoretical advancements, and for practice in service management. These include, for instance, questions related to customer experience and well-being. Further research that answers similar questions is warranted. Hence, the investigation of service-related issues is topical.

There are several research streams within the broad domain of service research, each stream addressing different questions. Examples include the streams of research on service innovation, value co-creation, service design, and service recovery. In the domain of service recovery research, issues related to service failure and recovery, and consumer psychological processes following unsatisfactory services are investigated. The relevance of service recovery to practice and theory is reflected in a large body of academic research in the area, which has developed over the last 20 years, or so. Over the years, research in this domain has progressed from focusing on the types of organisational efforts available to service firms in order to endeavour recovery to advancing knowledge of the psychological processes underlying customer responses to service recovery. In the body of literature focusing on customer psychological processes of evaluating service recovery, the concept of *justice* (or fairness) has received considerable attention.

Extant service recovery research suggests that customers evaluate the justice rendered by the firm during service recovery encounters (e.g., Tax, Brown and Chandrashekar, 1998; Smith, Bolton and Wagner, 1999; Roschk and Kaiser, 2013). Perceptions of recovery fairness, in turn, lead to customer satisfaction and loyalty (e.g., McCollough, Berry and Yadav, 2000; Maxham and Netemeyer, 2002). The above studies emphasise the pivotal role played by service employees in delivering fairness through compensation, by providing a timely resolution of the problem and by showing empathy. Indeed, the behaviour of employees is crucial during interactions with customers. However, the terms set in organisational policies often pose a constraint to employee recovery efforts in relation to compensation and recovery processes.

Service guarantees exemplify organisational policies frequently used by companies across sectors, from hospitality to banking and professional services (e.g., Co-operative Bank's guarantee on customer service, Royal Mail's guarantee on delivery services). Extant research examines the impact of service guarantee policies on customer preferences (McDougall, Levesque and VanderPlaat, 1998) and perceptions of risk (Wirtz, Kum and Lee, 2000; Wirtz and Kum, 2001), cheating intentions (Wirtz and Kum, 2004) as well as purchase decisions (Jin and He, 2013), and the role of service guarantees as signals of quality (McCollough and Gremler, 2004). By contrast, research examining the role of service guarantees in a recovery context is limited to a handful of conceptual and even fewer empirical studies. In a conceptual study, for instance, Kandampully and Butler (2001) argue that service recovery implemented through service guarantees can reduce negative word of mouth. Further, Björilin Lidén and Edvardsson (2003) and Björilin Lidén and Skålén (2003) note that customers have concerns about the fairness of service guarantees, and are suspicious of guarantee policies introduced in an effort to increase customer acquisition rates. The above studies, however, do not examine customer responses to service recovery implemented through the guarantees.

Amongst the empirical studies that investigate the role of guarantees in service recovery, Van Vaerenberg, De Keyser and Larivière (2014) explain how employee recovery efforts shape customer intentions to invoke guarantee policies. The authors treat service recovery and guarantees as two distinct strategies, and their impact on justice perceptions is overlooked. Customer perceptions of justice are considered by McQuilken, McDonald and Vocino (2013). The authors examine perceived justice related to recovery compensation set in guarantee policies and employee behaviour, but disregard perceived justice related to the processes of invoking the guarantee. Along with the compensation set in the guarantee, invocation processes represent an important dimension of guarantee policies, as first pointed out by Hart (1988), later by Berman and Mathur (2014) and Meyer, Gremler and Hogueve (2014).

Service guarantees are claimed when services fail (Björilin Lidén and Skålén, 2003; Berman and Mathur, 2014). Hence, these policies serve as recovery strategies. Through service guarantees, companies pledge compensation and set the procedures for claiming the compensation (i.e. guarantee terms). The guarantee terms indicate the justice rendered to the customer, and in turn, *signal* the trustworthiness of the firm. Given the above background, gaining an understanding of customer perceptions of

fairness related to service recovery implemented through the guarantee, and subsequent outcomes, is important for conceptual advancements in service recovery research. In conclusion, the above discussion provides the contextual background to this thesis and a foundation for defining the rationale for conducting the research. The rationale for the research is discussed below.

## **A.2 THE RATIONALE FOR RESEARCH**

As discussed in Section A.1, complaint handling and service recovery are pressing issues for service firms. Service failures occur frequently, and these events can cause customer defection and negative word of mouth. When services fail and customers complain, firms can attempt service recovery. Effective service recovery is fundamental to restoring customer satisfaction, and to fostering intentions to show repatronage and to generate positive word of mouth (e.g., Estelami, 2000; Maxham and Netemeyer, 2002, 2003; Orsingher, Valentini and de Angelis, 2010). Nonetheless, existing business practices in the areas of complaint handling and service recovery management reveal inefficient, as evidenced by media reports and industry reports (BBC News, 2015; Institute of Customer Service, 2014). Firms across all service sectors are unable to cope with the growing number of customer complaints (Ombudsman Services, 2014). Concurrently, policy makers recognise the need to introduce regulation on how firms design and implement policies related to complaint handling and service recovery management.

Scholars have suggested the necessity to advance knowledge on how organisational policies are best designed and implemented in service recovery encounters (Berman and Mathur, 2014). Service guarantee policies are highly relevant to service failure and recovery encounters, given that these policies are invoked when services fail. In recovery situations, service guarantees are, therefore, implemented as recovery strategies. Through service guarantees, the problem caused by the service failure is resolved and compensation is paid out to customers (e.g., Kandampully and Butler, 2001; McQuilken *et al.*, 2013).

The prevalence of service guarantees has spurred conceptual and empirical research. Prior research examines the characteristics of service guarantees and the impact of these policies on a number of customer outcomes, including perceptions of risk, purchase and cheating intentions (e.g., McDougall *et al.*, 1998; Wirtz *et al.*, 2000; Wirtz and Kum, 2001; Wirtz and Kum, 2004; Wu *et al.*, 2012; Jin and He, 2013). So

far, only two studies have examined the impact of service guarantees on customers in a recovery context (see discussion on page 7, McQuilken *et al.*, 2013; Van Vaerenberg *et al.*, 2014). Along with guarantee policies, employee recovery efforts are relevant to shaping customer perceptions about fairness – a crucial aspect of customer evaluations at the recovery stage (e.g., Tax *et al.*, 1998; Smith *et al.*, 1999; del Río-Lanza, Vázquez-Casielles and Díaz-Martín, 2009; Roschk and Kaiser, 2013). Hence, the interplay between service guarantee and employee behaviour is important in explaining customer responses to service recovery encounters.

Moreover, prior service recovery research suggests that factors external to the recovery encounter can either enhance or hinder service recovery success. For instance, information about the reputation of the firm can influence customer evaluations of service guarantees, as evidenced in a number of studies (e.g., Wirtz *et al.*, 2000; Wu *et al.*, 2012). Similarly, in the process of evaluating guarantees, customers tend to infer the motives underlying the firm's decision to offer these policies (such inferences are also known as 'inferred motive'). Such inferences influence customer fairness perceptions, as evidenced in prior research on price fairness and price guarantees (e.g., Campbell, 1999; Kukar-Kinney, Xia and Monroe, 2007). The above two factors are relevant in explaining customer perceptions of recovery fairness when a service guarantee is employed as recovery strategy. Notwithstanding, research that investigates the role of firm reputation and inferred motive in influencing customer responses to service recovery is sparse.

Research that fills the above gaps can lead to advancements in service recovery research and inform the decisions of policy makers in relation to introducing regulation on how firms can handle customer complaints. The above viewpoint is shared by a number of scholars who contend that service guarantees represent an important recovery strategy, and call for research that investigates the role of service guarantees as recovery strategies (e.g., Callan and Moore, 1998; Björilin Lidén and Edvardsson, 2003; Björilin Lidén and Skálén, 2003; Hogreve and Gremler, 2009; Berman and Mathur, 2014). The above rationale for advancing knowledge informs the aim and objectives of the research conducted in this thesis, as discussed in the section below.

### **A.3 RESEARCH AIM AND OBJECTIVES**

As discussed in Section A.2, organisational policies such as service guarantees can pose a constraint to employee recovery efforts, and thus influence customer

responses to service recovery encounters. Service guarantees are commonly used in marketing practice, and invoked when services fail. Therefore, guarantee policies can be employed as recovery strategies. Further, employee behaviour and factors external to the recovery encounter can shape customer responses to service recovery implemented through the guarantee. Research that addresses how recovery is best implemented through service guarantees, as well as the interplay between service guarantee, employee behaviour and factors external to the recovery encounter, is scant.

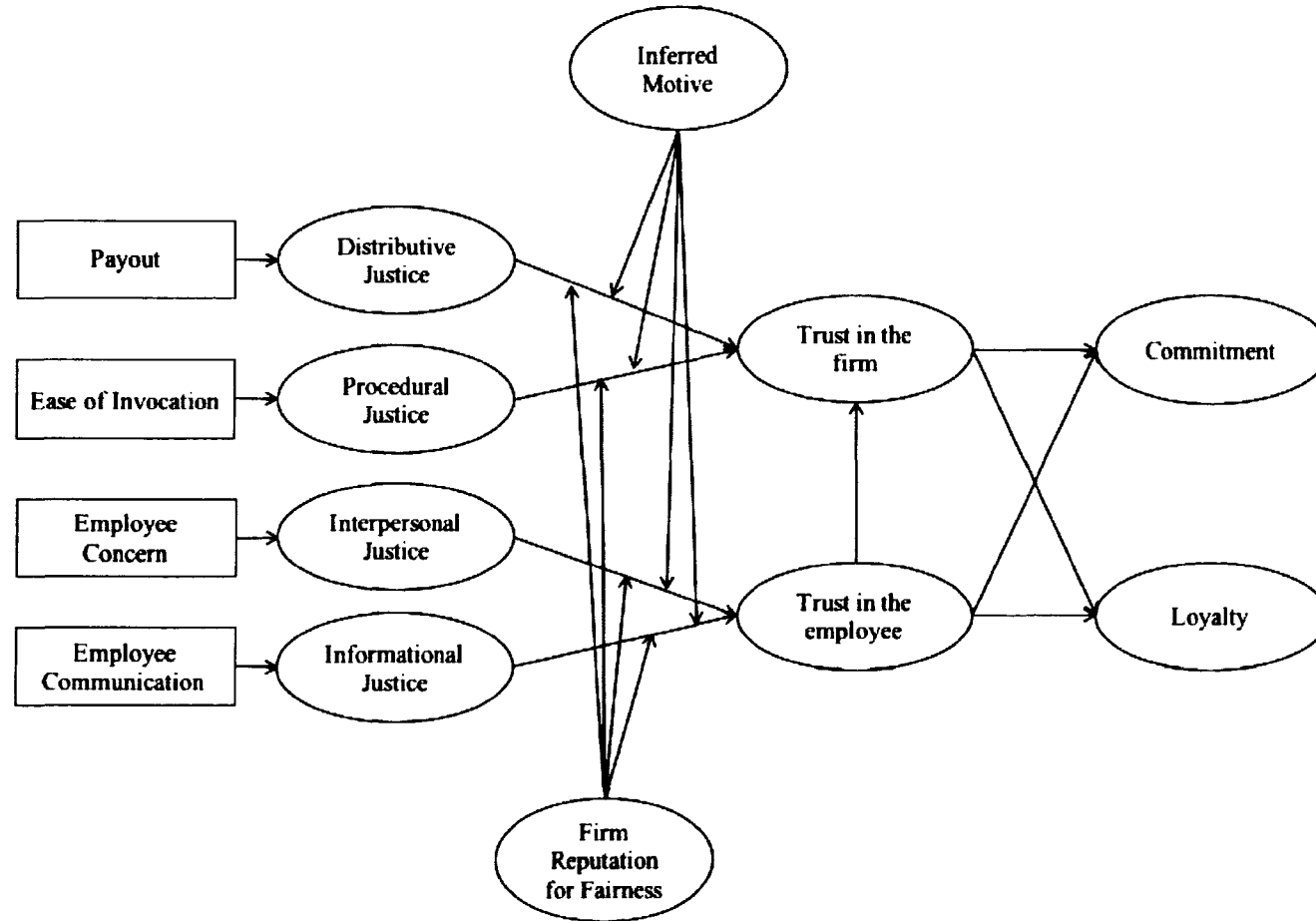
The overall aim of the research conducted in this thesis is to test the impact of service guarantees, employee behaviour and factors external to the recovery encounter on customer perceptions of service recovery, and concurring attitudes and intentions. In order to fulfil the above aim, this thesis sets the following four objectives:

1. To examine how service guarantee and employee behaviour employed as recovery strategies elicit customer perceptions of justice;
2. To investigate how perceived justice elicited by service guarantee and employee behaviour at the recovery stage influences customer post-recovery trust, and in turn, commitment and loyalty;
3. To investigate how customers differentiate between firm and employee when forming trust following service recovery;
4. To examine how two factors external to the recovery encounter - firm reputation for fairness and inferred motive – influence the effect of service recovery implemented through service guarantee and employee behaviour on post-recovery trust.

In order to fulfil the above aim and objectives, a conceptual framework that accounts for the role of service guarantee, employee behaviour, firm reputation for fairness and inferred motive is developed and empirically tested. The conceptual framework draws upon three well-established theories – Signaling Theory from information economics (Spence, 1973), Justice Theory (Homans, 1961) and Attribution Theory (Heider, 1958) from social psychology. The integration of the three theories follows Ostrom *et al.*'s (2015) suggestions to further research that offers a multidisciplinary view on issues related to service management. In order to test the conceptual framework, experimental research and partial least squares structural equation modeling (PLS-SEM) analytical technique are used. The conceptual

framework is presented in Figure A1.1 below (see page 11). The framework emerges from the literature review, the identified research gaps (Part B of this thesis), and it addresses the research objectives set out in this section. The theoretical rationale for the relationships hypothesised in the framework is discussed in Part C of this thesis.

Figure A1.1 Conceptual framework for research



#### **A.4 PROPOSED CONTRIBUTIONS TO THEORY AND IMPLICATIONS FOR PRACTICE**

This thesis aims to contribute to knowledge in the domains of Justice, Signaling and Attribution Theories, as summarised below:

- a. This thesis expands prior work in service recovery research by establishing the relevance of service guarantees as recovery strategies. Notably, by investigating customer perceptions of fairness of service guarantees, this thesis confirms the relevance of the Justice Theory framework in explaining customer perceptions of service guarantees employed as recovery strategies.
- b. This thesis advances the conceptualisation of service guarantee and employee behaviour as dual signals of trustworthiness. The above conceptualisation explains the relationships between fairness elicited by service guarantee and employee behaviour, and post-recovery trust (in the firm and in the employee).
- c. This thesis introduces a novel perspective to Signaling Theory that affirms the signaling function of service guarantee, employee behaviour and firm reputation for fairness at the recovery stage. In addition, the thesis provides empirical evidence on how the interplay between the above three signals influences customer trust, and in turn, repurchase intentions.
- d. This thesis introduces a key cognition – inferred motive – to the study of customer responses to service recovery encounters. By investigating customer inferences about the firm's and employees' motives, the thesis introduces an original perspective to Attribution Theory that considers customer causal attributions for service recovery.

Further, this thesis seeks to inform managerial decisions in the areas of complaint handling and service recovery management, as summarised below:

- a. By investigating the role of service guarantees as recovery strategies, this thesis provides insights on whether and how service guarantees should be designed and implemented at the recovery stage. In addition, by exploring the interplay between service guarantees and employee behaviour, this thesis clarifies the importance of employee training and organisational policies in retaining customers following service failures.
- b. By examining the signaling function of service guarantee and employee behaviour, this thesis introduces service managers to the idea of signaling



trustworthiness through service recovery. In particular, this thesis provides insights on how guarantee policies and employee actions at the recovery stage can be leveraged as signals.

- c. By examining firm reputation for fairness, this thesis offers insights on how perceptions about the firm influence customer responses to employee behaviour and service guarantees employed as recovery strategies. Notably, such insights can help managers to decide whether to invest in reputation-building activities.
- d. By examining the role of inferred motive, this thesis provides nuanced understanding of customer responses to service recovery. Specifically, the thesis raises the awareness of service managers regarding the efficacy of current practices in the area of service recovery management.

In order to conclude Part A, the thesis structure is presented below.

### **A.5 STRUCTURE OF THE THESIS**

This thesis follows best practices in conducting business research. In doing so, the thesis draws on the research process framework advocated by Sekaran and Bougie (2013) and related guidelines on how to conduct business research in a systematic manner (see Figure A1.2 in Appendix A). The key milestones in the research process framework – rationale for the research, literature review, hypotheses generation, method and analysis – inform the way this thesis is structured. The thesis consists of six parts (Parts A-F), each part including one or multiple chapters. The outline of Parts A-F is as follows:

**Part A: Introduction and Background to the Thesis** – This part comprises one chapter only discussing the broad area of the research, the purpose of the research, the research aim and objectives, the expected contributions to theory and implications for practice.

**Part B: Review of the Literature** – This part comprises four chapters (Chapters B1-B4). In these chapters, three streams of research – perceived justice in service recovery, signaling in marketing research and research on customer trust – are critically reviewed. This part ends with a discussion of the research gaps emerging from the critical review of the literature.

**Part C: Problem Definition, Conceptual Framework and Hypotheses Development**

– This part comprises three chapters (Chapters C1-C3). In these chapters, the research problem emerging from the review of the literature is discussed. Further, the conceptual framework of the research and the research hypotheses are developed.

**Part D: Methodology** – This part consists of three chapters (Chapters D1-D3). The chapters include a discussion of the research design, measures and measurement, sampling, data collection and analysis employed in this thesis.

**Part E: Data Analysis and Results** – This part includes three chapters (Chapters E1-E3). The chapters provide a discussion of the analysis and results from two pre-tests, a pilot study and the main study conducted as part of the research.

**Part F: Discussion and Conclusions** – This part comprises four chapters (Chapter F1-F4). In the above chapters, the research findings are discussed in the light of extant research on perceived justice in service recovery, signaling and customer trust. Further, the thesis implications for theory, practice and the policy makers are discussed, along with limitations and directions for future research.

# **PART B**

## **Review of Literature**

## **PART B: REVIEW OF LITERATURE**

### *OUTLINE OF PART B*

The critical review of the literature pertinent to the research area of interest represents a fundamental step in the process of conducting business research. The review of the literature can have different purposes, depending on the approach selected for the research. When an inductive approach is followed, the review of the literature enables the researcher to familiarise with extant knowledge and gain some preliminary insights on the topic of interest. When a deductive research approach is followed, the review of the literature aims at the identification of research gaps, and at informing the development of a theoretical framework for the research.

Given the research objectives set out in Part A, this thesis follows a deductive approach. Therefore, the review of the literature in Part B aims at identifying gaps in the extant knowledge. In Part B, three main streams of research are reviewed – perceived justice in service recovery research, signaling in marketing research, and research on customer trust. Within each of the above streams of research, findings, methodological and conceptual issues of prior work are discussed.

The outline of Part B is as follows:

- **Chapter B1** includes a critical review of extant service recovery research focusing on the concept of perceived justice and its measurement, and on the drivers, outcomes and moderators of perceived justice.
- **Chapter B2** incorporates a critical review of marketing research employing the perspective from Signaling Theory. This chapter focuses on the tenets of Signaling Theory, and its application in the marketing field.
- **Chapter B3** comprises a critical review of research examining the construct of customer trust. In this chapter, the focus is on the conceptualisation and operationalization of trust.
- **Chapter B4** presents the research gaps identified in each of the above-mentioned streams of research.

**CHAPTER B1: PERCEIVED JUSTICE IN SERVICE RECOVERY RESEARCH****B1.1 INTRODUCTION AND OUTLINE OF THE CHAPTER**

Over the years, scholars have directed a substantial amount of attention towards issues related to service failure and recovery. Early studies focus on customer responses to service failures, which entail '*any service-related problems, real or perceived, that occur during a customer experience with the firm*' (Maxham, 2001, p. 11). The studies in this area examine issues such as, customer complaining behaviour following service failures (e.g., Singh, 1988; Blodgett and Anderson, 2000), and customer coping with failure-triggered negative emotions (e.g., Bougie, Pieters and Zeelenberg, 2003; Zeelenberg and Pieters, 2004; Kalamas, Laroche and Makdessian, 2008; Gelbrich, 2010; Gabbott, Tsarenko and Mok, 2011; Strizhakova, Tsarenko and Ruth, 2012; Tsarenko and Tojib, 2012; Tsarenko and Strizhakova, 2013; Sengupta, Balaji and Krishnan, 2015). This body of research largely neglects service recovery, which entails any efforts aimed at rectifying the service failure (Andreassen, 2001). Service recovery is nonetheless essential for encouraging customers to maintain the relationship with the firm.

There is consensus in the literature on the relevance of service recovery as a profitable service management strategy and as an important research topic. From a managerial perspective, service recovery is a central customer retention strategy that '*can turn angry, frustrated customers into loyal ones*' (e.g., Hart *et al.*, 1990, p. 148). Service recovery as a research topic holds remarkable importance, as evidenced by the amount of studies recently published in this domain (e.g., Edvardsson *et al.*, 2013; van der Heijden *et al.*, 2013; Zhu *et al.*, 2013; Keiningham *et al.*, 2014; Ro and Olson, 2014; Sivakumar, Li and Dong, 2014; Van Vaerenberg *et al.*, 2014; Zayer, Otner and Fischer, 2015). Service recovery is triggered by service failures. Hence, service failures and recovery encounters are inevitably intertwined. Customer perceptions towards service encounters wherein service recovery is endeavoured are within the scope of this thesis.

Extant service recovery research suggests that customers evaluate service recovery based on the justice (or fairness) rendered by the firm at the recovery stage. Perceptions of justice (or fairness) are shown to be the main drivers of post-recovery satisfaction and loyalty (Orsingher *et al.*, 2010). Given the prominence of justice perceptions in service recovery research, Chapter B1 provides a critical review of the literature on justice. In this chapter, the concept of justice is discussed, along with its theoretical underpinnings and applications in service recovery research. The outline of

Chapter B1 is as follows. First, the theoretical underpinnings of justice are discussed. Specifically, Justice Theory and the types (or dimensions) of justice are presented. In this part of the chapter, attention is directed towards the measurement of justice in service recovery research. Second, service recovery research embracing the concept of justice is critically reviewed, with a focus on the drivers, outcomes and moderators of justice perceptions. Finally, conclusions are drawn from the literature review.

## **B1.2 JUSTICE THEORY AND ITS APPLICATION IN SERVICE RECOVERY RESEARCH**

Concerns about justice (or fairness) are pervasive, and relate to several aspects of life. Individuals have concerns about fair distribution of resources in society. Likewise, students are concerned about receiving fair grades, and employees are concerned about receiving fair treatment from their peers and supervisors, and about receiving fair pay. Similar concerns are encapsulated in the concept of justice. The concept of justice originates from social psychology and it finds its theoretical underpinnings in the Justice Theory, whose main proponent is the sociologist George Homans (1961). A main premise of the Justice Theory, as postulated by Homans (1961) and later elaborated by Adams (1965) and other authors, is that concerns about justice are implicit in social behaviour. As a result, individuals in any social exchange behave in a manner that attains justice, and prevent injustice.

Due its pervasiveness in social life, the concept of justice has been studied across several disciplines, including philosophy, management, organisational research and services marketing. As pointed out by Colquitt *et al.* (2001) in a review of justice in organisational research, disciplines advance different definitions of justice. In philosophy, justice connotes 'rightness'. From a philosophical stance, an act is just when it conforms to a certain philosophical system. The same authors, however, note that there is ambiguity as to what the philosophical system constitutes. By contrast, in organisational research, justice is viewed as a subjective judgment. Accordingly, an act is just if individuals *perceive* it to be just or fair (Fortin, 2008). The body of literature devoted to the study of perceived justice in the workplace is commonly referred to as organisational justice research.

Organisational justice research uses the terms 'justice' and 'fairness' interchangeably (see for example organizational literature Greenberg, 1990; Masterson *et al.*, 2000; Ambrose and Cropanzano, 2003; Fortin, 2008). In a similar way, the two

terms 'justice' and 'fairness' are used interchangeably throughout this thesis. Organisational justice research suggests that information pertaining to justice is vital to the result of conflict situations (e.g., Greenberg, 1990; Cropanzano *et al.*, 2001). The authors explain that conflict can threaten justice. Justice therefore needs to be restored in order to manage conflict.

Drawing on the idea that issues related to justice are pertinent to conflict situations, services marketing literature advocates the relevance of justice as a theoretical framework for studying conflict in customer-firm relationships (Blodgett, Hill and Tax, 1997; Maxham and Netemeyer, 2003). In service recovery research, Goodwin and Ross (1989, 1990, 1992) were the first scholars to introduce the concept of justice in order to explain customer psychological processes of evaluating service failure and recovery encounters. In such encounters, customers gauge the fairness of the service recovery process and form perceptions of fairness accordingly. In turn, justice (or fairness) perceptions influence the attitudes and behaviour of consumers (for reviews, see Orsingher *et al.*, 2010; Gelbrich and Roschk, 2011). Drawing on organisational justice research, the literature in service recovery distinguishes between types (or dimensions) of justice, as further elucidated in the following section.

### **B1.3 THEORETICAL UNDERPINNINGS OF JUSTICE TYPES**

The organisational justice literature distinguishes between four types (or dimensions) of justice - distributive, procedural, interpersonal and informational. The theoretical underpinnings for each type of justice and the relevance in service recovery encounters are discussed in detail below.

The first type of justice is *distributive justice*, which entails perceptions that resources are fairly allocated. The concept of distributive justice originates from equity theory and the seminal work of John Stacy Adams (1965). According to equity theory, distributive justice is obtained when resources are allocated equitably, thus the benefits obtained from a social exchange are proportional to or even higher than the sacrifices. Equity is recognised as a key principle of distributive justice (Adams, 1963, 1965). In addition to the equity principle, the justice literature identifies the 'equality' and 'need' principles of distributive justice (Deutsch, 1975). Following equality and need principles, distributive justice is obtained when the outcomes of a social exchange are equal for all parties (equality) or greater outcomes are allocated to the party in need (need).

In a recovery situation, the equality and need principles of distributive justice would be met when recovery compensation is equal to all customers (equality), or it is greater for the party in need (need). The principle of equity is met when the customer perceives that the outcomes of service recovery leads to benefits (or gains), which are proportional to or even higher than the sacrifices (or investments) made. In a recovery situation, gains typically include recovery compensation (e.g., refund, discount). Customer sacrifices relate to the inconvenience caused by the service failure and to the effort put in lodging a complaint.

The equality and need principles are most relevant to communal relationships based on mutual caring, as pointed out by Aggarwal and Larrick (2012) in a study of customer fairness perceptions across communal and exchange relationships. By contrast, the equity principle of distributive justice is fundamental to exchange relationships, which are underpinned by economic factors such as financial repayments. The above viewpoint echoes Deutsch (1975) who stated that '*in cooperative relationships in which economic productivity is a primary goal, equity rather than equality or need will be the dominant principle of distributive justice*' (p. 143). Consistent with Deutsch (1975), distributive justice perceptions in service recovery encounters are commonly based on the equity principle. Given that customer-firm relationships are exchange relationships based on economic factors and material gain, customers are most concerned about receiving *equitable* recovery compensation.

The second type of justice is *procedural justice*, which entails perceptions that the procedures of allocating resources are fair (Leventhal, 1980). Procedural justice finds theoretical grounding in the theory of procedural justice, and the seminal work of Thibaut and Walker (1975, 1978) in the context of legal disputes. A main tenet of this theory is that the attainment of procedural justice is a function of perceived control (Thibaut and Walker, 1978). The authors distinguish between *process* and *decision* control. Decision control entails '*the degree to which any one may unilaterally determine the outcome of a dispute*' (Thibaut and Walker, 1978, p. 546). Process control denotes perceived control over '*the development and selection of information that will constitute the basis for resolving the dispute*' (Thibaut and Walker, 1978, p. 546). According to theory of procedural justice, perceived control is recognised as a key principle of procedural justice.

Following on the work of Thibaut and Walker (1978) in the context of legal disputes, Leventhal (1980), Lind and Tyler (1988) and Tyler (1989) discussed issues of



procedural justice at the workplace. In a departure from Thibaut and Walker's viewpoint (1978) that control is essential for obtaining procedural justice, Leventhal (1980) and Tyler (1989) argue that non-control factors are equally relevant to the attainment of procedural justice in organisational settings. Amongst non-control factors, the authors refer to neutrality (unbiased decision maker), consistency of procedures across time and persons, correctability (opportunities for challenging decisions) and ethicality (procedures that follow moral values). Further, Lind *et al.* (1988) refer to 'voice', namely the practice of allowing a party in a social exchange to voice discontent, as a principle of procedural justice.

In a recovery situation, procedural justice entails customer perceptions about the fairness of recovery procedures. Service recovery research shows that customers can often exercise little control over the outcome of the recovery encounter. Customers are, therefore, most concerned about exercising control over the processes of resolving the failure as well as non-control factors. A number of studies show that customers report procedural justice when given the opportunity to voice discontent and to express preference about the recovery outcome (Karande, Magnini and Tam, 2007), and experience timely resolution of the problem (e.g., Tax *et al.*, 1998; Smith *et al.*, 1999; Sparks and McColl-Kennedy, 2001; Chebat and Slusarczyk, 2005).

The third type of justice is *interactional justice*. Interactional justice entails perceptions that the manner in which decisions are communicated is fair. Interactional justice originates from the theory of interactional justice, and the work of Bies and Moag (1986) in the context of organisational recruitment practices. A main tenet of this theory is that interactional justice is essential for fulfilling individuals' needs for self-esteem (Bies and Moag, 1986; Cropanzano *et al.*, 2001). The theory identifies truthfulness, respect, propriety of questions and justification as key principles of interactional justice. In service recovery, interactional justice entails customer perceptions that communication during the service recovery process is fair. Given that customers typically communicate with employees during recovery encounters, interactional justice is formed based on evaluations of employee behaviour. Interactional justice is attained when employees meet the principles of interactional justice, thus show politeness, respect, empathy and sincerity (e.g., McCollough *et al.*, 2000; McColl-Kennedy and Sparks, 2003; Chebat and Slusarczyk, 2005).

Concerns about interactional and procedural justice have often been confounded in the literature, as highlighted by Bies and Moag (1986). The authors clarify that

procedural and interactional justice are, however, distinct and separate dimensions of justice. Procedural justice entails perceptions about the fairness of procedures of allocating outcomes, whereas interactional justice denotes perceptions about *the enactment of procedures*. Further, Bies and Moag (1986) explain that interactional justice perceptions are formed based on the actions or behaviour of a single individual or decision-maker. By contrast, procedural justice perceptions are attributed to the actions of the whole organisation. Since the work by Bies and Moag (1986), organisational justice research has increasingly embraced the distinction between procedural and interactional justice. This is evidenced by the meta-analysis of organisational justice literature by Cohen-Charash and Spector (2000). In a similar way, service recovery research distinguishes between distributive, procedural and interactional justice.

In a departure from the above idea that there are three main dimensions of justice, Colquitt *et al.* (2001) argue that as many as *four* types of justice are meaningful - distributive, procedural, interactional and informational. Based on the above argument, interactional justice entails two related yet distinct facets - interpersonal and informational. Whilst *interpersonal justice* relates to perceptions that individuals are treated with adequate sensitivity, *informational justice* entails perceptions that adequate information related to an outcome or action are provided (Colquitt, 2001). In a recovery situation, interpersonal justice denotes whether employees show adequate sensitivity towards the customer, whereas informational justice connotes the adequacy of employee communication at the recovery stage.

The above-discussed conceptualisation of justice has implications for the measurement of justice in service recovery research. A review of the literature reveals that there is ambiguity concerning the measurement of justice. Models include one, two, three or as many as four dimensions of justice. As illustrated in Table B1.1 at the end of this section, a few studies in service recovery research consider one dimension of justice (Mattila, 2006; Karande *et al.*, 2007). Such measurement can be attributed to the focus of the above studies on the mechanisms underlying customer perceptions of procedural justice (Karande *et al.*, 2007) and informational justice (Mattila, 2006). Two studies are identified that consider two dimensions of justice (McCollough *et al.*, 2000; Aggarwal and Larrick, 2012). By contrast, the vast majority of studies distinguishes between three dimensions of justice – distributive, procedural and interactional. As shown in Table B1.1, 19 studies are identified that measure three dimensions of justice (e.g., Tax *et al.*,

1998; Smith *et al.*, 1999; Chebat and Slusarczyk, 2005; del Rio-Lanza *et al.*, 2009; Kim, Kim and Kim., 2009), whereas only two studies measure four dimensions of justice (Mattila and Cranage, 2005; Liao, 2007). The measurement of justice as a four-dimensional construct is consistent with Colquitt *et al.* (2001) and the belief that informational and interpersonal facets of interactional justice are separate.

DeWitt, Nguyen and Marshall (2008) combine three dimensions of justice - distributive, procedural and interactional - into a single construct of overall justice perceptions. In a similar way, Liao (2007) models perceived justice as a higher order latent variable and a single predictor of post-complaint satisfaction. The above measurement implies that the dimensions of justice do not merit conceptual separation. Such measurement of justice, however, fails to account for the complexity inherent to justice perceptions, and the theoretical underpinnings of each justice type. Sharing the above viewpoint, Colquitt *et al.* (2001) call for a '*moratorium on indirect combination measures that combine three justice dimensions into a single variable*' (p. 438). The authors explain that the distinction between justice dimensions is meaningful to revealing the relative effects of justice types.

In summary, justice entails subjective judgments related to several aspects of social exchanges. These aspects denote different types (or dimensions) of justice. Organisational justice literature distinguishes between four types of justice - distributive, procedural, interpersonal and informational. In service recovery research, studies appear unanimous in supporting the separation between justice types. Notwithstanding, studies in this domain inconsistently investigate one, two, three or four dimensions of justice. The inconsistent measurement of justice can pose challenges to the comparison of research findings. Moreover, some studies use a global construct of justice, which encapsulates different justice dimensions. The measurement of justice as a global construct appears questionable given that justice dimensions have different theoretical underpinnings. Further, there is paucity of service recovery research that embraces the separation between interpersonal and informational justice. This conceptual separation has long been advocated by a number of scholars in organisational justice literature (e.g., Shapiro, Buttner and Barry, 1994; Colquitt, 2001; Colquitt *et al.*, 2001). The discrimination between the above two dimensions of justice could prevent confounding effects, and further insights on the drivers and outcomes of justice perceptions. Building on the above discussion, the attention now turns to extant research on the drivers and outcomes of perceived justice in service recovery.

**Table B1.1:** Conceptualisation of justice in service recovery research

Author(s)	Distributive Justice	Procedural Justice	Interpersonal Justice	Informational Justice
Tax <i>et al.</i> (1998)	✓	✓	✓	
Smith <i>et al.</i> (1999)	✓	✓	✓	
McCullough <i>et al.</i> (2000)	✓		✓	
Hui and Au (2001)	✓	✓		
Sparks & McColl-Kennedy (2001)	✓	✓	✓	
Maxham & Netemeyer (2002)	✓	✓	✓	
Maxham & Netemeyer (2003)	✓	✓	✓	
Mattila & Patterson (2004)	✓		✓	
Wirtz & Mattila (2004)	✓	✓	✓	
Chebat & Slusarczyk (2005)	✓	✓	✓	
Mattila & Cranage (2005)	✓	✓	✓	✓
Homburg & Fürst (2005)	✓	✓	✓	
Schoefer & Ennew (2005)	✓	✓	✓	
Voorhees & Brady (2005)	✓	✓	✓	
Mattila (2006)	✓			✓
Patterson <i>et al.</i> (2006)	✓	✓	✓	
Karande <i>et al.</i> (2007)		✓		
Liao (2007)	✓	✓	✓	✓
DeWitt <i>et al.</i> (2008)	✓	✓	✓	
Grégoire & Fisher (2008)	✓	✓	✓	
Schoefer & Diamantopoulos (2008)	✓	✓	✓	
del Rio-Lanza <i>et al.</i> (2009)	✓	✓	✓	
Kim <i>et al.</i> (2009)	✓	✓	✓	
Wirtz & McColl-Kennedy (2010)	✓	✓	✓	
McColl-Kennedy <i>et al.</i> (2011)	✓	✓	✓	
Aggarwal & Larrick (2012)	✓		✓	
Ro & Olson (2014)	✓	✓	✓	

#### B1.4 DRIVERS OF PERCEIVED JUSTICE IN SERVICE RECOVERY

The literature review reveals that prior studies often refer to organisational recovery efforts as drivers of justice perceptions. Prior to discussing the rationale for operationalizing recovery efforts as drivers of perceived justice, it appears worthwhile to first elucidate what organisational recovery efforts constitute. Organisational recovery efforts denote '*the actual action itself taken by the organisation*' in order to endeavour recovery (Davidow, 2003, p. 232). The literature proposes a number of classifications of organisational recovery efforts. In this respect, the work by Estelami (2000) and Davidow (2003)<sup>1</sup> is influential and at the core of the discussion in this section.

Estelami (2000) advanced a three-partite classification of organisational recovery efforts. According to this classification, compensation, promptness and employee behaviour are three key organisational recovery efforts. *Compensation* comprises any refund, replacement or repair for the inconvenience caused to the customer. *Promptness* entails the speed of processes in resolving the failure, whilst *employee behaviour* comprises aspects such as employee display of politeness and empathy. Building on Estelami (2000), Davidow (2003) proposed a six-partite classification of organisational recovery efforts. The author refers to, timeliness, facilitation, redress, apology, credibility and attractiveness as organisational recovery efforts. *Timeliness* indicates the speed of response on the part of the firm. *Facilitation* entails the firm's policies and procedures for handling customer complaints. *Redress* and *apology* entail two forms of compensation, monetary (i.e. redress) and psychological compensation (i.e. apology). *Credibility* relates to any given explanation about the service failure. *Attentiveness* refers to the behaviour of employees.

Although a six-partite classification may, at first, appear more comprehensive than a three-partite one, a closer inspection shows some overlaps between the organisational recovery efforts identified in the above-discussed classifications. Specifically, the aspects of *timeliness* and *facilitation* proposed by Davidow (2003) are akin to what Estelami (2000) broadly defines as 'promptness'. Similarly, Estelami (2000) uses the term 'compensation', which encompasses both 'redress' and 'apology' identified by Davidow (2003). Finally, *credibility* and *attentiveness* refer to aspects of

---

<sup>1</sup> Estelami (2000) and Davidow (2003) are highly cited papers. Based on Google Scholar, Estelami (2000) has 158 citations, and Davidow (2003) has 360 citations.

employee behaviour and are therefore akin to what Estelami (2000) termed as 'employee behaviour'.

A number of studies in service recovery research operationalise the above-discussed organisational recovery efforts as drivers of justice perceptions (e.g., Smith *et al.*, 1999; Sparks and McColl-Kennedy, 2001). As pointed out by Gelbrich and Roschk (2011), organisational recovery efforts are the *actual* actions taken by the firm, whereas perceptions of justice denote individuals' *subjective* evaluation of those actions. The above distinction between recovery efforts and perceptions of justice provides a rationale for operationalizing organisational recovery efforts as drivers of perceived justice. Alternatively, studies use perceptions of justice towards organisational recovery efforts as model variables (e.g., Maxham and Netemeyer, 2002; Chebat and Slusarczyk, 2005). Given that perceptions of justice are fundamental to demonstrating the efficacy of organisational recovery efforts, perceptions of justice are employed as model variables. In other words, organisational recovery efforts are assumed to affect perceived justice. Customer subjective assessment of recovery efforts, as opposed to the recovery action itself taken by the organisation, is therefore measured.

Consistent with the above idea that organisational recovery efforts can be assumed to affect perceived justice, Table B1.2 at the end of this section illustrates how the organisational recovery efforts identified by Estelami (2000) correspond to four well-established dimensions of justice (see discussion in Section B1.3). In particular, timeliness and facilitation tap into the domain of *procedural* justice, as both organisational efforts relate to recovery processes. Redress and apology are both forms of compensation and tap into *distributive* justice. Credibility and attentiveness relate to the adequacy of employee behaviour in interacting with the customer, and in providing an explanation for the failure. The above two recovery efforts tap into *informational* and *interpersonal* justice, respectively. Each of the above-discussed organisational recovery efforts and their relationship to justice perceptions are discussed in detail below.

#### **B1.4.1 Compensation as Organisational Recovery Effort**

Extant research has examined both monetary (i.e. refund) and non-monetary forms of compensation (i.e. apology) as organisational responses to service failures and related customer complaints. Compensation represents a first important recovery strategy to offset customer losses caused by the service failure (Tax *et al.*, 1998). Recovery compensation is effective when equitable. Consistent with equity theory

(Adams, 1965), recovery compensation is evaluated based on the gains received against sacrifices made. Customers are likely to perceive recovery compensation to be fair when monetary gains match or exceed the sacrifices incurred from purchasing the service and lodging a complaint.

Prior studies investigate the compensatory measures taken by employees. In this respect, evidence shows that equitable recovery compensation in the form of refund, credit, or discount restores customer satisfaction and fosters intentions to reuse the service provider (e.g., Smith *et al.*, 1999; Hui and Au, 2011; Sparks and McColl-Kennedy, 2001; Grewal, Roggeveen and Tsiros, 2008; Gelbrich, G athke and Gr egoire, 2015). By contrast, there is paucity of research that investigates the impact of compensation set in organisational policies on customer perceptions of justice.

#### **B1.4.2 Processes as Organisational Recovery Effort**

Recovery processes represent a second important aspect of service recovery encounters. Consistent with the theory of procedural justice (Thibaut and Walker, 1978), recovery processes are fair when customer perceive to be in control of the recovery process. For instance, customers have the opportunity to voice discontent. Extant service recovery research suggests that timeliness, promptness and flexibility shown by employees at the recovery stage elicit perceptions of procedural fairness, and these influence customer satisfaction, evaluations of the firm and intentions to show repatronage (e.g., Tax *et al.*, 1998; Smith *et al.*, 1999; Chebat and Slusarczyk, 2005).

Processes are a critical aspect in the service recovery process. Evidence shows that customers can be satisfied with an unsatisfactory compensation as long as recovery processes are fair. This effect is termed as ‘fair process effect’ (van den Bos, 2001). Overall, the literature review indicates that much attention has been directed towards understanding customer responses to the efficiency of employees in resolving the failure. By contrast, the literature seems to neglect situations when the terms set in organisational policies determine the timeliness of recovery processes.

#### **B1.4.3 Employee Behaviour as Organisational Recovery Effort**

Employee behaviour represents a third important aspect of service recovery encounters. During such encounters, customers are concerned about receiving redress as well as about being treated fairly. Consistent with the theory of interactional justice

(Bies and Moag, 1986), politeness, empathy and concern enhance customer self-esteem and interactional justice perceptions. Extant service recovery research shows that employee politeness, empathy and concern at the recovery stage are essential for shaping customer perceptions about the fairness of interactions (e.g., Tax *et al.*, 1998; Roschk and Kaiser, 2013).

Scholars also agree that service failures are emotional and stressful events (Gelbrich, 2010). The act of complaining and seeking redress can therefore be an emotional act. In order to offset negative emotions triggered by the failure, customers often look for employees who are understanding of their needs and can 'share the pain'. In addition to employee interpersonal treatment, employee communication is shown to influence customer perceptions of fairness (Mattila, 2006), to mitigate failure-elicited negative emotions (Gelbrich, 2010) and to create positive impressions about the firm (Dagger *et al.*, 2013).

#### **B1.4.4 Conclusions on the Drivers of Perceived Justice in Service Recovery**

The discussion in Section B1.4 suggests that recovery compensation, processes and employee behaviour are important organisational recovery efforts. Extant research follows two approaches to the investigation of organisational recovery efforts, and concurring customer perceptions. The first approach separates organisational recovery efforts from perceptions of justice. Based on this approach, organisational recovery efforts represent the actions the firm takes in order to endeavour recovery, and are the drivers of justice perceptions. Organisational recovery efforts are separate from justice perceptions, which denote a subjective assessment of organisational efforts. The second approach, on the other hand, does not separate organisational recovery efforts from perceptions of justice. Perceptions of justice, as opposed to the actual organisational recovery effort, are used as model variables. The decision to use perceived justice as model variables indicates that organisational recovery efforts are intrinsically linked with perceptions of justice. Hence, customers do not evaluate organisational recovery efforts in isolation, but against principles of fairness.

Further, the review of the literature in Section B1.4 suggests that prior studies emphasise the role of employees in providing recovery efforts, such as equitable recovery compensation, timely resolution of the failure and polite customer treatment. Employee behaviour is essential for conveying politeness, concern and honesty during interactions with customers. However, employees may lack empowerment to make



decisions related to recovery processes and compensation. In several instances, organisational policies prescribe the recovery processes and compensation rendered to the customer. Prior research has thus far overlooked the role of organisational policies as recovery strategies.

**Table B1.2:** Justice related to organisational recovery efforts

<b>Organisational effort(s)</b>	<b>Type(s) of justice</b>
Refund, repair, replacement, credit, correction plus, token compensation, discount, rebate	Distributive Justice
Timeliness/convenience, flexibility, voice, neutrality, follow-up	Procedural Justice
Politeness, empathy, honesty, attitude, effort, recovery initiation, courtesy, concern, apology*	Interpersonal Justice
Explanations, providing information, taking responsibility**	Informational Justice

\* 'Apology' often confounded with Distributive Justice

\*\* 'Taking responsibility' often confounded with Procedural Justice

## **B1.5 BEHAVIOURAL OUTCOMES OF PERCEIVED JUSTICE IN SERVICE RECOVERY**

Customer attitudes, emotions and behavioural intentions have been investigated as outcomes of justice perceptions in service recovery. Amongst customer attitudes, service recovery research provides wide empirical support for the impact of perceived justice on customer post-recovery *satisfaction* (e.g., Maxham and Netemeyer, 2002; Mattila and Patterson, 2004; Homburg and Fürst, 2005; Gelbrich and Roschk, 2011). As shown in Table B1.3 (see Appendix B), twenty-two studies include satisfaction as an outcome of perceived recovery fairness. The emphasis of prior research on customer satisfaction is reflected in the amount of studies investigating the phenomenon of ‘service recovery paradox’, whereby customer post-recovery satisfaction is paradoxically higher than satisfaction prior to the service failure (e.g., McCollough and Bharadwaj, 1992; McCollough *et al.*, 2000; Michel, 2001; Magnini *et al.*, 2007).

In addition to satisfaction, a handful of studies examines *trust* in service recovery (e.g., Tax *et al.*, 1998; Ok, Back and Shanklin, 2005; Kau and Loh, 2006; DeWitt *et al.*, 2008; Kim *et al.*, 2009). These studies support the role of trust as a direct outcome of perceived justice (DeWitt *et al.*, 2008) and as a mediator in the relationship between perceived justice and behavioural intentions (Tax *et al.*, 1998; Kau and Loh, 2006; Kim *et al.*, 2009). Moreover, customer *emotions* have been studied as outcomes of perceived recovery fairness (e.g., Smith and Bolton, 2002; Chebat and Slusarczyk, 2005; Schoefer and Ennew, 2005; Schoefer and Diamantopoulos, 2008; Gelbrich, 2010; McColl-Kennedy, Sparks and Nguyen, 2011; Choi and Choi, 2014). Whilst satisfaction and emotions are outside the scope of the review in Part B, trust is relevant to the thesis and it is reviewed in detail in Chapter B3. The focus in the discussion below is on behavioural intentions as outcomes of perceived justice in service recovery.

Extant service recovery research examines behavioural intentions such as repatronage and positive word-of-mouth (PWOM) as outcomes of perceived justice. With regards to PWOM, empirical findings find support for the mediation of post-recovery satisfaction in the perceived justice-PWOM link (e.g., Maxham and Netemeyer, 2002; Gelbrich and Roschk, 2011). Further, with respect to repatronage intentions, there is mixed evidence on whether perceived justice of service recovery directly or indirectly impacts repatronage intentions through the mediation of satisfaction or trust. A number of studies provide empirical support for the direct relationship between distributive and interactional justice perceptions and customer

repatronage intentions (e.g., Maxham and Netemeyer, 2003; McColl-Kennedy and Sparks, 2003). Other studies, however, indicate that there is an indirect link between perceived justice and behavioural intentions, through the mediation of recovery satisfaction and/or trust (e.g., Tax *et al.*, 1998; Kim *et al.*, 2009). This evidence implies that recovery satisfaction and/or trust is often a condition for customers to show repatronage intentions.

The impact of perceived justice on behavioural intentions finds theoretical foundation in the reciprocity principle from social psychology (Gouldner, 1960). According to this principle, individuals are inclined to help those who have helped them. In service recovery situations, customers reciprocate fairness rendered by the firm by showing intentions to remain loyal. In this sense, loyalty is a form of reciprocation to fairness. In particular, intentions to revisit the firm and to generate PWOM are commonly used as proxies for loyalty. This is consistent with the tenets of Ajzen's theory of planned behaviour (TPB). Based on the TPB, stated intentions precede behaviour and are proxies for actual behaviour (Ajzen, 1991).

Based on the above discussion, the literature has studied customer attitudes, emotions and behavioural intentions as outcomes of perceived justice in service recovery. Amongst customer attitudes, satisfaction has received much attention in extant research. By contrast, research that investigates relational constructs such as trust as outcomes of perceived justice in service recovery remains sparse. Extant service recovery research also shows conflicting findings regarding the perceived justice-behavioural intentions link. The literature depicts a direct perceived justice-behavioural intentions link, or an indirect link through the mediation of satisfaction or trust. Furthermore, a number of contingency (or intervening) factors are identified in the literature that either strengthen or weaken the impact of perceived justice on the above-discussed outcomes. Such factors are presented in the section below.

## **B1.6 MODERATING VARIABLES IN CUSTOMER RESPONSES TO SERVICE FAILURE AND RECOVERY ENCOUNTERS**

Service-related research identifies a number of moderating variables in customer responses to service failure and recovery encounters. These include factors such as the length and quality of the customer-firm relationship, the firm's characteristics such as reputation and brand equity, customer culture and attributions about the service failure. The discussion in this section focuses on two key moderating variables, namely firm

reputation and attributions. Research on both variables is important for theoretical advancements, and for managerial implications. From a theoretical perspective, firm reputation is shown to build a wealth of mental associations around the brand. Such associations influence customer responses to service failures (Hess, 2008; Brady *et al.*, 2008). Similarly, attributions are a pervasive psychological mechanism, especially in the context of unsatisfactory events such as service failures (Hess, Ganesan and Klein, 2003). From a managerial perspective, firms incur a high risk of jeopardising their reputation in the marketplace if customer complaints are handled unsatisfactorily. Further understanding of reputation in service recovery encounters is, therefore, important. Similarly, research on customer attributions can explain why current practices in the area of service recovery management are perceived as unsatisfactory (see also discussion in Part A of this thesis). The above factors are discussed below.

### *Firm Reputation*

Several definitions of reputation have been provided across different research domains, from management to strategy and consumer research. For instance, in consumer research, Herbig and Milewicz (1993) define reputation as '*an estimation of the consistency over time of an attribute of an entity*' (p. 18). A more recent definition in the area of brand management refers to reputation as '*a collective assessment of a company's ability to provide valued outcomes to a representative group of stakeholders*' (Fombrun, Gardberg and Sever, 2000, p. 243). Consistent with the above definitions, firms develop reputation towards different attributes such as attributes of the firm, its quality, price and fairness (Walsh and Beatty, 2007). The literature argues that reputation is built over time (Nguyen and Leblanc, 2001) and is evaluated by people outside the organisation, such as customers (Walsh *et al.*, 2009).

In business-to-business research, the parties in a business relationship are argued to signal their intentions and future actions through their reputation in the marketplace (e.g., Ganesan, 1994; Doney and Cannon, 1997). The above argument that the parties in a relationship signal their intentions through reputation follows the perspective from information economics. Based on this perspective, reputation is a useful strategy for organisations to project information about the quality of their products/services and about the attributes of the firm (Akerlof, 1970). Reputation functions as a signal of the attributes of the firm, as further discussed in Chapter B2.

Service recovery research shows that firm reputation affects customer responses of service failures. For instance, research shows that firm reputation for quality mitigates the negative impact of severe service failures on customer satisfaction (Hess, 2008). The author explains the moderating effect of firm reputation by drawing on research in advertising, showing that customers give the benefit of the doubt to reputable firms using extreme advertising claims. In a similar way, customers give the benefit of the doubt to reputable firms incurring service failures. Similar to brand equity, firm reputation builds mental associations around the brand, which in turn influence customer responses to service failures. Similar to the anchoring and adjustment model from psychology research (Hogarth and Einhorn, 1992), customers access existing mental associations about the brand when experiencing service failures. Such associations function as a benchmark against which new information (i.e. service failure) is evaluated.

Despite providing meaningful insights, Hess (2008) does not examine service recovery and concurring perceptions of justice. Justice perceptions are, however, essential for explaining customer responses to service failure and recovery encounters. Furthermore, given that customers are particularly concerned about the fairness rendered by the firm during the service recovery process, firm reputation for fairness is likely to be relevant, more than reputation for quality. Whilst research in business-to-business marketing has studied reputation for fairness (e.g., Anderson and Weitz, 1992; Ganesan, 1994), there is no research in service recovery domain that examines the role of firm reputation for fairness in the context of service failure and recovery encounters.

### *Causal Attributions*

Individuals often seek to understand the reason why events happen, especially negative ones. This pursuit is a pervasive psychological phenomenon, which has been studied by the Attribution Theory (Heider, 1958; Folkes, 1984; Weiner, 2000). Attribution Theory focuses on understanding how individuals seek causal explanations for events they experience, also known as 'causal attributions'. Given that causes are often not directly observable, causality is an ascription imposed by the individual, thus inferred or speculated (Weiner, 1986). The review of the literature in service recovery reveals that causal attributions are a persistent phenomenon in the context of service failures. In this context, customers seek causal explanations about the failure in an effort

to assign blame, to predict the environment, and indirectly, to avoid incurring service failures in the future (Weiner, 2000).

Extant service recovery research has devoted attention towards customer attributions about service failures, as evidenced by a recently published meta-analysis of the literature on failure-related attributions (Van Vaerenberg *et al.*, 2014). Research in this domain has mainly investigated three failure-related attributions – locus, stability and controllability (e.g., Swanson and Kelley, 2001; Hess *et al.*, 2003; deMatos, Henrique and Rossi, 2007). Through locus, customers attempt to establish the responsibility for the service failure. Through stability, customers assess the extent to which the service failure is likely to re-occur in the future, and through controllability, customers attempt to establish the firm's level of control over the service failure (i.e. whether the failure could have been avoided). For instance, Hess *et al.* (2003) show that low stability attributions, thus inferences that the service failure is unlikely to re-occur, leads to enhanced satisfaction with the firm's service recovery performance. Locus, on the other hand, elicits negative customer emotions (Gelbrich, 2010).

A fourth causal attribution relates to inferred motive (Weiner, 1986). Inferred motive entails customer beliefs about the extent to which the firm's actions are motivated by interests to maximise profits. Motives are defined as either positive (customer-oriented) or negative (firm-oriented) (Joireman *et al.*, 2013). Inferred motive has been examined in price fairness research (e.g., Campbell, 1999). In pricing research, motive attributions are shown to influence perceptions of fairness towards pricing (e.g., Campbell, 1999) and price guarantees (e.g., Kukar-Kinney *et al.*, 2007). Further, in a study of public perceptions of US President Bush's motives for initiating war in Iraq, Reeder *et al.* (2005) show that understanding the motives of an offender's actions is the basis upon which a victim decides whether to trust the offender.

Despite the relevance of inferred motive in explaining customer perceptions of fairness, empirical research that investigates inferred motive in service recovery remains scant. Inferred motive has been recently studied by Joireman *et al.* (2013) in the context of double deviations, whereby both the service and the recovery fail. The authors, however, do not consider perceived justice and call for research that examines inferred motive in the context of one-off service failure and recovery encounters.

## **B1.7 CONCLUSIONS ON PERCEIVED JUSTICE IN SERVICE RECOVERY RESEARCH**

Chapter B1 presented a critical review of service recovery research, with particular emphasis on the concept of perceived justice. Specifically, this chapter included a discussion of the theoretical underpinnings of perceived justice, and a review of the literature on the drivers, outcomes and moderators of perceived justice in service recovery. The review in Chapter B1 reveals that Justice Theory represents a relevant theoretical framework in explaining customer responses to service failure and recovery encounters. Perceived justice has so far received considerable attention from prior studies. Notwithstanding, a number of unresolved issues emerge from the literature review. Such issues have been discussed throughout Chapter B1, and are summarised, in turn, for clarification.

First, early applications of the Justice Theory are in the context of organisational studies. In the domain of organisational studies, the literature identifies four types (or dimensions) of justice – distributive, procedural, interpersonal and informational. Whilst acknowledging that justice entails four main dimensions, a few isolated studies in service recovery research distinguish between interpersonal and informational justice. Research in this domain often combines interpersonal and informational justice into a construct termed ‘interactional justice’. Interpersonal and informational justice, however, represent two distinct and separate types of justice (e.g., Shapiro *et al.*, 1994; Colquitt, 2001). Interpersonal justice taps into the *sensitivity* shown by an individual during interactions, such as employee sensitivity during service recovery encounters. Informational justice taps into the *explanations* provided by an individual during a social exchange, such as employee explanations about the service failure. Extant knowledge on the drivers and outcomes of perceived justice in service recovery can be advanced if the distinction between informational and interpersonal justice is embraced. At present, the above issue is unresolved.

Second, extant service recovery research emphasises the crucial role played by employees in delivering fair service recovery. This body of literature, however, overlooks situations in which employee recovery efforts are constrained by organisational policies such as service guarantees. Service guarantees are widely used in marketing practice and are invoked when services fail. Hence, these policies can be employed as recovery strategies. The question of how guarantee policies are employed

as recovery strategies, and their influence on customer perceptions of recovery fairness remains unanswered.

Third, ample empirical evidence supports the role of satisfaction as an outcome of perceived justice in service recovery. By contrast, evidence on the impact of perceived justice on post-recovery trust is sparse. In particular, systematic research that investigates the impact of all four types of justice on customer trust in service recovery is currently lacking. Customer trust is, however, a crucial component of successful customer-firm relationships (e.g., Morgan and Hunt, 1994; Hansen, 2012). Trust is particularly important following service failures, when customers experience uncertainty related to the decision to repurchase from the same firm, and/or to defect (Rotte *et al.*, 2006).

Fourth, extant research suggests that factors external to the service recovery encounter can influence customer perceptions. Two factors are important in relation to perceptions of fairness and situations where service recovery is implemented through service guarantees, namely firm reputation and inferred motive. Prior research that examines firm reputation in service failure encounters does not take customer perceptions of justice into consideration (e.g., Hess, 2008). Given that customers are highly concerned about fairness in service recovery, firm reputation for fairness is likely to hold relevance at the recovery stage. Further, service recovery research shows that causal attributions are pervasive cognitive processes of evaluating service failures. Prior research extensively examines locus, stability and controllability attributions, whilst disregarding attributions related to the firm's motives (termed 'inferred motives'). Inferences of motive are shown to inform an individual's willingness to trust another individual in a social exchange (e.g., Reeder *et al.*, 2005). Customer inferences of motives and firm reputation are likely to impact customer responses to service recovery. The above issues, however, remain unresolved.

Based on the above discussion and in recognition of the important role played by service guarantees at the recovery stage (see also discussion in Part A of this thesis), the attention now turns to the body of research on service guarantees. A dominant theoretical perspective in explaining customer perceptions of service guarantees is based on Signaling Theory. In Chapter B2, marketing research employing Signaling Theory is reviewed.



**CHAPTER B2: SIGNALING IN MARKETING RESEARCH****B2.1 INTRODUCTION AND OUTLINE OF THE CHAPTER**

As discussed in Parts A of this thesis, there is consensus among scholars on the crucial role played by employees in delivering fair service recovery. In prior literature, it is also acknowledged that employee recovery efforts can be constrained by organisational policies, such as service guarantees. The terms set in service guarantees often regulate recovery processes and the amount of recovery compensation given to customers. Both employee recovery efforts and service guarantees can therefore influence customer perceptions at the recovery stage. The effect of service guarantees and employee behaviour on customer perceptions in service recovery is investigated in this thesis.

Service guarantees have been studied in consumer research. Research in this domain suggests that service guarantees function as marketing signals. These policies influence customer purchase decisions by means of providing cues (or signals) about service quality and about the attributes of the service firm (Kirmani and Rao, 2000). The signaling function of service guarantees is explained by the well-established Signaling Theory (Spence, 1973). Given the importance of the Signaling Theory in explaining consumer perceptions of service guarantees, Chapter B2 provides a critical review of the marketing research employing Signaling Theory.

The outline of Chapter B2 is as follows. First, the concept of signaling is introduced, along with Signaling Theory and its main premises. Second, the marketing literature employing Signaling Theory is reviewed. In this part of Chapter B2, the types of marketing signals identified in the literature are presented and extant research on customer perceptions of marketing signals is critically reviewed. Finally, conclusions are drawn from the review of literature.

## B2.2 MAIN PRECEPTS OF SIGNALING THEORY

Signaling Theory stems from the field of information economics and its main proponent is the economist Michael Spence (1973, 1974, 2002)<sup>2</sup>. A fundamental tenet of Signaling Theory is that *'different parties to a transaction often have different amounts of information regarding the transaction'*, in a condition known as *'information asymmetry'* (Kirmani and Rao, 2000, p. 66). Conditions of information asymmetry exist in a variety of situations. In his seminal article, Spence (1973) describes the conditions of information asymmetry encountered by employers at the time of screening and hiring job applicants. In similar situations, information asymmetry exists because employers lack information about the productive attributes and capabilities of job applicants (i.e. the applicant's performance on the job). Some attributes of employees, such as age and gender, are observable, thus termed *'indices'*. Unobservable attributes, on the other hand, are termed *'signals'* (Spence, 1973). In the context of job interviews, signals can be used by the job applicant in order to influence the employer's hiring decisions. For instance, job applicants might use personal appearance as a signal. Signaling aims at lowering information asymmetry that hampers the employer's ability to select an applicant. By using the signal, the employer can decide whether to hire the applicant or not.

Bloom and Reve (1990) observe that the term *'signal'* embeds several meanings and it *'is used in a wide variety of contexts'* (p. 2). In this thesis, the meaning of the term *'signal'* is consistent with the perspective from information economics. Based on this perspective, signals denote *'activities or attributes of individuals in a market which, by design or accident, alter the beliefs of, or convey information to, other individuals in the market'* (Spence, 1974, p. 1). In the job market, signals entail for instance the characteristics of individuals (e.g., the personal appearance of a job applicant). In business markets, signals can include the attributes of products/services and the actions *'the parties take to reveal their true types'* (Kirmani and Rao, 2000, p. 66). For instance, sellers use signals such as branding or advertising in order to convey the quality of their products to buyers (or the market). By doing so, sellers attempt to reduce information asymmetry that hampers the buyers' ability to select a firm amongst many firms available in the marketplace (this condition is known as *'selection problem'*; Spence, 1973). As information asymmetry lowers, perceived uncertainty related to the purchase

---

<sup>2</sup> Along with Michael Spence, George Akerlof and Joseph Stiglitz received the 2001 Nobel Prize in Economics for their work on information economics.

decision decreases. The buyer should therefore be able to distinguish between high-quality and low-quality sellers, and to make a purchase decision.

Signaling typically involves three entities, namely the signal, the signaler and the receiver. In customer-firm exchanges, the signal is the information conveyed, the signaler and the receiver are typically the firm and the customer, respectively. Upon receiving the signal, the receiver interprets it, makes decisions and sends feedback to the signaler in the form of what Connelly *et al.* (2011) define as ‘countersignal’. As pointed out by Connelly *et al.* (2011) in a review of management research employing Signaling Theory, information asymmetry works in two directions. In other words, receivers need information from the signalers (in the form of signals) in order to make decisions. Likewise, signalers need information from receivers (in the form of countersignals) in order to establish the efficacy of signaling.

In the marketing domain, scholars propound the relevance of Signaling Theory in explaining how information asymmetry influences customer perceptions and purchase decisions. In customer-firm exchanges, firms often know their attributes and/or the quality of their products/services, but consumers do not. Consequently, information asymmetry is encountered (Kirmani and Rao, 2000; Connelly *et al.*, 2011). Due to information asymmetry, customers are unable to make a distinction between high-quality and low-quality providers, and they experience heightened perceptions of uncertainty related to the purchase decision. In order to facilitate customer purchase decisions, firms use signals. Therefore, signaling can result in large payoffs to firms providing high quality products/services (Akerlof, 1970). Having clarified the fundamental assumptions of Signaling Theory, the attention now turns to the application of Signaling Theory in marketing research.

### **B2.3 CUSTOMER RESPONSES TO MARKETING SIGNALS**

Prior to discussing customer responses to marketing signals, it seems worthwhile to first define what *marketing* signals constitute. Herbig and Milewicz (1994) define marketing signals as ‘*a marketing activity which provides information beyond the activity itself and which reveals insights into the unobservable, the message within the message*’ (p. 19). The above definition is, however, vague and does not detail which marketing activities function as signals. Erdem and Swait (1998) provide examples of marketing signals and state: ‘*marketing mix elements such as packaging, advertising, and warranties not only provide direct product information but also convey*

*indirect information on product attributes about which consumers are imperfectly informed. Therefore, mix elements may serve effectively as signals'* (p. 134). Further, Kirmani and Rao (2000) introduce the idea of signals as 'actions' taken by the parties involved in a transaction in order to '*reveal their true types*' (p. 66). The authors refer to price, warranty, brand name and advertising expenditure as examples of signals. Overall, existing definitions share one core idea that marketing signals reveal information about the 'unobservable', including unobservable attributes of products/services and the attributes of the firm. A summary of the signals identified in the marketing literature is provided in Table B2.1 in Appendix C.

A review of marketing research employing Signaling Theory reveals that three main aspects characterise the investigation of signaling processes in marketing research. First, the majority of studies examine *product* signals. As illustrated in Table B2.2 at the end of this section, nineteen studies in marketing investigate product signals (e.g., Shimp and Bearden, 1982; Kirmani, 1990; Boulding and Kirmani, 1993; Dawar and Parker, 1994; Erdem and Swait, 1998; Srivastava and Mitra, 1998; Rao, Qu and Ruekert, 1999; Samu, Krishnan and Smith, 1999; Kukar-Kinney and Walters, 2003; Soberman, 2003; Dutta and Biswas, 2005; Basuroy, Desai and Talukdar, 2006; Dutta, Biswas and Grewal, 2007; Kukar-Kinney *et al.*, 2007; Bonifield, Cole and Schultz, 2010; Ho, Ganesan and Oppewal, 2011; Zhu *et al.*, 2012; Fang, Gammoh and Voss, 2013; Atkinson and Rosenthal, 2014). By contrast, only eleven studies consider service signals (Wirtz *et al.*, 2000; Nguyen and Leblanc, 2001; Wirtz and Kum, 2001; Wang, Beatty and Foxx, 2004; Chatterjee, Kang and Mishra, 2005; San Martín and Camarero, 2005; Dean and Lang, 2008; Wu *et al.*, 2012; Jha *et al.*, 2013; Jin and He, 2013; McQuilken *et al.*, 2013). One study investigates signaling in both product and service contexts (Wang *et al.*, 2014).

As discussed in Section B2.2, a fundamental assumption of Signaling Theory is that two parties in an exchange often experience information asymmetry (Spence, 1973). In customer-firm exchanges, firms often hold information about their true attributes that customers need. Information asymmetry increases customer perceived uncertainty related to a purchase (or repurchase) decision. Uncertainty related to the purchase of services is commonly high. Such uncertainty is due to the characteristic of intangibility of services, which makes services highly unobservable (Herbig and Milewicz, 1994). Signaling is, therefore, important in services to lower customer uncertainty and to influence purchase decisions. Echoing the above viewpoint, a number

of scholars argue that signaling is important in service contexts, more than in product contexts (e.g., Dutta *et al.*, 2007; Jha *et al.*, 2013).

Second, much research in marketing examines *quality* signals. Quality signals convey information about the quality of the signaler and influence the receiver's perceptions of quality. It is, therefore, not surprising that eleven studies find empirical support for perceived quality as an outcome of signaling. This body of literature shows that warranties (e.g., Shimp and Bearden, 1982; Boulding and Kirmani, 1993), advertising (e.g., Kirmani, 1990), branding (e.g., Erdem and Swait, 1998; Rao *et al.*, 1999), guarantees (e.g., Wirtz *et al.*, 2000; Wu *et al.*, 2012; Jin and He, 2013) and a combination of the above signals (e.g., Srivastava and Mitra, 1998; Chatterjee *et al.*, 2005; Fang *et al.*, 2013) shape customer perceptions of quality.

In isolated cases, the literature examines how signals influence customer trust (e.g., Wang *et al.*, 2004; San Martín and Camarero, 2005; Bonifield *et al.*, 2010; Atkinson and Rosenthal, 2014), brand perceptions (e.g., Kirmani, 1990; Dawar and Parker, 1994; Samu *et al.*, 1999), perceived value (e.g., Wirtz and Kum, 2001; Kukar-Kinney and Walters, 2003; Jha *et al.*, 2013) and fairness perceptions (e.g., Kukar-Kinney *et al.*, 2007; McQuilken *et al.*, 2013). With the exception of the above studies, research that investigates how firms signal information other than quality appears sparse. This is surprising given that Stiglitz (2000), in his seminal article, asserts that quality is not the only type of information where asymmetry is important. Information about *intent* can also be asymmetrical. Echoing the above viewpoint, Connelly *et al.* (2011) call for further research that investigates intent signals.

Third, prior research examines the impact of signaling on customer *purchase intentions*. As illustrated in Table B2.2, six studies in this domain demonstrate that marketing signals lower customer perceptions of risk (e.g., Shimp and Bearden, 1982; Erdem and Swait, 1998; Wirtz *et al.*, 2000; Wirtz and Kum, 2001; Wu *et al.*, 2012; Fang *et al.*, 2013), whilst enhancing customer purchase intentions (e.g., Wirtz *et al.*, 2000; Chatterjee *et al.*, 2005). By contrast, research that examines the effect of signaling on customer *repurchase* decisions remains sparse. Based on the literature review, four studies are found that investigate how signaling affects customer post-purchase consumption (Zhu *et al.*, 2012), repurchase intentions (Dutta *et al.*, 2007), post-purchase search intentions (Dutta and Biswas, 2005) and loyalty (Jha *et al.*, 2013).

However, signaling is important in explaining customer repurchase decisions. As pointed out by San Martín and Camarero (2005) in a study of customer responses to

firms' signaling in a service context, customers can face the selection problem at the time of making repurchase decisions. The authors assert, '*although the consumer who has previous experience with the provider will have less fear of erring when repeating buying, a selection problem always exists regarding the advisability of changing provider or regarding the doubt whether the previous provider is going to provide the same quality as the first time*' (p. 83). Hence, in repurchase decisions, the selection problem occurs because customers perceive uncertainty related to the decision either to select the same firm again or to switch away. Such uncertainty is driven by the fear of erring in selecting the wrong firm. Uncertainty related to repurchase decisions is arguably even higher when service failures are encountered, and customers face the decision either to repurchase from the firm, or to switch. In such instances, customers may have doubts about whether the firm will be able to provide a better service in the future and/or to resolve service failures. The firm's actions and organisational policies can function as signals, overcome perceived uncertainty, and ease customer repurchase decisions.

In summary, scholars concur on the impact of marketing signals on customer perceptions of quality and consequent purchase intentions. Extant research has widely investigated the role of product signals of quality. By contrast, evidence on the role of signals in conveying information other than quality remains sparse. In addition, studies have thus far overlooked the effect of signaling on customer repurchase decisions, especially when service failures occur. When services fail and recovery is endeavoured, service guarantees are invoked. Service guarantee signals, therefore, play in the service recovery process and in shaping customer perceptions. With the above in mind, the next section focuses on reviewing extant research on service guarantees.

**Table B2.2** Customer responses to signaling in marketing

<b>Author(s)</b>	<b>Context</b>	<b>Signal(s)</b>	<b>Customer Response(s)</b>
Shimp & Bearden (1982)	P	Warranty	Perceived quality; Perceived risk; Performance
Kirmani (1990)	P	Advertising	Perceived cost; Perceived effort; Perceived ad quality; Brand perceptions
Boulding & Kirmani (1993)	P	Warranty	Perceived quality
Dawar & Parker (1994)	P	Mixed	Brand perceptions; Price; Physical appearance; Reputation of retailer
Erdem & Swait (1998)	P	Branding	Perceived quality; Perceived risk; Information costs
Srivastava & Mitra (1998)	P	Mixed	Perceived quality
Rao <i>et al.</i> (1999)	P	Branding	Perceived quality
Samu <i>et al.</i> (1999)	P	Advertising	Brand awareness, accessibility, beliefs, accessibility, attitudes
Wirtz <i>et al.</i> (2000)	S	Guarantee	Expected quality; Perceived risk; Purchase intent
Nguyen & Leblanc (2001)	S	Mixed	Loyalty
Wirtz & Kum (2001)	S	Guarantee	Perceived value of guarantee; Perceived risk; Perceived likelihood of service failure
Kukar-Kinney & Walters (2003)	P	Guarantee	Signal believability; Perceived value; Patronage intentions
Soberman (2003)	P	Warranty	Firm's ability to screen buyers
Wang <i>et al.</i> (2004)	S	Mixed	Cue-based trust; Bookmarking intentions; Willingness to give personal details
Chatterjee <i>et al.</i> (2005)	S	Mixed	Perceived quality; Likelihood to select the shop
Dutta & Biswas (2005)	P	Guarantee	Post-purchase search intentions; Perceived value of the deal; Purchase Intent
San Martin & Camarero (2005)	S	Mixed	Trust
Basuroy <i>et al.</i> (2006)	P	Mixed	Box office revenues
Dutta <i>et al.</i> (2007)	P	Guarantee	Perceived credibility of retailer; Repurchase intentions
Kukar-Kinney <i>et al.</i> (2007)	P	Guarantee	Policy fairness; Price fairness; Perceived value; Shopping intentions
Dean & Lang (2008)	S	Mixed	Anticipated satisfaction with the product
Bonifield <i>et al.</i> (2010)	P	Mixed	Perceived control; Perceived return policy leniency; Trust of the website
Ho <i>et al.</i> (2011)	P	Guarantee	Customer search; Perceived integrity and intentions of the store
Wu <i>et al.</i> (2012)	S	Guarantee	Perceived quality; Perceived risk
Zhu <i>et al.</i> (2012)	P	Mixed	Perceived product efficacy; Product post-purchase consumption
Fang <i>et al.</i> (2013)	P	Mixed	Perceived product quality; Perceived risk
Jha <i>et al.</i> (2013)	S	Corporate image	Satisfaction; Perceived value; Attitudinal loyalty
Jin & He (2013)	S	Guarantee	Expected quality; Purchase intention; Perceived usefulness of the guarantee
McQuilken <i>et al.</i> (2013)	S	Guarantee	Perceived fairness
Atkinson & Rosenthal (2014)	P	Certifications	Eco-label trust; Product and source attitude; Purchase intent
Wang <i>et al.</i> (2014)	P/S	Reputation	Purchase intentions; Ability and truthfulness beliefs; Perceived investments

Note: P=product. S=service

### B2.3.1 Customer Responses to Guarantee Signals

Marketing research employing Signaling Theory refers to *price* and *service* guarantees as signals of quality. Turning to *price guarantees* first, the evidence on the efficacy of low price guarantee signals as pricing strategies is mixed. For instance, Biswas *et al.* (2002) demonstrate that low price guarantee signals are useful strategies for businesses. The authors show that low price guarantees positively influence customer perceptions of value and intentions to purchase, especially in high price stores. In contrast to the above evidence, Dutta and Biswas (2005) show that low price guarantees can be detrimental to businesses. Evidence from the above study indicates that customers report intentions to search for even lower prices when making a purchase under a low price guarantee, in order to obtain even greater value from the purchase.

Adding to the above evidence, Ho *et al.* (2011) demonstrate that customer intentions to search for lower prices depend upon the size of the search costs. In the same study, customers report greater intentions to search for lower prices when search costs are low, and a price guarantee is employed. The above finding is explained by the obligatory function of low price guarantee signals, which gives customers the legitimate right to claim money back if a lower price is found. The authors, however, do not consider how the terms set in the low price guarantee might have influenced customer intentions to search for even lower prices. Large refund included in the guarantee might have encouraged customers to invest time searching for lower prices.

Kukar-Kinney and Walters (2003) examine how the size of payout included in price-matching guarantees influences customer responses to this signal. The authors show that large payout in price-matching guarantees enhances customer perceived value and, in turn, patronage intentions. Furthermore, large payout leads to perceptions of fairness towards the policy, and in turn, towards the product price. The authors explain the above findings through the lens of Attribution Theory (Heider, 1958), and in particular, the concept of inferred motive. In their study, customers infer positive motives about the firm's decision to offer the guarantee policy, and such inferences influence perceptions of price fairness. In sum, extant marketing research finds empirical support for the role of price guarantees as signals of quality and fairness. In particular, the terms set in price guarantee policies are shown to influence customer perceptions and consequent purchase decisions.

Turning the attention to *service guarantees*, the literature refers to service guarantees as default-contingent signals of quality, by which the firm conveys the



commitment to incur a monetary loss in the event of default on its claim (e.g., the claim about quality reveals to be false) (Kirmani and Rao, 2000). As such, service guarantees have been shown to lower customer perceived risk whilst enhancing purchase intentions by means of providing cues about service quality and about the quality attributes of the firm (e.g., McCollough and Gremler, 1999; Wirtz *et al.*, 2000; Wirtz and Kum, 2001; Björilin Lidén and Skålén, 2003; Wu *et al.*, 2012). Further, recent research indicates that service guarantees are a useful strategy for increasing the market value of the firm (Meyer *et al.*, 2014).

Unlike the body of research on price guarantees, the literature on service guarantees has so far neglected how these signals convey information other than quality (see also discussion in Section B2.3 and Table B2.3 at the end of this section). In particular, extant research that examines how service guarantee signals influence customer perceptions and concurring repurchase decisions in service failure and recovery encounters remains sparse. In this respect, Kandampully and Butler (2001) argue that service recovery implemented through service guarantees can reduce negative word of mouth. The above study is, however, conceptual and lacks empirical evidence. Further, Björilin Lidén and Edvardsson (2003) and Björilin Lidén and Skålén (2003) note the relevance of service guarantees in eliciting perceptions of fairness, as well as suspicion amongst customers. The above studies, however, do not examine situations where service recovery is implemented through the guarantee.

To the author's knowledge, only two empirical studies examine how service guarantee signals influence customer repurchase decisions following service failures (McQuilken *et al.*, 2013; Van Vaerenberg *et al.*, 2014). Van Vaerenberg *et al.* (2014) focus on how employee recovery efforts shape customer intentions to invoke service guarantees. The authors treat service recovery and guarantees as two distinct strategies, and the impact of these strategies on customer perceptions of justice is not examined. McQuilken *et al.* (2013) consider customer perceptions of justice towards guarantee compensation and employee behaviour, whilst overlooking customer perceptions about the ease of invoking the guarantee. Ease of invocation is, however, important when services fail and the guarantee policy is invoked (e.g., Hart, 1988; Hart, Schlesinger and Maher 1992; Ostrom and Iacobucci, 1998; Berman and Mathur, 2014; Meyer *et al.*, 2014).

The extant paucity of empirical research that investigates the role of service guarantee signals in service failure and recovery encounters is surprising considering

that guarantees are meaningful and frequently used in markets where there is risk of breakdown, as pointed out by Spence (1974) in his seminal work on information economics. The author explained that, in the event of breakdown, one purpose of the guarantee is 'to alter the payoff to the customer' (Spence, 1974, p. 88). Due to the characteristics of intangibility and inseparability of production and consumption inherent to services, service firms are prone to breakdowns or service failures. When services fail, customers may invoke service guarantees. Hence, service guarantees are important strategies that prevent customer losses related to the service failure. Echoing the above viewpoint, a number of scholars call for further research that investigates guarantees in service recovery (e.g., Callan and Moore, 1998; Björlin Lidén and Edvardsson, 2003; Björlin Lidén and Skålén, 2003; Hogreve and Gremler, 2009; Berman and Mathur, 2014).

Furthermore, the literature review reveals that service guarantees are often used concurrently with other signals. In this respect, Sarel and Marmorstein (2001) suggest that service guarantees are effective when combined with concerted effort of employees. The authors, therefore, imply that service guarantees and employee efforts should be used concurrently. Similarly, the literature shows that service guarantee often function concurrently with firm reputation signal (e.g., Wirtz *et al.*, 2000; Wu *et al.*, 2012). Notably, research evidence suggests that customer responses to service guarantee signals is often contingent upon the information conveyed by firm reputation.

For instance, in a study of service guarantee and reputation signals in the hotel context, Wirtz *et al.* (2000) show that service guarantees lead to enhanced perceptions of quality when offered by firms with good reputation. The same effect, however, does not hold when hotels with outstanding reputation are considered. The authors ascribe the above finding to the fact that the offer of a service guarantee appears redundant when firms have outstanding reputation. In this sense, the reputation of the hotel provides sufficient information for assessing quality. Consequently, service guarantee signal does not lead to further enhancements of quality perceptions.

Prior signaling research explains customer responses to multiple signals through the lens of the cue diagnosticity framework (Slovic and Lichtenstein, 1971). Consistent with the framework, product quality assessments entail a process of categorization of available quality cues (or signals). In such process, signals are inspected for diagnosticity, namely the extent to which signals allow customers to discriminate quality. Diagnostic signals are used more frequently and influence customer evaluations

of other signals being used concurrently. Accordingly, in a study of customer responses to situations when product warranty and firm reputation signals of quality are used concurrently, Purohit and Srivastava (2001) show that firm reputation is a diagnostic signal, and it influences customer evaluations of product warranty. In a similar way, in Wirtz *et al.* (2000), firm reputation signal seems to influence customer responses to service guarantee.

The above evidence on the interaction of service guarantees and firm reputation confirms that, in any situation, the same signaler (i.e. the firm) typically uses multiple signals (Connelly *et al.*, 2011). The concurrent use of several signals inevitably influences customer perceptions, as evidenced by a number of studies in marketing research (a summary is provided in Table B2.4 in Appendix C). Research that investigates customer responses to situations when a firm uses multiple signals is so far sparse. In particular, research that examines customer responses to service recovery encounters where multiple signals are employed concurrently is lacking. A number of scholars highlight the need to further research that investigates the nature of interactions between signals and consequent effects on customer perceptions (Basuroy *et al.*, 2006; Connelly *et al.*, 2011; Fang *et al.*, 2013). In this respect, an important consideration that has received scarce scholarly attention is what types of signals are likely to interact in shaping customer perceptions. Kirmani and Rao (2000) and Basuroy *et al.* (2006) argue that customers perceive signals of different types as credible. The authors argue that signals fulfilling different functions are likely to lead to meaningful interactions and should be explored in future research.

**Table B2.3** Research mentioning service guarantee as a signal

<b>Author(s)</b>	<b>Key Finding(s)</b>	<b>Key Limitation(s)</b>
Hart (1988)	<ul style="list-style-type: none"> <li>• Five characteristics of meaningful service guarantee signals; (1) unconditional, (2) easy to understand, (3) financially meaningful, (4) easy to invoke and (5) quick to collect payout.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of empirical evidence on the impact of the five characteristics on consumer responses to guarantee signals.</li> </ul>
McDougall <i>et al.</i> (1998)	<ul style="list-style-type: none"> <li>• Guarantee signal is preferred when specific (vs. unconditional).</li> <li>• Fair settlement such as money back is important to consumers.</li> </ul>	<ul style="list-style-type: none"> <li>• Issues of recall bias related to the method.</li> <li>• Lack of empirical evidence on the impact of fair settlement on consumer responses to guarantee signals.</li> </ul>
Kandampully & Butler (2001)	<ul style="list-style-type: none"> <li>• Guarantee signals can influence customer satisfaction, trust and loyalty.</li> <li>• Prompt service recovery, through the implementation of a service guarantee, should enable firms to reduce NWOM.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of empirical evidence on how service recovery is implemented through service guarantees.</li> </ul>
Björllin Lidén & Edvardsson (2003)	<ul style="list-style-type: none"> <li>• Customers expect clarity of terms and fairness of service guarantee signals.</li> <li>• Suspicion arises when guarantees are introduced in order to acquire new customers.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of empirical evidence on how guarantees influence fairness perceptions and customer suspicion.</li> </ul>
Björllin Lidén & Skålen (2003)	<ul style="list-style-type: none"> <li>• Guarantees influence employee recovery efforts.</li> </ul>	<ul style="list-style-type: none"> <li>• Need to examine how recovery is implemented through service guarantee.</li> </ul>
Hogreve and Gremler (2009)	<ul style="list-style-type: none"> <li>• Review of research on guarantees highlights the increasing interest in understanding the impact of service guarantee signals on consumer behaviour.</li> </ul>	<ul style="list-style-type: none"> <li>• Address calls for research that examines service guarantee signals in service recovery.</li> </ul>
McQuilken <i>et al.</i> (2013)	<ul style="list-style-type: none"> <li>• Recovery compensation, fix and failure severity jointly influence customers' perceptions of distributive justice when a guarantee is offered.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not consider the ease of invoking the guarantee.</li> </ul>
Berman & Mathur (2014)	<ul style="list-style-type: none"> <li>• Service guarantees benefit firms by signaling quality, setting performance standards, providing data on failures and by regaining customers.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of empirical evidence.</li> </ul>
Van Vaerenberg <i>et al.</i> (2014)	<ul style="list-style-type: none"> <li>• Customers invoke the guarantee after unsuccessful recovery.</li> <li>• Collectivist societies invoke the guarantee even after successful recovery.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not consider that service recovery can be implemented through service guarantees.</li> </ul>

## B2.4 CONCLUSIONS ON SIGNALING IN MARKETING RESEARCH

Chapter B2 provided a critical review of the marketing research employing Signaling Theory. The review reveals that Signaling Theory represents a relevant theoretical framework in explaining customer perceptions towards marketing strategies, such as branding, reputation, service guarantees, and advertising. These marketing strategies function as signals in conditions of information asymmetry, wherein customers lack information about the product/service quality and about the attributes of the firm. In such conditions, marketing signals lower customer uncertainty, and encourage the customer to select the signaling firm. A number of areas worthy of further investigation emerge from the review in Chapter B2. These areas are discussed throughout the chapter, and are summarised, in turn, for clarification.

First, a large body of marketing research employing Signaling Theory examines customer perceptions of *product* signals (see discussion in Section B2.3). By contrast, empirical research that investigates customer perceptions of service signals remains sparse. A number of scholars, however, acknowledge that signaling is particularly relevant in service encounters (e.g., Dutta *et al.*, 2007; Jha *et al.*, 2013). Due to the intangibility of services, the attributes of services are often unobservable (Herbig and Milewicz, 1994). Consequently, customers perceive uncertainty related to the purchase of services. Signaling can lower such uncertainty.

Second, there is breadth of research that examines the impact of marketing signals on customer *quality* perceptions and *purchase* decisions (see discussion in Section B2.3). There are isolated studies that examine customer outcomes other than quality perceptions, such as satisfaction and trust (e.g., San Martín and Camarero, 2005; Atkinson and Rosenthal, 2014), and post-purchase decisions (e.g., Dutta and Biswas, 2005). However, there are no studies that address signaling processes following service failures. Signaling is important following service failures. Service guarantee signals are especially relevant following service failures and at the recovery stage (e.g., McQuilken *et al.*, 2013; Van Vaerenberg *et al.*, 2014). At the recovery stage, marketing signals may lower information asymmetry and customer uncertainty related to the decision to revisit the same firm or to defect.

Third, the review of the literature reveals that the same signaler often uses multiple signals concurrently. The concurrent use of multiple signals inevitably influences customer perceptions (Connelly *et al.*, 2011). Research has made some progress on elucidating how customers respond to situations when multiple signals are

used, for instance, service guarantee and reputation for quality (e.g., Wirtz *et al.*, 2000). Notwithstanding, scholars concur that further research in this area is needed (e.g., Basuroy *et al.*, 2006; Fang *et al.*, 2013). In a recovery context, factors internal and external to the recovery encounter may function as signals in shaping customer perceptions.

Having established the precepts of Signaling Theory and the relevance of this theory in explaining the role of service guarantees in service recovery encounters, the attention now turns to the body of research on customer trust – a core construct in this thesis. Chapter B3 includes a critical review of extant research on customer trust, with a particular emphasis on the conceptualisation and operationalization of trust in extant marketing research.

**CHAPTER B3: RESEARCH ON CUSTOMER TRUST****B3.1 INTRODUCTION AND OUTLINE OF THE CHAPTER**

As discussed in Chapter B1 of this thesis, trust represents an important yet overlooked outcome of perceived justice in service recovery. This thesis argues that perceived justice elicited by organisational policies and employee actions at the recovery stage can influence post-recovery trust. Customer trust is a core concept in this thesis and it is discussed in Chapter B3. The discussion in Chapter B3 focuses on the conceptualisation and operationalization of trust in prior research. The review draws on the literature in social psychology, from which the concept of customer trust originates, and the literature in marketing, which is pertinent to the domain of the research in this thesis.

The outline of Chapter B3 is as follows. First, the concept of customer trust is defined. This part of the chapter focuses on existing definitions of trust, and the types of trust identified in the fields of social psychology and marketing. Second, the operationalization of the trust construct is discussed. In this part, the advantages and limitations of four well-known measures of customer trust are presented. Third, the conceptualization and operationalization of customer trust in extant service recovery research is discussed. Finally, conclusions are drawn. The reader is reminded that the discussion in Chapter B3 focuses on the conceptualisation and operationalization of trust, not on providing a critical review of the studies cited throughout the chapter.

### **B3.2 DEFINITIONS OF CUSTOMER TRUST IN SOCIAL PSYCHOLOGY AND MARKETING**

The concept of trust originates from research in the domain of social psychology (e.g., Rotter, 1967; Johnson-George and Swap, 1982; Lewis and Weigert, 1985; Rempel, Holmes and Zanna, 1985). In this domain, scholars have defined trust as 'expectancy', 'willingness', 'feelings of confidence' and 'a functional prerequisite of society' (see summary of definitions in Table B3.1 at the end of this section). Whilst seemingly divergent, the above definitions share two core ideas. A first idea is that decisions about trust involve two parties - the 'trustor' and the 'trustee'. The trustor makes the decision to trust, whereas the trustee is the party wishing to be trusted. Importantly, by making the decision to trust, the trustor accepts vulnerability based on expectations that the trustee will behave in a particular manner. A second idea is that trust is vital for establishing relationships in society, especially under conditions of high uncertainty. When uncertainty is high, the trustor is more likely to accept vulnerability and thus to trust the trustee's words and/or actions.

Similar to the above definitions in social psychology research, marketing scholars refer to trust as a 'willingness to be vulnerable to the other party's actions', and as an 'intention to accept vulnerability as a consequence of the actions or attributes of the trustee'. In this domain, a number of scholars have equated trust with cooperation and trustworthiness. Whilst related, the concepts of trust, cooperation and trustworthiness are distinct. With regards to cooperation, Mayer, Davis and Schoorman (1995) explain that cooperative behaviour does not necessarily indicate trust. Employees may cooperate with co-workers who are not trusted. Moreover, unlike trust, cooperation does not create vulnerability on the trustor. Cooperation and trust should therefore be treated as separate concepts. Turning to trustworthiness, Kim, Dirks and Cooper (2009) explain that trust and trustworthiness are indeed distinct and separate concepts. Whilst trust is the trustor's *belief* in the trustee, trustworthiness is an *attribute* of the trustee (e.g., Mayer *et al.*, 1995; Morrow, Hansen and Pearson, 2004; Kim *et al.*, 2009). It follows that trustworthiness can be the rationale for the trustor's decision to trust. In other words, the trustor decides to trust on the basis that the trustee is trustworthy. For instance, in organisational research, McAllister (1995) shows that managers trust peers on the basis of their trustworthiness.

The literature identifies three main facets of trustworthiness, namely ability, benevolence and integrity. Ability entails the '*group of skills, competencies, and*



*characteristics that enable a party to have influence within some specific domain*' (Mayer *et al.*, 1995, p. 717). Colquitt, Scott and LePine (2007) refer to ability as a "can do" facet of trustworthiness, by which the trustee portrays the skills and competence of dealing with the trustor. Ability and competence are used interchangeably in the literature. Benevolence denotes *'the extent to which the trustee is believed to want to do good to the trustor, aside from an egocentric profit motive'* (Mayer *et al.*, 1995, p. 718). Benevolent behaviour indicates a positive orientation of the trustee towards the trustor. Finally, integrity indicates *'the trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable'* (Mayer *et al.*, 1995, p. 719). In particular, issues of integrity relate to aspects of consistency and credibility. Colquitt *et al.* (2007) refer to benevolence and integrity as "will do" facets of trustworthiness, by which the trustee's intentions to act in a manner that is expected by the trustor are portrayed. Given that the decision to trust is based upon the trustor's assessments of the trustee's trustworthiness, trustworthiness is essential for understanding trust.

In summary, the discussion above indicates that the concept of trust has received notable attention in social psychology research first, and in marketing research later. In both research domains, scholars have offered several definitions of trust. Consequently, no single, unique definition of trust can be found in the literature. The array of trust definitions reflects the multifaceted nature of the trust construct, as discussed in the section below.

**Table B3.1** Definitions of trust in social psychology and marketing research

Author(s)	Type of study	Definition(s) of Trust
Rotter (1967, p. 651)	E	An <i>expectancy</i> that the word, promise, verbal or written statement of an individual or group can be relied upon.
Johnson-George and Swap (1982, p. 1306)	E	<i>A willingness to take risks</i>
Rempel (1985, p. 96)	E	<i>Feelings of confidence</i> in the caring responses of the partner – three components: <i>predictability, dependability and faith.</i>
Lewis and Weigert (1985, p. 968)	C	<i>A property of collective units</i> – a functional prerequisite of society
McAllister (1995, p. 25)	E	<i>Confidence</i> and <i>willingness</i> to act on the basis of, the words, actions, and decisions of another
Mayer <i>et al.</i> (1995, p. 712)	C	The <i>willingness to be vulnerable</i> to the actions of another party
Morrow <i>et al.</i> (2004, p. 49)	E	The <i>belief that others will not act to exploit one's vulnerabilities.</i>
Johnson and Grayson (2005, p. 501)	E	The <i>confidence</i> or <i>willingness</i> to rely on another's competence and reliability, and on the basis of <i>feelings</i> resulting from the <i>care and concern</i> demonstrated.
Colquitt <i>et al.</i> (2007, p. 909)	E	The <i>willingness</i> to be vulnerable to the actions of a trustee. A <i>psychological state</i> comprising <i>intentions</i> to accept vulnerability.
Ennew and Sekhon (2007)	E	The <i>willingness to accept vulnerability</i> in a situation characterised by interdependence and risk.
Tullberg (2008, p. 2061)	C	A compound of several elements
Kim <i>et al.</i> (2009, p. 401)	C	A <i>psychological state</i> comprising the <i>intention</i> to accept vulnerability based on <i>positive expectations</i> of the intentions or behaviour of another.
Sekhon <i>et al.</i> (2013, p. 77)	E	<i>A situational factor</i> and <i>a consequence of the actions of a trustee</i> , i.e. actions that demonstrate trustworthiness.

**Note:** E=Empirical; C=Conceptual

### B3.3 CONCEPTUALISATION OF TRUST

Over the years there has been much debate centred on the definitions of trust, and the conceptualisation of this construct. Scholars across several disciplines, from psychology to management and marketing, largely concur that trust is a multifaceted construct (e.g., Kim *et al.*, 2009; Sekhon *et al.*, 2013). Consistent with the above idea, the literature refers to several types of trust – cognitive, affective, calculative, behavioural and overall trust. Alternatively, trust is defined as a disposition (or propensity) of individuals. Each of the types of trust are reviewed in detail below. The review clarifies what trust constitutes. This thesis employs some of the types of trust discussed below (see also Chapter D2).

#### *Disposition to Trust*

Disposition to trust stems from the work of Rotter (1967) on personality. The author defines trust as '*an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon*' (Rotter, 1967, p. 651). Although the above definition of trust includes the trustor's *expectation* that the trustee will behave in a certain manner, in his work, Rotter (1967) refers to trust as a propensity or disposition of individuals. Accordingly, Rotter's Interpersonal Trust Scale (ITS) measures trust as a disposition of individuals. Disposition to trust is a stable characteristic of the individual, akin to a personality trait, as opposed to a situational state (Mayer *et al.*, 1995; Colquitt *et al.*, 2007). In this sense, individuals with high disposition to trust are (by nature) more willing to trust than individuals with low disposition to trust. Disposition to trust is found to be a determinant of trust, especially in situations where cues about trustee's trustworthiness are absent (Johnson and Grayson, 2005; Sekhon *et al.*, 2013).

#### *Cognitive Trust*

Cognitive trust originates from the idea that decisions to trust are cognitive in nature. The trustor goes through a cognitive process of evaluating the characteristics of the trustee in order to decide whether to show trust or not (e.g., Lewis and Weigert, 1985; Sekhon *et al.*, 2013). Through such cognitive process, the trustor accumulates knowledge about the trustee. Based on the accumulated knowledge, the trustor is able to discriminate amongst trustees that are '*trustworthy, distrusted or unknown*' (Lewis and

Weigert, 1985, p. 976). In the domain of organisational research, McAllister (1995) describes cognitive trust as the outcome of the trustor's evaluation of extant evidence on the trustworthiness of the trustee. In services marketing literature, cognitive trust is described as the customer confidence that a service provider is competent and reliable (Johnson and Grayson, 2005). Overall, the cognitive perspective on trust makes two fundamental assumptions. A first assumption is that individuals are rational, and have the cognitive capabilities to evaluate the trustworthiness of the trustee, and to make decisions about trust. A second assumption is that cues about the trustworthiness of the trustee are available, such that the trustor is able to make decisions about trust.

### *Calculative Trust*

Building on the idea that the decision about trust entails a cognitive process, scholars have introduced the concept of *calculative* trust. Calculative trust entails a cognitive process, whereby the trustor assesses the cost the trustee is likely to incur by behaving in an untrustworthy manner (Doney and Cannon, 1997). Unlike cognitive trust, calculative trust comprises an assessment of the costs associated with untrustworthy behaviour. As pointed out by Johnson and Grayson (2005) in a study of cognitive and affective trust in service relationships, calculative trust is typical of buyer-seller relationships. This is because contractual arrangements are often involved in buyer-seller relationships, thus the party making the decision to trust is often knowledgeable about the behaviour and intentions of the other party in the relationship. On the contrary, customer-firm relationships involve information asymmetry, whereby the firm is more knowledgeable of its own attributes and of the attributes of the service than the customer does. Hence, calculative trust is less pertinent to customer-firm relationships.

### *Affective Trust*

A number of scholars argue that trust is not only construed on cognitive foundations, but on emotional ones as well (e.g., Johnson-George and Swap, 1982; Lewis and Weigert, 1985; Johnson and Grayson, 2005; Sekhon *et al.*, 2013). Research on customer trust therefore identifies a second component of trust, known as 'affective trust'. In social psychology, scholars refer to emotions and faith (i.e. feelings of emotional security) as indicators of affective trust (e.g., Johnson-George and Swap,

1982; Rempel *et al.*, 1995). Research in sociology also acknowledges that trust entails an emotional component. In their seminal article discussing a sociological perspective on trust, Lewis and Weigert (1985) refer to affective trust as '*an emotional bond among all those who participate in the relationship*' (p. 971). Similarly, a number of scholars in services marketing research concur on the relevance of affective trust in customer-firm relationships (e.g., Johnson and Grayson, 2005; Sekhon *et al.*, 2013). In this domain, prior studies argue that decisions about affective trust in customer-firm relationships are based on the care and concern displayed by the trustee (i.e. the service firm).

Whilst scholars concur on the significance of the affective component of trust, the viewpoints on the causality between cognitive and affective trust are conflicting. A number of scholars in social psychology research argue that affective trust builds upon cognitive trust (e.g., Lewis and Weigert, 1985; Rempel *et al.*, 1985). Based on the above argument, cognitive trust acts as a base for building and sustaining affective trust. In other words, the reliability of the trustee (cognitive trust) needs to be ascertained before an emotional bond can be developed (affective trust). Consistent with the above argument, a number of studies in services marketing literature examine cognitive trust as a precursor of affective trust (e.g., Johnson and Grayson, 2005; Sekhon *et al.*, 2013). A contrasting viewpoint is that a reversed causation between cognitive and affective exists, whereby affective trust influences cognitive trust (e.g., Zajonc and Markus, 1980; McAllister, 1995). This view stems from attitude theory and the idea that affect is persistent and left unquestioned over time. In order to reconcile the above divergence in viewpoints, it seems reasonable to presume that the relationship between cognitive and emotional components of trust might be bidirectional. Notably, the cognitive and emotional components of trust are distinct, yet complementary.

### *Behavioural Trust*

Behavioural trust entails the behavioural enactment of trust. Lewis and Weigert (1985) define behavioural trust as the '*undertaking of a risky course of action on the confident expectation that all persons involved in the action will act competently and dutifully*' (p. 971). The authors argue that the behavioural enactment of trust is likely to engender reciprocity on the party being trusted who will, in response, show trust as well. The distinction between cognitive, affective and behavioural components of trust has been a topic for discussion in marketing research. Some scholars argue that the

behavioural enactment is an important component of trust (Moorman *et al.*, 1992). This is because the belief that a partner in the relationship is trustworthy is not sufficient for trust to exist, as the behavioural enactment of trust is necessary. In contrast to the above viewpoint, Morgan and Hunt (1994) argue that behavioural trust is implicit in cognitive and affective trust. Based on this argument, the trustor's confidence in the trustee implies a willingness to show trust (behavioural trust). Hence, behavioural trust is not an essential component of trust. Moreover, the authors contend that behavioural trust entails behavioural intentions and should be treated as outcome of trust beliefs. The above contention is in line with Ajzen's theory of planned behaviour (Ajzen, 1991), suggesting that behavioural intentions are outcomes of attitudes.

### *Overall Trust*

The concept of overall trust is akin to Morrow *et al.*'s (2004) 'general trust', namely '*an overall belief that another individual, group or organization will not act to exploit one's vulnerabilities*' (p. 50). Consistent with the above definition, overall trust denotes trust in a broad sense. Research argues that the conceptualisation of overall trust embeds cognitive and affective components of trust. The relative influence of cognitive and affective components often varies according to the context under investigation, past experience of the trustor and the costs involved in engaging in a cognitive assessment (Morrow *et al.*, 2004; Sekhon *et al.*, 2013). For instance, the greater the costs of cognitively assessing trust, the more customers are likely to rely upon affective trust.

Based on the discussion above, it is evident that trust is a multifaceted construct. Disposition to trust is akin to a personality trait. By contrast, cognitive, affective, behavioural and overall trust are akin to attitudes and behavioural intentions. The multifaceted nature of trust is reflected in the ways marketing scholars measure this construct. From the literature review, two approaches to measure trust are identified. Based on the first approach, trust is treated as a multidimensional construct. Based on the second approach, trust is measured a one-dimensional construct. As illustrated in Table B3.2 at the end of this section, eleven studies in marketing research treat trust as a one-dimensional construct (e.g., Crosby, Evans and Cowles, 1990; Doney and Cannon, 1997; Tax *et al.*, 1998; Garbarino and Johnson, 1999; Sirdeshmukh, Singh and Sabol, 2002; Chiou, Droge and Hanvanich, 2002; San Martín and Camarero, 2005; DeWitt *et al.*, 2008; Kim *et al.*, 2009; Sajtos, Brodie and Whittome, 2010; Hansen, 2012).

Following the one-dimensional approach, the above studies mainly capture overall trust, thus the trustor's overall belief in the trustee's confidence. Whilst meaningful, the one-dimensional approach to measuring trust neglects the distinction between the cognitive and affective components, and thus the richness of the trust construct. Eight studies are found that treat trust as a multidimensional construct and embrace cognitive and affective components of trust.

**Table B3.2** Customer trust in marketing research

Author(s)	Operationalization of trust	Conceptualisation of trust
Crosby <i>et al.</i> (1990)	O	Interpersonal Trust
Ganesan (1994)	M	Trust in retailer, Trust in the vendor's representative
Morgan and Hunt (1994)	M	Dyadic Trust
McAllister (1995)	M	Cognitive Trust, Affective Trust
Doney & Cannon (1997)	O	Trust in supplier's firm, Trust of salesperson
Ganesan & Hess (1997)	M	Trust in the vendor's salesperson
Tax <i>et al.</i> (1998)	O	Trust in the firm
Garbarino and Johnson (1999)	O	Trust in the firm
Sirdeshmukh <i>et al.</i> (2002)	O	Trust in management policies, Trust in employees
Chiou <i>et al.</i> (2002)	O	Trust in the firm
Johnson and Grayson (2005)	M	Cognitive Trust, Affective Trust
San Martin and Camarero (2005)	O	Trust in capability, Trust in intentions/values
DeWitt <i>et al.</i> (2008)	O	Overall Trust in the firm
Kim <i>et al.</i> (2009)	O	Overall Trust in the firm
Sajtos <i>et al.</i> (2010)	O	Overall Trust in the firm
Hansen (2012)	O	Broad-scope Trust, Narrow-scope Trust
Sekhon <i>et al.</i> (2013)	M	Cognitive Trust, Affective Trust, Overall Trust

**Note:** O=One-dimensional; M=Multidimensional

### B3.4 MEASUREMENT OF TRUST IN THE LITERATURE

The most widely cited measures of customer trust were developed in 1960s in the field of social psychology. These include the measures of trust offered by Rotter (1967) and Larzelere and Huston (1980). Studies in marketing research have either expanded the above measures by taking into account context-specific aspects, or developed new measures of trust. Ganesan (1994) exemplifies a study in which a new scale of retailer-vendor trust was developed. This section provides a brief overview of the trust scales offered by Rotter (1967), Larzelere and Huston (1980), and Ganesan (1994). The discussion clarifies how the literature measures customer trust. This thesis employs one of the measures discussed below (see also Chapter D2).

#### *Interpersonal Trust Scale (ITS)*

The twenty-five-item Interpersonal Trust Scale (ITS) was proposed by Rotter (1967) in the field of social psychology. Rotter (1967, 1971, 1980) conceived trust as a disposition of individuals. Alternative denominations of this type of trust are *dispositional trust* (Kramer, 1999), and *trust propensity* (Mayer *et al.*, 1995). Despite its recognition in the literature, ITS is not short of criticisms. A main criticism is that ITS captures the individual's *propensity* to trust another person, yet it does not account for the *actual* trust shown by an individual under given circumstances (e.g., Johnson-George and Swap, 1982; Rempel *et al.*, 1985; Mayer *et al.*, 1995; Colquitt *et al.*, 2007; Hansen, 2012). Sharing the above viewpoint, Crosby *et al.* (1990) argue that ITS taps into an individual's tendency to trust, but it overlooks an individual's trust in another party, and specifically, in a business context.

Seeking to address the above criticisms related to ITS, Johnson-George and Swap (1982) proposed the Specific Interpersonal Trust Scale (SITS). SITS was intended as a refined measure of interpersonal trust. As the denomination of the scale indicates, SITS captures trust in a specific other. Based on SITS, interpersonal trust entails four components: trusting another with personal confidences, trusting another with personal safety, trusting another with material possessions and a belief in other's reliability. Nonetheless, both ITS and SITS restrict the measurement of trust to the context of intimate relationships. The question of whether ITS and SITS can be used to measure trust in business relationships therefore arises. Moreover, SITS does not specify the roles of the trustor and trustee, and thus the level of analysis is obfuscated (Mayer *et al.*, 1995).



*Dyadic Trust Scale*

Unlike Rotter's (1967) ITS scale that measures trust as a personality trait, Larzelere and Huston's (1980) dyadic scale measures trust as a *belief*. Larzelere and Huston (1980) conceived trust as '*the benevolence and honesty of a significant other toward the individual making the (trust) judgment*' (p. 596). This scale measures trust as a belief held by one party that future intentions of a partner are believable (honesty) and that the partner is interested in mutual gains (benevolence). This eight-item scale of dyadic trust was developed in the context of intimate relationships. In management research, Mayer *et al.* (1995) proposed a refined dyadic trust scale that encompasses factors specific to the organizational context. Studies in the marketing literature adopted the dyadic trust scale in order to measure trust in buyer-seller relationships (e.g., Morgan and Hunt, 1994), and customer trust in a company (e.g., Kim *et al.*, 2009; Sajtos *et al.*, 2010).

*Retailer-Vendor Relationships Trust Scale*

A widely adopted measure of customer trust in the marketing literature is the retailer-vendor trust scale developed by Ganesan (1994). Ganesan (1994) conceived trust as '*the willingness to rely on an exchange partner in whom one has confidence*' (Ganesan, 1994, p. 3). Consistent with the above definition, trust denotes a belief and/or an expectation that an exchange partner will show credibility and benevolence. Credibility taps into beliefs that a party in the exchange has the expertise and the competence to perform a certain task. Benevolence taps into beliefs that the trustee has positive intentions about the (business) relationship with the trustor. In the above-mentioned scale, Ganesan (1994) draws a distinction between trust in the retailer and trust in the vendor. Such a distinction is based on the assumption that decisions to trust vary according to the *referents* of trust, whether the referent is the 'retailer' or the 'vendor'.

Whilst widely used, the retailer-vendor trust scale is not short of limitations. A first limitation is that the retailer-vendor relationship scale was originally developed and tested in the context of business-to-business relationships only. The question of whether the scale can be adopted to measure customer-firm relationships inevitably arises. A number of studies have tested the retailer-vendor trust scale in the context of customer-firm relationships (e.g., Sirdeshmukh *et al.*, 2002; San Martín and Camarero, 2005). A second limitation is that the aspects of credibility and benevolence are often highly

correlated (Doney and Cannon, 1997). Ganesan (1994), however, provides evidence of discriminant validity between credibility and benevolence. Following on the above, the attention now turns to the measurement of trust in service recovery research – the domain of the research in this thesis.

### **B3.5 MEASUREMENT OF CUSTOMER TRUST IN SERVICE RECOVERY RESEARCH**

As discussed in Chapters B1 and B2, trust is important in the context of unsatisfactory service experiences. In a seminal article on trust in the context of close relationships, Rempel *et al.* (1985) emphasise the pivotal role of trust in managing conflict and state, '*the most opportune time to examine trust may occur when stress or conflict has created a situation where confidence in the other is an issue*' (p. 111). Given that service failures represent situations of conflict between the customer and the firm, trust is relevant in the context of service failure and recovery encounters. Perceived fairness is found to be a key precursor of customer trust, in the context of successful as well as unsuccessful service encounters. In a study of customer trust with banking services, Sekhon *et al.* (2013) show that customer trust is fostered when banking institutions communicate security, transparency as well as fairness during service transactions. Similarly, four studies find empirical support for the impact of perceived fairness on customer trust, following service failure and recovery encounters (Tax *et al.*, 1998; Ok *et al.*, 2005; Kau and Loh, 2006; DeWitt *et al.*, 2008; Kim *et al.*, 2009). The conceptualisation and measurement of trust in the above five studies is the focus of the discussion in this section.

Three of the above-cited studies measure trust as an indirect outcome of perceived fairness, through the mediation of satisfaction (e.g., Tax *et al.*, 1998; Ok *et al.*, 2005; Kim *et al.*, 2009). Consistent with the idea that satisfaction mediates the perceived fairness-trust relationship, Tax *et al.* (1998) and Kim *et al.* (2009) argue that trust is *reinforced* in service recovery encounters. This is the result of learning from conflicts, such as service failures, and a history of satisfactory encounters that enhances perceived reliability of the service provider. Based on the above argument, the assumption is made that trust increases over time and because of multiple satisfactory recovery encounters. Whilst implying the passage of time, the above-cited studies are based on cross-sectional rather than longitudinal research. Claims that trust is reinforced following service recovery encounters thus appear questionable.

By contrast, DeWitt *et al.* (2008) measure trust as a direct outcome of perceived fairness of service recovery, and as a mediator in the perceived fairness-loyalty link. In its mediating role, trust is described as a fundamental mechanism to building customer loyalty. In its direct link with perceived justice, trust represents a form of customer reciprocation to the justice rendered by the firm. The authors define trust as the '*customer willingness to accept vulnerability on the basis of a positive expectation of the service failure resolution*' (DeWitt *et al.*, 2008, p. 272). Based on the above definition, it seems reasonable to expect that customer *after* the service failure, but *before* service recovery is enhanced. This is because customers are likely to hold expectations of service failure resolution prior to the service recovery encounter. However, DeWitt *et al.* (2008) measure trust after service recovery. The authors explain that trust is engendered when service recovery *validates* earlier decisions to select the service provider. In other words, fair service recovery validates that the customer made the right decision by selecting the service provider. Moreover, the same study measures justice as a global construct that combines three types of justice - distributive, procedural and interactional. The above three types of justice, however, have different theoretical underpinnings (see discussion in Chapter B1 of this thesis). Moreover, the use of an overall construct of justice obscures the relative effect of the single types of justice on customer trust. The decision to aggregate the three types of justice into a single latent variable of trust thus appears problematic. Overall, none of the studies in service recovery literature draws on the distinction between referents of trust earlier advocated in the literature on trust (e.g., Ganesan, 1994; Sirdeshmukh *et al.*, 2002).

In summary, service research recognises the importance of trust in situations of conflict. Service failures exemplify conflict situations. It follows that trust is relevant in service failure and recovery encounters. Notwithstanding, research that investigates customer trust in service failure and recovery encounters is limited to a handful of studies. Whilst making progress on elucidating the role of customer trust in service recovery, existing studies present limitations related to the conceptualisation of trust.

### B3.6 CONCLUSIONS ON CUSTOMER TRUST

Chapter B3 provided a review of the literature on customer trust focusing on reviewing the existing definitions and the types of customer trust in the fields of social psychology and marketing, and on the conceptualisation and operationalization of this construct in prior studies. The review of the literature reveals that there is no single, unique definition of trust (see discussion in Section B3.2). For instance, research has defined trust as a disposition of individuals (Rotter, 1967), as a belief in the trustworthiness of the other party in the relationship and as a willingness to take risk (e.g., Mayer *et al.*, 1995; Morrow *et al.*, 2004). The divergence on the definitions of customer trust can be reconciled by acknowledging that trust is a multifaceted construct. Consistent with the multifaceted nature of trust, the literature distinguishes between several types of trust - disposition to trust, cognitive, calculative, affective, behavioural and overall trust (see discussion in Section B3.3). Despite acknowledging that trust is a multidimensional construct, service recovery research largely treats trust as a one-dimensional construct.

Further, the literature review suggests that decisions to trust vary according to trust referents (e.g., Ganesan, 1994; Sirdeshmukh *et al.*, 2002). For instance, customers show differential trust in frontline employee behaviour and in management policies (Sirdeshmukh *et al.*, 2002). Extant service recovery research has thus far overlooked the distinction between trust referents. This is possibly due to the paucity of research that examines customer trust in service recovery. At the recovery stage, customers may indeed show differential trust in the firm and its management policies, and in frontline service employees. The issue of whether measuring trust as a multidimensional, referent-specific construct can further insights on how customers evaluate and respond to service recovery encounters is relevant for theoretical advancements, yet it remains unresolved. Building on the discussion in Chapters B1-B3, Chapter B4 turns the attention to the research gaps emerging from the critical review of three streams of research – perceived justice in service recovery, signaling in marketing research, and marketing research on customer trust.

## **CHAPTER B4: OVERALL CONCLUSIONS FROM THE LITERATURE REVIEW AND RESEARCH GAPS**

Chapter B4 concludes Part B of this thesis. In this chapter, overall conclusions from the critical review of the literature are drawn and the identified research gaps are presented.

### **B4.1 SUMMARY OF CONCLUSIONS FROM THREE RESEARCH STREAMS**

Part B of this thesis includes a critical review of three streams of research – perceived justice in service recovery research, signaling in marketing research and research on customer trust. The reader is reminded that service failure and recovery management is broadly the domain of the present research. Market signaling is a relevant research domain to explain the role of service guarantee policies and their interplay with employee behaviour in service recovery encounters. This provides a rationale for reviewing the literature in marketing signaling. A review of the literature on customer trust informs the measurement of the related construct in this thesis.

The conclusions drawn from the three research streams are presented at the end of each chapter in Part B (see Chapters B1-B3) and are summarised in this section for clarification. The conclusions drawn from each of the three research streams are summarised below, before stating the consequent research gaps in section B4.2.

#### *Research Stream 1: Perceived Justice in Service Recovery*

In this body of literature, the Justice Theory is identified as a relevant theoretical framework in explaining the psychological processes underlying customer evaluations of service failure and recovery encounters. Early applications of Justice Theory are in organisational studies. Organisational literature distinguishes between four types (or dimensions) of justice - distributive, procedural, interpersonal and informational. Whilst acknowledging the relevance of the above four types of justice, service recovery research inconsistently conceptualises justice as a one-, two-, three- or four-dimensional construct. Such inconsistency makes the comparison of research findings challenging. Moreover, only a few studies distinguish between interpersonal and informational types of justice. The above distinction is, however, meaningful and can reveal additional drivers and outcomes of justice in service failure and recovery encounters.

A review of the literature on the drivers and outcomes of justice perceptions in service recovery reveals that existing studies have directed much attention towards understanding how employee recovery efforts shape customer perceptions of recovery fairness, and the impact of fairness perceptions on customer satisfaction. However, extant research overlooks situations where employee recovery efforts are constrained by organisational policies, such as service guarantees. Similarly, systematic research that examines relational variables, such as customer trust, as outcomes of perceived justice in service recovery is currently lacking. Gaining an understanding of the interplay between organisational policies and employee efforts, and their impact on customer trust is, therefore, relevant for the advancement of related knowledge.

Finally, the review of the literature suggests that factors external to the service recovery encounter can influence customer perceptions, and consequently, either hinder or enable service recovery success. Firm reputation and causal attributions are important in relation to perceptions of fairness. Notwithstanding, the above two factors have received limited attention from prior research.

### *Research Stream 2: Signaling in Marketing*

The review of the literature suggests that Signaling Theory is a relevant theoretical framework in explaining customer evaluations of service guarantee policies. Several studies in this domain describe signaling processes in product markets. Concurrently, a growing number of scholars acknowledge that signaling processes can be even more relevant to service markets. In particular, the usefulness of signals in shaping customer quality perceptions and purchase decisions has so far been investigated and ascertained. In a few studies, customer satisfaction and trust are established as outcomes of signaling. Conversely, there is lack of research that investigates how signaling shapes customer repurchase decisions, especially when service failures occur and customer uncertainty related to repurchase decisions increases. Service guarantees are particularly relevant at the recovery stage, when these policies are invoked.

Furthermore, the signaling literature recognises that same firm or different firms within the same environment (in their role of 'signalers') often use multiple signals concurrently. Accordingly, customers (in their role of 'receivers') process information conveyed by a multitude of signals. In these instances, a relevant issue for theoretical purposes is whether and how consumers interpret multiple signals. In this respect,

extant research has only marginally addressed how multiple signals are used concurrently, and how their interaction influences customer responses to signaling.

### *Research Stream 3: Customer Trust*

A review of the literature on customer trust reveals that there is divergence in prior studies on the definitions of trust. Such divergence can be attributed to the multifaceted nature of the trust construct. Consistent with the view that trust is a multifaceted construct, studies distinguish between facets of trust, such as cognitive and affective trust. Whilst capturing the richness of the trust construct, the multidimensional approach to conceptualising trust has been overlooked in prior service recovery research. Furthermore, the review of literature suggests that customers distinguish between trust referents. For instance, customers form differential trust judgments depending on whether the 'firm' and the 'employee' act as trust referents. Whilst providing scope for broadening knowledge on how customers form trust, the above-discussed duality of trust referents has so far been overlooked in service recovery research.

## **B4.2 RESEARCH GAPS**

The literature review in Chapters B1-B3 has led to the identification of four main research gaps. This section encapsulates each of the identified research gaps.

### **RESEARCH GAP 1: Service Guarantee as a Recovery Strategy**

Extant service recovery research emphasises the role of service employees in delivering fair recovery efforts (e.g., Tax *et al.*, 1998; Chebat and Slusarczyk, 2005; Roschk and Kaiser, 2013). However, prior studies overlook situations where employee recovery efforts are constrained by organisational policies, such as service guarantees. A number of studies advocate the relevance of service guarantee policies as recovery strategies, though related empirical evidence is sparse. For instance, Kandampully and Butler (2001) suggest that recovery implemented through service guarantee can reduce negative word of mouth by setting standards about service recovery. Similarly, Björilin Lidén and Skålén (2003) argue that service guarantees set standards for service employees by indicating how service failures should be handled. Additionally, by

conducting focus groups, Björlin Lidén and Edvardsson (2003) note that customers evaluate service guarantees in terms of perceived justice. Despite providing several insights, the above studies do not empirically investigate how service guarantees are employed as recovery strategies, and the effect these policies can have on customer perceptions of justice.

Empirical research investigating service guarantee policies in the context of service failure and recovery encounters is limited to two studies, namely McQuilken *et al.* (2013) and Van Vaerenberg *et al.* (2014). Van Vaerenberg *et al.* (2014) examine how employee recovery efforts shape customer intentions to invoke the guarantee. In the above study, service recovery and guarantees are treated as two separate recovery strategies, and customer justice perceptions are not measured. McQuilken *et al.* (2013) consider customer perceptions of justice towards the compensation set in the guarantee, not towards the invocation process. The invocation process represents an important, yet overlooked dimension of guarantee policies (Hart, 1988; Berman and Mathur, 2014; Meyer *et al.*, 2014). Additionally, McQuilken *et al.* (2013) contend that the compensation set in the guarantee acts as a signal of the firm's commitment to incur its obligation to offer redress, albeit without providing empirical evidence of such signaling process. The above-discussed paucity of empirical research is surprising given the pervasiveness of service guarantees in marketing practice. Importantly, these policies are invoked at the recovery stage and can, therefore, be implemented as recovery strategies. The issues of whether and how fair service recovery can be delivered through service guarantees is theoretically important and represents a research gap.

## **RESEARCH GAP 2: Signaling in Service Recovery**

As discussed in Chapter B2 of this thesis, prior consumer research suggests that service guarantees have a signaling function (e.g., Ostrom and Iacobucci, 1998; Kirmani and Rao, 2000; Wirtz *et al.*, 2000; Wu *et al.*, 2012). The signaling function of service guarantees is explained by the Signaling Theory (Spence, 1974). In their role of signals, service guarantees facilitate customer purchase decisions by means of providing information about the quality of the service and the attributes of the firm. By providing quality information, service guarantees lower customer uncertainty related to purchase decisions, and thus encourage customers to select the signaling firm. Whilst extant research focuses on examining how service guarantees influence customer purchase



decisions (e.g., to select a service provider) by conveying quality information, studies have thus far overlooked how guarantees influence customer *repurchase* decisions (e.g., to revisit a service provider) by conveying information other than quality.

As pointed out by San Martín and Camarero (2005), customers experience uncertainty related to repurchase decisions, when they need to establish whether to revisit the same firm or to switch away. Uncertainty related to repurchase decisions can arguably be heightened when services fail. In such instances, customers desire to be assured that the firm can be trusted to be able to handle service failures and customer complaints. In a similar way, customers need to be assured that service employees are competent in handling service failures, and can be trusted. Given that service guarantees are commonly invoked following service failures and service employees play a crucial role during interactions with customers, the issues of how guarantee policies and employee behaviour signal trustworthiness at the recovery stage, and influence customer repurchase intentions are important for advancements in research. The lack of research addressing the above issues, therefore, represents another knowledge gap.

### **RESEARCH GAP 3: Customer Trust following Service Recovery**

The majority of studies in service recovery literature have thus far focused on testing the impact of perceived justice elicited by employee recovery efforts on customer satisfaction (e.g., Smith *et al.*, 1999; McCollough *et al.*, 2000), and intentions to revisit the firm (e.g., Blodgett *et al.*, 1997; Maxham and Netemeyer, 2002). By contrast, research on the effect of perceived justice on relational constructs such as trust and commitment is limited to a handful of studies (e.g., Tax *et al.*, 1998; DeWitt *et al.*, 2008; Kim *et al.*, 2009). Notwithstanding, so far there is a lack of studies examining customer trust as an outcome of perceived justice elicited by a service guarantee, when this policy is employed as a recovery strategy.

Customer trust is important in the context of service failure and recovery encounters due to two reasons. First, individuals' need for trust is high in the context of uncertain situations. In this respect, Rempel *et al.* (1985) in social psychology research state that '*an interpersonal environment possessing the potential for risk and uncertainty is necessary for the expression of the type of responsive behaviour that fosters trust*' (p. 97). Service failures exemplify situations that create uncertainty. As discussed by Rotte *et al.* (2006) in a study of the trust-loyalty link, service failures and unsatisfactory recovery increase customer uncertainty, including uncertainty related to

trust judgments. Second, as discussed in Chapter B2 of this thesis, trust is an important customer outcome of signaling. San Martín and Camarero (2005) show how signals such as reputation, brand name, a firm's investments in assets and advertising convey the firm's trust. In the above study, signaling enhances customer trust by means of lowering both uncertainty related to the decision to select a service provider (i.e. selection problem) and perceptions that the firm will engage in opportunistic behaviour (i.e. perceived opportunism).

Beyond establishing the relevance of trust in service failure encounters and as an outcome of signaling, the review of the literature reveals that customers differentiate between trust referents. For instance, organisational research distinguishes between leaders and co-workers, as distinct referents of trust (Colquitt *et al.*, 2007). Further, in the context of business-to-business relationships, Doney and Cannon (1997) show that buying organisations form differential trust judgments towards the vendor's organisation and the salesperson. In addition, Sirdeshmukh *et al.* (2002) note that customers show differential trust towards the firm's management policies or frontline service employees. These authors show that customers form trust in the firm when evaluating management policies and procedures, but trust in the employee when evaluating the behaviour of service employees.

The above-discussed duality of trust referents has thus far been overlooked in extant service recovery research. In this domain, trust is conceptualised as an overall attitude of customers towards the firm (e.g., DeWitt *et al.*, 2008; Kim *et al.*, 2009). However, the conceptualisation of trust as an overall attitude can obscure some of the effects of trust antecedents and outcomes. By contrast, accounting for the duality of trust referents may help to explain why complaint handling and service recovery are unsuccessful (see discussion in Part A). Customers may show differential levels of trust towards the firm and the employee. For instance, customers may trust the employee's willingness to resolve the service failure, yet perceive the firm to be untrustworthy. Service recovery research that incorporates the above distinction between referents of trust is, therefore, important for theoretical advancements.

#### **RESEARCH GAP 4: Firm-related and Customer-related Factors influencing Perceptions of Service Recovery**

Extant service recovery research suggests that the effectiveness of service recovery is often contingent upon external factors that function as moderators. Such

factors either enhance or hinder the success of service recovery. These include customer characteristics, such as age, gender, culture and past experience (e.g., Palmer, Beggs and Keown-McMullan, 2000; Hui and Au, 2001; Patterson, Cowley and Prasongsukarn, 2006), firm's characteristics such as its image, brand equity and reputation (e.g., Brady *et al.*, 2008; Hess, 2008) and/or customer attributions about the service failure (e.g., Hess *et al.*, 2003). Amongst the above factors, firm reputation and inferences of motive are most relevant to explaining customer responses to signaling in service recovery, yet have received little attention from prior studies. Each of the above two intervening factors and their relevance to the context of this thesis is explained below.

Firm reputation represents a signal of quality, as evidenced by prior consumer research employing Signaling Theory (e.g., Kirmani and Rao, 2000; Wirtz *et al.*, 2000; San Martín and Camarero, 2005). In the role of signal, firm reputation is shown to influence customer perceptions of quality and evaluations of signals being used concurrently. For instance, when used concurrently with service guarantee signal, firm reputation is found to bias customer evaluations of the service guarantee and related perceptions of quality, satisfaction and loyalty (e.g., Wirtz *et al.*, 2000; Wu *et al.*, 2012; Jha *et al.*, 2013). The above effect is attributed to the adequacy of information contained in the two signals, also termed 'cue diagnosticity' (e.g., Biswas *et al.*, 2002; Basuroy *et al.*, 2006; Wu *et al.*, 2012). Based on signal diagnosticity, consumers direct differential level of attention towards one or the other signal. The above research investigates how the interplay between service guarantee and firm reputation signals influences customer purchase decisions. However, extant research has overlooked situations where service guarantees are employed as recovery strategies and their interplay with firm reputation influences customer repurchase decisions.

Inferences of motives, on the other hand, represent a form of causal attributions. Theoretically grounded in the Attribution Theory (Heider, 1958), inferences of motives represent customer beliefs about the motivations underlying the firm's and/or employee's actions. As discussed in Chapter B1, extant service failure and recovery research has examined three forms of causal attributions, namely locus, stability and controllability, related to service failures (e.g., Swanson and Kelley, 2001; Hess *et al.*, 2003; Van Vaerenberg *et al.*, 2014), yet overlooking customer inferences of motive. An exception is a recent study by Joireman *et al.* (2013), wherein customer inferences of motive are examined in the context of double deviation scenarios. The above study, however, does not take customer perceptions of justice into account. Overall, there is

lack of research that examines inferences of motive in the context of one-off service failure encounters, whereby service guarantees are employed as recovery strategies. Inferences of motives are particularly relevant in explaining how customers form perceptions of fairness when guarantees are offered, as evidenced by the literature on price fairness (e.g., Campbell, 1999) and price guarantees (e.g., Kukar-Kinney *et al.*, 2007). For instance, Kukar-Kinney *et al.* (2007) show that inferences of the motives underlying the firm's decision to offer the price guarantee shape customer perceptions of fairness towards the guarantee policy. In the above study, customers report perceptions of fairness (or unfairness) based on the valence of motives (positive or negative). For instance, customers who believe that the firm offers a guarantee payout in order to serve its own interests of profits (negative motive) may feel treated unfairly.

As discussed above, firm reputation has a signaling function and its interplay with service guarantee policies can influence customer responses to signaling. Similarly, inferences of motives are relevant in explaining customer perceptions of fairness at the recovery stage. Firm reputation and inferred motive are, therefore, important moderating factors that can contribute to explaining customer responses to service recovery implemented through service guarantees. The paucity of research focusing on the above two factors represents a knowledge gap that merits attention.

# **PART C**

Problem Definition, Conceptual  
Framework and Hypotheses  
Development

## **PART C: PROBLEM DEFINITION, CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT**

### *OUTLINE OF PART C*

The process of conducting research entails crucial steps such as problem definition, conceptual framework and hypotheses development. This is especially the case for deductive research, where the focus is on developing and testing hypotheses. The problem definition and the conceptual framework development typically emerge from an in-depth review of the literature in the research domain of interest. Problem definition and conceptual framework, in turn, provide a foundation for the hypotheses development. At the conceptual framework development stage, the variables relevant to the phenomenon under investigation are identified and their relationships are described. At the hypotheses development stage, the rationale underlying the hypothesised relationships is elucidated. The above three steps are consistent with best practice guidelines in business research, as advocated by Sekaran and Bougie (2013) in their well-known research process framework.

Part C of this thesis encapsulates the above three steps of the research process. The outline of Part C is as follows:

- **Chapter C1** presents the research problem, as this emerges from the critical review of the literature (see Part B of this thesis).
- **Chapter C2** includes a discussion of the research objectives, how the objectives are addressed in this thesis and the proposed contributions to theory. Based on the research objectives, the conceptual framework of the thesis and the research hypotheses are developed.
- **Chapter C3** comprises a discussion of the conceptual framework and research hypotheses, as these develop from the research objectives. The conceptual framework emerges from the literature review and the identified research gaps (Part B of this thesis), and it aims to fulfil the research objectives in this thesis (see conceptual framework in Figure C3.6 on page 106). In Chapter C3, the theoretical underpinnings and the rationale for each testable hypothesis are presented.

## **CHAPTER C1: PROBLEM DEFINITION**

### **C1.1 INTRODUCTION**

The discussion in Part A of this thesis presents the broad research problem, which has been established based on information gathered from secondary sources, including academic literature and industry reports. In Part A of this thesis, the aim and objectives of the research conducted in this thesis have also been set. A critical review of the literature in three main streams of research has followed in Part B of this thesis. The critical review of the literature has informed the research problem definition. Chapter C1 includes a statement of the research problem, based on which the conceptual framework of the thesis and the research hypotheses are developed (see Chapters C2 and C3).

### **C1.2 DEFINITION OF THE RESEARCH PROBLEM**

Service research has long recognised that service recovery represents an important service management strategy (e.g., del Rio-Lanza *et al.*, 2009; van der Heijden *et al.*, 2013; Ro and Olson, 2014). Service recovery, which entails any efforts aimed at rectifying a service failure, is crucial for restoring customer satisfaction, confidence in the firm and for enhancing customer retention (e.g., Andreassen, 2001). Research in this domain emphasises the role played by employees in delivering service recovery. Accordingly, scholars have widely investigated customer perceptions of justice (or fairness) elicited by employee-initiated recovery efforts (e.g., Tax *et al.*, 1998; Smith *et al.*, 1999; Chebat and Slusarczyk, 2005; Schoefer and Diamantopoulos, 2008; Choi and Choi, 2014). This thesis acknowledges that employees play a crucial role in interacting with customers during service recovery, and in conveying empathy, politeness and concern – all fundamental tenets of interpersonal and informational justice (see discussion in Chapter B1 of this thesis). In this thesis, it is contended that employee efforts in delivering redress and in providing timely resolution of the failure are often constrained by organisational policies, such as service guarantees.

Firms often include guarantee policies as part of their service offering. The above practice spans across several service sectors, such as hospitality, banking and professional services. For instance, in the hospitality sector, Virgin Holidays provides a ‘worry free guarantee’ reassuring customers that they will be protected from losing the cost of their flight if the service fails (e.g., cancelled or delayed flight) (Virgin, 2014).

Similarly, Royal Mail offers a 'money back guarantee' by which customers are reassured that the delivery cost will be refunded in the event of service failure (Royal Mail, 2014). Additional companies who use service guarantee policies include Amazon and The Co-operative Bank. As evidenced by the above examples, service guarantees come into effect following service failures. When services fail, the policies are invoked and are employed as recovery strategies (Björlin Lidén and Skålén, 2003). Service guarantees typically set the compensation and the procedures to be followed in claiming the compensation (Jin and He, 2013). These policies can, therefore, influence customer perceptions and post-purchase behaviour (e.g., Parasuraman *et al.*, 1985; Bolton and Drew, 1995; Ostrom and Iacobucci, 1998; McCollough and Gremler, 2004).

In spite of the widespread usage of service guarantees in marketing practice and the recognition that these policies are invoked following service failures, there is paucity of empirical research that addresses how service guarantees are employed as recovery strategies and their influence on customer perceptions of justice. Research that examines the role of service guarantees in service recovery is important for conceptual developments in this research domain and for informing service management practice. The above viewpoint is echoed by a number of scholars arguing that service guarantees are indeed an important, yet underestimated recovery method (e.g., Björlin Lidén and Edvardsson, 2003; Björlin Lidén and Skålén, 2003; Berman and Mathur, 2014). Knowledge in this research domain can contribute to addressing a number of issues of theoretical relevance, as discussed below.

First, industry reports indicate that customers are often dissatisfied with organisational recovery efforts, and with business practices in the area of complaint handling (see discussion in Part A of this thesis). Similarly, evidence from academic research shows that unsuccessful service recovery leads to double deviation situations, whereby the initial service and recovery fail (e.g., Holloway and Beatty, 2003; Edvardsson, Tronvoll and Höykinpuro, 2011; Joireman *et al.*, 2013). The delivery of unsatisfactory recovery may be mistakenly attributed to the efforts undertaken by employees. However, in practice, employee recovery efforts are often constrained by the terms set in guarantee policies. Hence, not only employee efforts, but also the way service guarantees are designed may explain why service recovery is unsuccessful.

Second, factors external to service failure and recovery encounters, such as firm reputation, can contribute to explaining customer responses to service recovery. Marketing research employing the precepts of Signaling Theory shows that service



guarantees function as signals of quality, and these policies are often used by firms along with reputation (e.g., Ostrom and Iacobucci, 1998; Wirtz *et al.*, 2000; Wu *et al.*, 2012). Importantly, customer perceptions of service guarantees are influenced by information about the reputation of the firm. In a similar way, service guarantees employed as recovery strategies can be evaluated in the light of information about the reputation of the firm. Another factor relates to customer inferences of motive. Evidence from price fairness research shows that customer inferences about the firm's motives for offering price guarantees influence perceptions of price fairness (e.g., Kukar-Kinney *et al.*, 2007). In a similar way, inferences about the firm's motives for offering the guarantee policy may explain customer responses to service recovery implemented through service guarantees. Research that addresses the role of firm reputation and inferences of motives in service recovery could advance insights on the reason why seemingly successful recovery efforts are inefficacious.

Third, service failures create customer uncertainty related to the decision to revisit the firm or to defect (Rotte *et al.*, 2006). In conditions of high uncertainty, trust is important (Hansen, 2012). Customers' lack of trust in the firm may explain why service recovery reveals unsuccessful at fostering customer retention. Despite the importance to further understanding on customer trust following service failure and recovery, extant research directs much attention towards customer post-recovery satisfaction (e.g., Smith *et al.*, 1999; McCollough *et al.*, 2000; del Río-Lanza *et al.*, 2009). Advancing knowledge on customer trust and other relational constructs, such as commitment and loyalty, as outcomes of recovery encounters can broaden understanding of the process by which fair recovery leads to customer decision to maintain (or exit) the relationship with the firm.

Based on the above discussion, it can reasonably be concluded that customer perceptions in service recovery encounters merit further research. This thesis extends current knowledge on, (1) how service guarantees operate in service recovery encounters, and the interplay of these policies with employee behaviour in shaping perceptions of justice; (2) how service recovery implemented through service guarantee and employee behaviour shapes customer trust, and in turn, commitment and loyalty; (3) how customer responses to service recovery are contingent upon firm reputation and inferences of motive. The discussion above indicates, broadly, the theoretical issues under investigation in this thesis. A discussion of the research objectives addressed in this thesis and concurring theoretical contributions follows in Chapter C2.

## **CHAPTER C2: RESEARCH OBJECTIVES AND PROPOSED THEORETICAL CONTRIBUTIONS**

### **C2.1 INTRODUCTION**

In Chapter C2, the research objectives set out in Part A of this thesis are recapitulated, along with the proposed contributions to theory. Based on the research objectives, the variables relevant in answering the research problem are identified and the conceptual framework of the thesis is developed (see Chapter C3).

### **C2.2 RESEARCH OBJECTIVES AND PROPOSED THEORETICAL CONTRIBUTIONS**

Below, the research objectives presented in Part A of this thesis are expanded. In particular, the discussion in this section focuses on illustrating how this thesis addresses each research objective and the proposed contributions to theory.

#### **RESEARCH OBJECTIVE AND PROPOSED CONTRIBUTION 1: Perceived Justice elicited by Guarantee Terms and Employee Behaviour in Service Recovery**

As discussed in Chapter B4 of this thesis, much of the extant service recovery research emphasises the crucial role played by employees in delivering fair recovery (e.g., Tax *et al.*, 1998; Smith *et al.*, 1999; Chebat and Slusarczyk, 2005; van der Heijden *et al.*, 2013; Ro and Olson, 2014). By contrast, little empirical research has examined how organisational policies, such as service guarantees, are employed as recovery strategies and influence customer perceptions of fairness (e.g., McQuilken *et al.*, 2013; Van Vaerenberg *et al.*, 2014). Studies suggest that service guarantees best work in combination with employee behaviour (e.g., Parasuraman *et al.*, 1985; Björlin Lidén and Skålén, 2003). Indeed, employee behaviour is fundamental to shaping customer perceptions of fairness regarding interpersonal treatment. Issues related to how service recovery is best implemented through service guarantees, and how these policies, along with employee behaviour, elicit fairness perceptions are relevant for advancing academic research and for informing service management practice. Therefore, a first research objective in this thesis is to investigate how a service guarantee can be employed as a recovery strategy along with employee behaviour, and how the guarantee policy and employee behaviour elicit customer perceptions of recovery fairness.

In order to address the above research objective, this thesis investigates two widely used terms of service guarantee, (1) payout, namely the compensation guaranteed to the customer in the event of service failures, and (2) ease of invocation, namely the process of invoking the guarantee (e.g., Hart, 1988; Hart *et al.*, 1992; McDougall *et al.*, 1998; Berman and Mathur, 2014). For instance, in Royal Mail's money back guarantee, it is stated that the customer will receive a full refund of the delivery cost in the event the service fails (i.e. payout), with no questions asked (i.e. ease of invocation). The above two terms are relevant at the recovery stage when customers seek compensation for the service failure, and go through the process of claiming such compensation. The above guarantee terms are examined along with two main types of employee behaviour at the recovery stage - concern and communication. Drawing on the Justice Theory framework (Homans, 1961; Adams, 1965; Thibaut and Walker, 1975; Bies and Moag, 1986), the guarantee terms and the types of employee behaviour are expected to elicit perceptions of recovery fairness. A discussion of the theoretical rationale for the hypothesised effects follows in Chapter C3 of this thesis.

The findings in this thesis are expected to offer important contributions to theory. The thesis answers calls for empirical research that addresses the issue of how service recovery is implemented through guarantees (e.g., Björclin Lidén and Skålén, 2003; McQuilken *et al.*, 2013; Berman and Mathur, 2014). The thesis is distinctive in its focus on perceived justice elicited not only by employee behaviour, as it has been studied previously, but also by guarantee terms. Given its focus, this thesis will, first, ascertain the relevance of the Justice Theory framework in explaining customer perceptions of service guarantees employed as recovery strategies, and second, expand knowledge in service recovery research by establishing how service guarantee terms elicit perceptions of justice.

## **RESEARCH OBJECTIVE AND PROPOSED CONTRIBUTION 2: The Signaling Function of Service Guarantee and Employee Behaviour in Service Recovery**

As discussed in Chapter B1 of this thesis, service recovery research has extensively studied the impact of perceived justice elicited by employee-initiated recovery efforts on customer post-recovery satisfaction (e.g., Smith *et al.*, 1999; McCollough *et al.*, 2000). A handful of studies have examined the impact of perceived justice on relational outcomes such as trust and commitment (e.g., Tax *et al.*, 1998; Kau and Loh, 2006; DeWitt *et al.*, 2008; Kim *et al.*, 2009). However, so far the impact of

perceived justice on customer trust when service recovery is implemented through service guarantees is unknown. Customer trust, however, plays an important role in service failure and recovery encounters. Service failures exemplify situations that create uncertainty. In a study of the trust-loyalty link, Rotte *et al.* (2006) show that service failures and unsatisfactory recovery efforts increase customer uncertainty, including uncertainty related to trust judgments. Individuals' need for trust is exceptionally high in the context of uncertain situations. In this respect, Rempel *et al.* (1985) state that '*an interpersonal environment possessing the potential for risk and uncertainty is necessary for the expression of the type of responsive behaviour that fosters trust*' (p. 97). Considering that service failures raise uncertainty, trust is relevant when these events occur. Given the above, the second research objective in this thesis is to examine how perceived justice elicited by service guarantee and employee behaviour influences customer trust at the recovery stage.

In order to address the above research objective, this thesis investigates how fair service guarantee and fair employee behaviour signal firm and employee trustworthiness at the recovery stage, and their consequent impact on customer post-recovery trust. Drawing on the Signaling Theory (Spence, 1974), this thesis hypothesises that, at the recovery stage, fair guarantee terms and fair employee behaviour *signal* the trustworthiness of the firm and of employees, thereby enhancing customer post-recovery trust. Marketing research building on the precepts of Signaling Theory explains the role of trust as an outcome of signaling and as a mechanism for lowering customer uncertainty related to purchase decisions (e.g., San Martín and Camarero, 2005). Research in this domain identifies service guarantees as signals of quality (e.g., Kirmani and Rao, 2000; Wirtz *et al.*, 2000; Wirtz and Kum, 2001). In their role of quality signals, guarantee policies are shown to influence customer purchase decisions (e.g., Ostrom and Iacobucci, 1998; Wu *et al.*, 2012). In a recovery context, service guarantees, along with employee behaviour, are expected to function as signals of trustworthiness and as such, to lower customer uncertainty related to repurchase decisions. As a result of the signaling function of service guarantee and employee behaviour, customers are expected to show trust, and in turn, commitment and loyalty towards the relationship with the firm (see rationale in Chapter C3).

Findings from this thesis will advance research on signaling by establishing that fair (or just) service guarantee and employee behaviour employed as recovery strategies can function as marketing signals. In particular, this thesis will add to prior knowledge

in signaling research by demonstrating that service guarantees signal information other than quality, and specifically, information about the firm's trustworthiness.

### **RESEARCH OBJECTIVE AND PROPOSED CONTRIBUTION 3: The Duality of Trust Referents**

As discussed in Chapter B3 of this thesis, trust is a multifaceted construct. The literature refers to four facets of trust - cognitive, affective, behavioural and overall trust. Further, prior research distinguishes between referents of trust. For instance, organisational research distinguishes between leaders and co-workers, as two distinct trust referents (Colquitt *et al.*, 2007). In business-to-business literature, studies distinguish between trust in the buying organisation (i.e. seller) and trust in the individual representing the organisation (i.e. salesperson) (e.g., Doney and Cannon, 1997; Ganesan and Hess, 1997). Prior service recovery research has thus far overlooked the multifaceted nature of trust, and the distinction between trust referents. In this domain, trust is commonly conceptualised as an overall attitude of customers towards the firm (e.g., DeWitt *et al.*, 2008; Kim *et al.*, 2009). Further, research in this domain has thus far overlooked the relative impact of four different types of justice on customer trust following service recovery. Research in the field of organisational justice suggests that perceptions of procedural and interactional justice generalise to different referents. Whilst procedural justice tends to generalise to the whole organisation, interactional justice tends to generalise to the single decision-maker (Bies and Moag, 1986). In turn, procedural and interactional justice may generalise to trust in the firm and in the employee. In recognition of the multifaceted nature of the trust construct and of the importance to distinguish between trust referents, the third research objective in this thesis is to understand how customers differentiate between firm and employee referents when forming trust at the recovery stage.

This thesis addresses the above research objective, (1) by conceptualising trust as a higher order construct that embraces both cognitive and affective components, and (2) by treating trust in the firm and trust in the employee as distinct and separate constructs. The above conceptualisation of trust draws upon prior service research showing that service exchanges involve both cognitive and affective components (Johnson and Grayson, 2005). Although cognitive and affective components are part of a higher order construct of trust, their relative importance is established in this thesis. The distinction between firm and employee as trust referents draws upon prior

marketing research distinguishing between trust in the firm and its management, and trust in employees (e.g., Sirdeshmukh *et al.*, 2002). The selected trust referents are relevant to the context of the research, given the antecedents of trust – service guarantee and employee behaviour. Service guarantees are organisation-wide policies and are likely to influence customer trust in the organisation as a whole. On the other hand, employee behaviour entails the actions undertaken by a single individual (i.e. the employee). Employee behaviour is likely to influence trust in the employee, with whom the customer interacts at the recovery stage.

The findings in this thesis will have notable implications for theory. The thesis aims to contribute to service recovery research by firstly, advancing knowledge on customer trust as an outcome of perceived recovery fairness elicited by service guarantee and employee behaviour. Furthermore, the thesis is the first study in service recovery research to consider both cognitive and affective components of trust, and the duality of trust referents. The thesis aims at providing evidence on whether a conceptualisation of trust that embraces cognitive and affective components, and the duality of trust referents are meaningful in service recovery research. Further, the thesis will offer insights on the differential effects of trust in the firm and trust in the employee on customer commitment and loyalty.

#### **RESEARCH OBJECTIVE AND PROPOSED CONTRIBUTION 4: The Moderating Effects of Firm Reputation for Fairness and Inferred Motive**

Service recovery research suggests that a number of factors external to the recovery encounter can either hinder or enhance service recovery success. Amongst other factors, firm reputation and inferences of motive are highly relevant to service recovery encounters, whereby guarantees are employed as recovery strategies.

Prior research identifies firm reputation as a marketing signal (e.g., Kirmani and Rao, 2000). Reputation signal is often used concurrently with service guarantee policies, and it influences customer perceptions of service guarantees (e.g., Wirtz *et al.*, 2000; Wu *et al.*, 2012; Jha *et al.*, 2013). Extant research examines service guarantees and firm reputation as signals of quality, and the impact of the above two signals on customer purchase decisions. However, research overlooks situations where service guarantees are employed as recovery strategies, along with employee behaviour and firm reputation. Further, extant research on service guarantees indicates that customer inferences about the firm's motives influence perceptions of fairness towards the

guarantee terms (e.g., Kukar-Kinney *et al.*, 2007). There is, however, paucity in empirical research that shows how customer inferences of the firm's motives shape perceptions of fairness towards service guarantee and employee behaviour employed as recovery strategies. Research that examines the role of firm reputation and inferred motive in shaping customer responses to service recovery is crucial for advancing knowledge on how factors external to the recovery encounter hinder or enhance service recovery success. Therefore, the fourth research objective of this thesis is to investigate how customer perceptions of service recovery implemented through guarantee policies and employee behaviour are contingent upon two factors external to the recovery encounter, namely firm reputation for fairness and inferred motive.

In order to address the above research objective, this thesis examines the role of firm reputation for fairness and inferred motive as moderators of the relationships between, (1) perceived justice elicited by service guarantee and post-recovery trust in the firm, and (2) perceived justice elicited by employee behaviour and post-recovery trust in the employee. Drawing on the Signaling Theory (Spence, 1974), this thesis posits that the diagnosticity of employee behaviour and service guarantee signals is contingent upon the signal of firm reputation for fairness. Drawing on the Attribution Theory (Heider, 1958), this thesis further posits that the impact of employee behaviour and service guarantee on post-recovery trust is contingent upon customer inferences about the motives underlying both the firm's decision to offer the service guarantee and the employees' behaviour at the recovery stage.

Findings regarding the moderating effect of firm reputation for fairness will contribute to signaling research arguing that the same firm often, and perhaps inadvertently, uses multiple signals concurrently and the interaction of signals influences customer perceptions. This thesis will provide evidence on how the interaction between three signals – service guarantee, employee behaviour and firm reputation for fairness – influences customer responses to service recovery. Findings regarding the moderating effect of inferred motive will extend research employing Attribution Theory by establishing that customers not only make attributions related to service failures, but also attributions related to service recovery. The finding will contribute to knowledge in service recovery research by establishing the merit of inferred motive towards explaining customer responses to service recovery, which is a novel application in service recovery research. Chapter 3 provides a discussion of the conceptual framework of the research and of the research hypotheses.

## **CHAPTER C3: CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT**

### **C3.1 INTRODUCTION**

The development of the conceptual framework for the research represents a milestone in the process of conducting deductive research. The critical review of the literature provides the foundation for developing the conceptual framework, which essentially depicts the complex network of relationships among variables deemed relevant to answer the research problem. Based on theory, the complex network of relationships illustrated in the framework is explained and research hypotheses are developed.

Consistent with the above process, this thesis builds upon the critical review of the literature, the in-depth discussion of the research objectives and the theoretical contributions (see Chapter B2 of this thesis) in order to develop the conceptual framework for the research and related research hypotheses. The conceptual framework in this thesis, therefore, emerges from the literature review and research gaps, and it aims to address the research objectives.

The conceptual framework of this thesis and related research hypotheses are presented in Chapter C3. At the core of Chapter C3 is a discussion of the theoretical underpinnings and of the rationale for each testable hypothesis in the framework. As part of the discussion, the main and moderating effects depicted in the conceptual framework are presented and graphically illustrated in sequence. The conceptual framework including the main effects can be found on page 106 (see Figure C3.6) and the framework including the moderating effects is presented on page 115 (see Figure C3.9).



## **C3.2 CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT**

Below, the theoretical underpinnings and the rationale for each testable hypothesis are discussed.

### **C3.2.1 The Impact of Service Guarantee and Employee Behaviour on Customer Post-Recovery Trust in the Firm (H1-H4)**

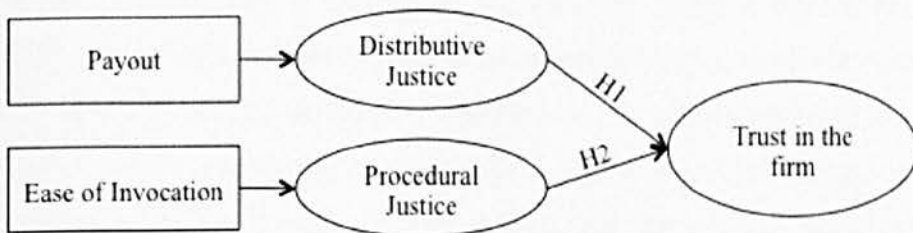
This thesis proposes that perceptions of justice conveyed by service guarantee and employee behaviour at the recovery stage will positively impact customer post-recovery trust in the firm and in the employee, respectively. Signaling Theory (Spence, 1973, 1974) provides a theoretical explanation for the above-hypothesised effects. This thesis argues that service guarantee and employee behaviour function as signals of the firm's and employees' attributes. Service guarantee and employee behaviour represent two distinct signals. Prior marketing research shows that service guarantees are strategies used by organisations in an effort to convey quality (e.g., Wirtz *et al.*, 2000; Chen *et al.*, 2009; Wu *et al.*, 2012). Service guarantees are relevant in service failure and recovery encounters given that these policies function as recovery strategies (e.g., Björclin-Lidén and Skålén, 2003). Employees represent a primary source of contact for customers through whom information is shared (Doney and Cannon, 1997). In a service failure and recovery encounter, the way employees interact with customers conveys care and concern (e.g., Smith *et al.*, 1999; Mattila, 2006; Roschk and Kaiser, 2013). Therefore, the signaling role of employee behaviour is relevant at the recovery stage. A discussion of the theoretical rationale for the hypothesised effects of service guarantee and employee behaviour follows in the sections below.

### **C3.2.2 The Impact of Service Guarantee on Post-Recovery Trust in the Firm (H1-H2)**

As discussed in Chapter B2, the signaling literature refers to service guarantee policies as default-contingent signals of quality. As such, these policies entail an obligatory promise of the firm to incur a monetary loss in the event that the signal defaults on its claim (Kirmani and Rao, 2000). For instance, the firm incurs compensation costs when the guarantee is breached and a service failure occurs. Service guarantee policies typically entail two terms, namely guarantee payout and ease of invocation (Hart, 1988; Hart *et al.* 1992; McDougall *et al.*, 1998). In a service recovery

context, payout and ease of invocation (EoI) reflect the level of distributive and procedural justice being meted out by the firm whilst handling customer complaints. Perceptions of distributive and procedural justice are hypothesised to impact customer post-recovery trust in the firm, as illustrated in Figure C3.1. A discussion of the theoretical rationale for the above-hypothesised effects follows in the sections below.

**Figure C3.1:** Hypothesised effect of service guarantee on post-recovery trust in the firm



*The impact of distributive justice elicited by guarantee payout on customer post-recovery trust in the firm (H1)*

There are reasons to believe that guarantee payout elicits perceptions of distributive justice, and in turn, influences customer post-recovery trust in the firm. Distributive justice entails perceptions that the outcomes of a social exchange are equitable, thus the benefits derived from the social exchange are proportional to or greater than the incurred sacrifices (Adams, 1965). In a recovery context, distributive justice is created when equitable compensation for the service failure is provided, thus the benefits for the customer are greater than the sacrifices incurred because of the service failure and of lodging a complaint.

Extant research has investigated distributive justice perceptions elicited by employee-initiated recovery compensation, using direct measures of distributive justice to gauge perceived equity of recovery compensation (e.g., Maxham and Netemeyer, 2002, 2003; Homburg and Fürst, 2005; Choi and Choi, 2014). Notwithstanding, as discussed in Part A of this thesis, employee efforts related to recovery compensation are often constrained by guarantee policies. In such instances, the payout set in the service guarantee is rendered to the customer as compensation. This thesis extends prior research by examining distributive justice perceptions associated with guarantee payout.

Guarantee payout denotes the monetary cost that the firm incurs if it fails to deliver up to the guaranteed standards of service (McDougall *et al.*, 1998). In the context of low price guarantees, the size of payout is found to enhance perceptions of

fairness (Kukar-Kinney *et al.*, 2007). In a similar way, the size of guarantee payout is expected to enhance customer perceptions of fairness when service recovery is implemented through the guarantee. Guarantee payout denotes the costs the firm incurs in order to compensate the customer for the inconvenience caused. Similar to employee-initiated recovery compensation, guarantee payout is expected to elicit perceptions of distributive justice. Consistent with equity theory (Adams, 1965), distributive justice is created when the benefits from the social exchange are greater than the sacrifices made. When the service guarantee is invoked at the recovery stage, a payout that does not cover for the costs of the service and the inconvenience caused by the service failure is likely to lead customers to perceive a double loss. In such instances, the sacrifices incurred because of experiencing an unsatisfactory service and spending extra effort to lodge a complaint might be perceived as higher than the benefits obtained from the service encounter. By contrast, a guarantee payout that covers for the costs of the service and for the inconvenience caused by the service failure might be perceived to deliver high benefits and to restore the relationship with the firm at equitable levels. Such guarantee payout is, therefore, likely to elicit perceptions of distributive justice.

Distributive justice elicited by high guarantee payout is posited to influence customer post-recovery trust in the firm. The hypothesised impact of distributive justice perceptions elicited by high guarantee payout on customer post-recovery trust in the firm finds theoretical explanation in prior signaling research. Signaling research contends that service guarantees are meaningful when including high payout (Hart, 1988). As explained by Connelly *et al.* (2011), signals are evaluated on the basis of the costs the signaler (i.e. the firm) incurs in using false signaling. Signals are perceived to be credible when the costs of using false signaling are perceived to be high. To illustrate the point, Connelly *et al.* (2011) bring the example of ISO9000 certification as a signal of quality. The authors explain that ISO9000 certification is a credible signal of quality on the basis that the costs associated with obtaining this certification are high enough to prevent the firm from engaging in false signaling. In the context of service guarantee signals, high guarantee payout indicates that the firm incurs a high cost of compensating the customer if the service fails. Due to the large costs involved in compensating the customer, the firm is seen as unwilling to engage in false signaling. As a result, the service guarantee is perceived to be a credible signal that the firm can be trusted (Kirmani and Rao, 2000).

Consistent with the above reasoning, this thesis posits that customers will report perceptions of distributive justice when the service guarantee employed as recovery strategy includes high payout. High guarantee payout indicates that the costs of this signal are high enough to prevent the firm from behaving in an untrustworthy manner. Service guarantees including high payout are, therefore, perceived as credible signals that the firm can be trusted. Consequently, customers are likely to show trust in the firm. Conversely, distributive injustice elicited by low guarantee payout is expected to signal untrustworthy behaviour of the firm. This is consistent with Grégoire, Laufer and Tripp (2010) who contend that unfair service recovery is often attributed to the incompetence of the firm. Formally, it is hypothesised that:

**H1: Distributive justice elicited by high guarantee payout at the recovery stage will have a positive and significant impact on customer post-recovery trust in the firm.**

*The impact of procedural justice elicited by the ease of invoking the guarantee on customer post-recovery trust in the firm (H2)*

As discussed in Chapter B1, timeliness of recovery processes represents a key principle of procedural justice. Extant service recovery research shows that timely recovery processes create procedural justice, namely perceptions that the procedures followed by the firm in handling customer complaints are fair (e.g., Blodgett *et al.*, 1997; Tax *et al.*, 1998; Smith *et al.*, 1999; Chebat and Slusarczyk, 2005). The above studies examine the timeliness shown by employees during service recovery encounters. However, as discussed in Part A of this thesis, there are situations where service recovery is implemented through service guarantee policies. In such instances, perceived timeliness of service recovery depends on the terms set in the guarantee. Service guarantee policies typically entail a number of terms and conditions related to the process of invoking the policy. For instance, the terms set in Atlantic's customer service guarantee establish that claims of the guarantee need to detail the problem experienced, need to be submitted within 10 working days of the alleged failure to the Customer Services department for a validity check (Atlantic website, 2015). Similar conditions contribute to increasing the complexity of the guarantee invocation process, also referred to as 'ease of invocation' (Hart, 1988).

The amount of effort required on the part of the customer in order to invoke the guarantee increases as the invocation process becomes complex (Wirtz and Kum, 2004).

Past signaling research defines the invocation process as either; (i) 'easy', when the policy is claimed with no questions asked, or (ii) 'difficult', when the customer is required to provide an explanation for dissatisfaction, a proof of purchase, and wait until notified to receive the compensation (e.g., Wirtz and Kum, 2004; Jin and He, 2013). As recently pointed out by Meyer *et al.* (2014), ease of invocation (EoI) is a necessary, yet surprisingly overlooked design element of service guarantees. This design element is particularly important in service failure and recovery encounters, when customers invoke the guarantee. This thesis adds to existing knowledge by examining procedural justice perceptions resulting from EoI.

When service failures occur and service recovery is implemented through the guarantee, EoI denotes the timeliness of handling the customer complaint. Similar to timeliness of employee recovery efforts, EoI is expected to elicit perceptions of procedural justice. Consistent with the theory of procedural justice (Thibaut and Walker, 1978), procedural justice perceptions are formed based on the timeliness and customer perceived control over processes. At the time of invoking the guarantee, customers are likely to perceive to have little control over the recovery process and find the recovery lengthy and time consuming if the guarantee includes complex invocation processes. By contrast, customers are likely to perceive the recovery process as efficient when the service guarantee includes less complex invocation processes. Less complex invocation processes are, therefore, expected to elicit perceptions of procedural justice.

Procedural justice elicited by the ease of invoking the guarantee is posited to positively impact customer post-recovery trust in the firm. The above-hypothesised impact finds theoretical rationale in signaling research. According to signaling research, service guarantees are meaningful and effective when easy-to-invoke, rather than difficult-to-invoke (e.g., Hart, 1988; McCollough and Gremler, 2004). The ease of invoking the guarantee, such as not having to provide a detailed explanation for invoking the policy and not having to wait for validity checks of the claim, is likened to an opportunity to convey the firm's competence and commitment towards handling service failures. In this respect, Wirtz and Kum (2004) state that easy-to-invoke guarantees signify that the firm welcomes customer complaints and trusts the customer will not engage in opportunistic claiming. As reciprocation, customers are likely to show trust in the firm.

Consistent with the above reasoning, this thesis posits that easy-to-invoke guarantees signal the firm's ability to deal with service failures efficiently, the firm's

intentions to resolve the problem quickly, thus restoring fairness to the relationship. Difficult-to-invoke guarantees, on the other hand, signal the firm's willingness to discourage customers from claiming the policy and guarantee payout (Wirtz and Kum, 2004). In this sense, difficult-to-invoke guarantees signal the firm's opportunistic intentions, which in turn would deter customers from showing trust in the firm. Hence, it is hypothesised that:

**H2: Procedural justice elicited by the ease of invoking the guarantee at the recovery stage will have a positive and significant impact on customer post-recovery trust in the firm.**

### C3.2.3 The Impact of Employee Behaviour on Post-Recovery Trust in the Employee (H3-H4)

As discussed in Part B of this thesis, extant service recovery research suggests that service employees play a crucial role in delivering fair service recovery. In particular, the sensitivity displayed by employees and the adequacy of explanations about the service failure influence customer perceptions of interpersonal and informational justice, respectively (Colquitt, 2001; Liao, 2007). This thesis hypothesises that perceptions of justice elicited by employee behaviour at the recovery stage positively influence customer post-recovery trust in the employee, by means of signaling employee trustworthiness. The hypothesised effects are illustrated in Figure C3.2. A discussion of the theoretical rationale for the hypothesised effects follows in the sections below.

**Figure C3.2:** Hypothesised effect of employee behaviour on post-recovery trust in the employee



*The impact of interpersonal justice elicited by the sensitivity displayed by employees at the recovery stage on customer post-recovery trust in the employee (H3)*

Extant service recovery research suggests that employee politeness and empathy during service recovery encounters are precursors of interactional justice, namely perceptions of the justice rendered by employees when interacting with the customer (e.g., Smith *et al.*, 1999; Chebat and Slusarczyk, 2005; Roschk and Kaiser, 2013). Whilst service recovery research has widely embraced the dimension of interactional justice, organisational justice research proposes a distinction between two components of interactional justice – interpersonal treatment and information exchanged (see also the discussion in Chapter B1). The above two components correspond to separate dimensions of justice - interpersonal and informational justice (Colquitt *et al.*, 2001). In a service recovery encounter, interpersonal justice concerns the sensitivity displayed by employees towards customers, whereas informational justice entails the adequacy of

information about the service failure (Liao, 2007). Drawing upon organisational justice literature and adding to knowledge in service recovery research, this thesis examines the relative effect of interpersonal and informational justice on customer post-recovery trust. The hypothesised effects of interpersonal and information justice on customer post-recovery trust in the employee are discussed below.

With regards to interpersonal justice, this thesis posits that high employee concern, empathy and effort in resolving the failure elicit perceptions of interpersonal justice. Consistent with the theory of interactional fairness (Bies and Moag, 1986), interpersonal treatment is perceived to be fair when meeting individuals' needs for self-esteem. In a service recovery encounter, employees who show lack of effort and concern about resolving the service failure may pose a threat to customer self-esteem. As a result, customers are unlikely to report interpersonal justice. Conversely, customers are expected to show interpersonal justice when employees make an effort to resolve the failure, show empathy and concern about the problem. Prior studies often use a direct measure of interpersonal justice in order to gauge the fairness being meted out by employee behaviour (e.g., Sparks and McColl-Kennedy, 2001; Schoefer and Ennew, 2005; Wirtz and McColl-Kennedy, 2010). Consistent with prior research, this thesis uses a direct measure of interpersonal justice to gauge employee concern during service recovery encounters.

Interpersonal justice elicited by employee concern during the service recovery encounter is posited to influence customer post-recovery trust in the employee. This effect finds theoretical explanation in research on signaling and industrial marketing. In signaling research, San Martín and Camarero (2005) show that firms' investments in assets convey underlying good intentions and act as signals of quality. The authors explain that investments in assets are credible signals of quality on the basis that the firm would incur a loss in the event of relationship dissolution. Similar to investments in assets, employee concern about the service failure signals that the firm invests resources in training employees and in complaint handling, and that employees are competent and committed to maintain the relationship with the customer. Consistent with the logic from signaling research that signals are evaluated on the basis of the costs and benefits the signaler (i.e. the firm) would incur in using false signaling (Connelly *et al.*, 2011), the costs service employees would incur by using false signaling are perceived to be high (i.e. lose their job). Further, customers may notice if employees engage in false signaling, and decide to switch service provider, thus causing financial



loss to the firm. The costs of engaging in false signaling during service recovery encounters are, therefore, high for employees. It follows that customers are likely to perceive high employee concern as a credible signal that employees can be trusted, and accordingly, they show trust in the employee.

Consistent with the above reasoning, industrial marketing research shows that the vendor's investments in the relationship provide evidence that the vendor's organisation is credible and cares about the relationship with the buyer, and can therefore be trusted (Doney and Cannon, 1997). Similarly, social psychology research suggests that interpersonal justice leads to positive perceptions about the person delivering fairness. In a university setting, Colquitt (2001) finds that interpersonal justice perceptions create positive perceptions about the leader. In a similar way, customers are expected to show trust in the employees, when interpersonal justice is rendered at the recovery stage. This thesis, therefore, postulates that employee concern, empathy and effort at the recovery stage signal employees' trustworthiness and reassure customers that employees are concerned about their loss. In response, customers are expected to show trust in the employee. Formally, it is hypothesised that:

**H3: Interpersonal justice elicited by the interpersonal treatment shown by employees at the recovery stage will have a positive and significant impact on customer post-recovery trust in the employee.**

*The effect of informational justice elicited by adequate employee communication at the recovery stage on customer post-recovery trust in the employee (H4)*

Extant service recovery research suggests that employees are the main actors in communicating the reason why the service failed (e.g., Colquitt, 2001; Mattila, 2006; Liao, 2007). Employee communication entails, for instance, providing an explanation for the service failure. The literature in management identifies different types of explanations depending on the extent to which the firm accepts responsibility for conflict situations. In this respect, Conlon and Murray (1996) distinguish between excuses, apologies and justifications. Apologies indicate acceptance of blame and include expressions of regret. Justifications also indicate acceptance of blame, but denote an attempt to mitigate negative impressions. Conversely, excuses imply that the firm denies responsibility for the service failure. Excuses are inevitably connoted as negative, whereas explanations and apologies are either neutral or positive.

As pointed out by Greenberg (1996), explanations are often provided in order to gain a favourable impression in the mind of the other party in the social exchange. The same author shows that, in organisational settings, employees convey positive impressions to their peers and/or supervisors when they excuse themselves for poor performance. In a similar way, at the recovery stage, explanations denote the firm's attempt to recuperate a positive impression in customers' mind. In such encounters, customers are satisfied when offered a justification or an apology for the service failure (Conlon and Murray, 1996; Boshoff and Leong, 1998). Justifications and/or apologies imply that the firm takes responsibility for the service failure. As a result, customer need to assign blame is fulfilled. Adding to the above evidence, Mattila (2006) shows that providing an explanation for the service failure creates informational justice, namely perceptions that communication at the recovery stage is adequate.

Despite providing some advances on the effect of employee explanations on consumers, Conlon and Murray (1996) and Boshoff and Leong (1998) do not measure perceptions of informational justice. Informational and distributive justice are measured by Mattila (2006). The above study, however, does not consider procedural and interpersonal justice. Moreover, the above studies examine customer satisfaction with recovery. The effect of explanations on relational outcomes such as trust has so far been overlooked. Adding knowledge to service recovery research, this thesis investigates informational justice elicited by employee explanations at the recovery stage. Consistent with the theory of interactional fairness (Bies and Moag, 1986) and Attribution Theory (Heider, 1958), employee communication is perceived to be fair when meeting individuals' needs to assign blame for negative events. In a service recovery encounter, customer need to assign blame remains unfulfilled when employees do not provide an explanation for the service failure. As a result, customers are unlikely to show informational justice. By contrast, customer need to assign blame is fulfilled when employees provide a genuine explanation for the service failure. Employee explanation is, therefore, likely to create informational justice.

Informational justice elicited by employee communication at the recovery stage is posited to have a positive impact customer post-recovery trust in the employee, by means of signaling employee trustworthiness. The above-hypothesised effect finds theoretical explanation in industrial marketing and signaling research. Industrial marketing research shows that communication between buyers and sellers is a precursor of trust in the ability of the two parties to resolve conflict (Morgan and Hunt, 1994).

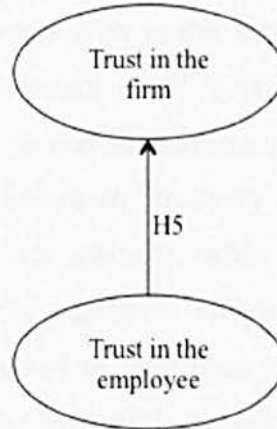
From the perspective of Signaling Theory, signals are evaluated on the basis of the costs and benefits the signaler (i.e. the employee) would incur by engaging in false signaling (Connelly *et al.*, 2011). The costs employees would incur by using explanations as a false signal are high (i.e. lose their job). Employee communication at the recovery stage, whereby the employee provides an explanation for the service failure, is therefore posited to represent a credible signal that employees are honest, care about the customer and are competent in handling service failures. Informational justice elicited by employee communication at the recovery stage is, therefore, expected to enhance customer trust in the employee. Accordingly, it is hypothesised that:

**H4: Informational justice elicited by adequate employee communication at the recovery stage will have a positive and significant impact on customer post-recovery trust in the employee.**

### C3.2.4 The Link between Trust in the Firm and Trust in the Employee following Service Recovery (H5)

A unidirectional relationship between post-recovery trust in the firm and post-recovery trust in the employee is hypothesised, as illustrated in Figure C3.3. A theoretical explanation for the hypothesised relationship is provided below.

**Figure C3.3:** Hypothesised link between post-recovery trust in the firm and post-recovery trust in the employee



Industrial marketing and service research describe the causal relationship between trust in the firm and trust in the salesperson/employee as reciprocal (e.g., Doney and Cannon, 1997; Sirdeshmukh *et al.*, 2002). Industrial marketing research refers to a bidirectional ‘transference process’ between trust in the salesperson/employee and trust in the firm, whereby customer trust in the salesperson transfers to trust in the firm, or a reversed causation applies (Doney and Cannon, 1997, p. 41). Scholars explain that trust in the employee transfers to trust in the firm when employees are the primary source of customer evaluations. In such instances, trust in employee generalises to trust in the firm as a whole. Conversely, trust in the firm transfers to trust in the employee when customers are highly familiar with the firm. In such instances, customers make inferences about employee trustworthiness on the basis of their trust in the firm.

Based on the above discussion, causality between trust in the firm and trust in the employee flows in two directions. However, a closer inspection of research findings reveals that the transference process from trust in the employee to trust in the firm has received extensive empirical support. In business-to-business relationships, Doney and Cannon (1997) note that trust in the salesperson most frequently transfers to trust in the

vendor's firm. Similarly, in customer-firm relationships, Sirdeshmukh *et al.* (2002) find that customer trust in service employees transfers to trust in the firm and management policies. The authors attribute the above finding to the frequency of interactions between customers and employees. Given that customers often interact with salespersons/employees, employee behaviour often provides the basis for inferring trust in the firm.

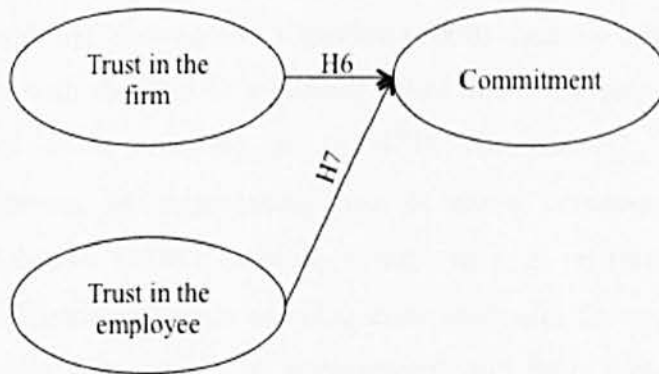
Consistent with the above evidence and given the context under investigation (i.e. service failure and recovery encounters), this thesis postulates a unidirectional transference process from post-recovery trust in the firm to post-recovery trust in the employee. As suggested by Sirdeshmukh *et al.* (2002), customer trust in service employees transfers to trust in the firm and its management when customers frequently interact with employees. In service failure and recovery encounters, customers interact with employees at multiple stages, for instance, when reporting the service failure, lodging a complaint and claiming the guarantee. Given the frequency of interactions with employees, customers are expected to infer trust in the firm on the basis of the firm's actions and policies, and on the basis of their trust in the employee. In this sense, post-recovery trust in employees transfers to post-recovery trust in the firm. In the above-described transference process, customers attribute employee behaviour to the attributes of employees, as well as to the culture and value system of the firm. Formally, it is hypothesised that:

**H5: Customer post-recovery trust in the employee will have a positive and significant impact on customer post-recovery trust in the firm.**

### C3.2.5 The Link between Trust and Commitment following Service Recovery (H6-H7)

This thesis hypothesises that customer post-recovery trust in the firm and in the employee will positively impact customer commitment, as illustrated in Figure C3.4. This section includes a discussion of the concept of commitment and provides a theoretical explanation for the above-hypothesised effects.

**Figure C3.4:** Hypothesised link between post-recovery trust and commitment



#### *The Concept of Commitment*

The construct of commitment has been extensively studied in the context of business-to-business and interpersonal relationships (e.g., Anderson and Weitz, 1992; Ganesan, 1994; Morgan and Hunt, 1994). In the above contexts, commitment has been defined as *'a desire to develop a stable relationship, a willingness to make short-term sacrifices to maintain the relationship, and a confidence in the stability of the relationship'* (Anderson and Weitz, 1992, p. 19). Consistent with the above definition, commitment entails both attitudinal (referred to as 'desire') and behavioural components (referred to as 'willingness'). Further, organisational behaviour research identifies a third component - normative commitment (e.g., Allen and Meyer, 1990). The distinction between the above three types of commitment is discussed below.

Attitudinal commitment originates from applied psychology and organisational studies. In the field of applied psychology, Porter *et al.* (1974) define attitudinal commitment as *'an individual's identification with and involvement in a particular organisation'* (p. 604). Attitudinal commitment has also been referred to as 'affective' commitment, which implies that commitment entails feelings of emotional attachment and involvement (Allen and Meyer, 1990). Behavioural commitment originates from

sociology, wherein Becker (1960) refers to commitment as the act of showing consistent behaviour by rejecting feasible alternatives. Normative commitment, on the other hand, entails feelings of obligation to continue the relationship with the firm (Allen and Meyer, 1990). Normative commitment is, therefore, an '*obligation-based attachment to the organisation*' rather than a spontaneous feeling of attachment (Bansal, Irving and Taylor, 2004, p. 236).

The above discussion shows that commitment is a multifaceted construct. Consumer research has, however, seldom embraced the multifaceted nature of this construct. For instance, Kelley and Davis (1994) measure commitment as a general trait of consumers. Similarly, Sharma and Patterson (2000) measure customer commitment to the relationship with the firm as a general belief that '*an ongoing relationship with his/her adviser is worth investing in*' (p. 473). Alternatively, prior studies have measured commitment by aggregating one or more components. For instance, Garbarino and Johnson (1999) measure commitment as a form of psychological attachment, identification and pride of being associated with the organisation. In a few instances, the single components of commitment and their antecedents have been studied. For instance, Bansal *et al.* (2004) distinguish between affective, continuance and normative components of commitment and their precursors. In the above study, customer trust with auto repair services is shown to influence affective commitment, whereas high switching costs influence continuance commitment.

In service recovery research, which is the research domain in this thesis, commitment has been conceptualised as a characteristic of consumers. In this body of research, commitment has been studied as a moderator of customer responses to service failure and recovery encounters. For instance, Mattila (2004) compares customer responses to poor and excellent service recovery between high and low affectively committed customers. In the above study, customers with high affective commitment report greater attitude change than customers with low affective commitment, regardless of the service recovery outcome. Similarly, Evanschitzky, Brock and Blut (2011) examine how affective commitment influences customer decision to lodge a complaint following service failures and to repurchase from the firm. Drawing upon emotional attachment theory, Evanschitzky *et al.* (2011) note that affectively committed customers complain more and have greater tolerance for repeated service failures than customers with low affective commitment. The authors explain that affectively committed customers show tolerance in the attempt to maintain feelings of security. Whilst

acknowledging that commitment can influence customer responses to service failures, as demonstrated in prior studies, this thesis postulates that commitment is *influenced by* service failure and recovery experiences. In particular, the thesis examines *affective* commitment as a customer outcome of post-recovery trust in the firm and in the employee. Theoretical explanation for the hypothesised impact of post-recovery trust on commitment is provided in the section below.

### *The Effect of Post-Recovery Trust on Commitment*

A number of studies in industrial marketing and service research provide empirical support for the trust-commitment relationship (e.g., Ganesan, 1994; Morgan and Hunt, 1994; Ganesan and Hess, 1997). For instance, Morgan and Hunt (1994) show that trust is a main driver of commitment. Similarly, Ganesan (1994) demonstrates that trust between retailer and vendor encourages long-term orientation and commitment of the parties towards the relationship. The authors ascribe the impact of trust on commitment to the parties' confidence in the resolution of conflicts and inequities. Further, in service research, Garbarino and Johnson (1999) find evidence for the trust-commitment link. The authors explain that commitment involves sacrifices and customers are prepared to make such sacrifices when the other party in the relationship (i.e. the firm) can be trusted.

With respect to the trust-commitment link, service recovery research appears scant. To the author's knowledge, only two studies in this domain have empirically investigated the trust-commitment link. These include, Aurier and Siadou-Martin (2007) and Vazquez-Casielles, Suarez Alvarez and Martín (2010). The above studies show that customer perceptions of the firm's benevolence positively influence affective commitment following service recovery. The authors argue that benevolence lowers customer perceived risk associated with the firm's opportunistic behaviour, whilst also enhancing feelings of attachment to the firm. The above studies, however, do not account for the effect of post-recovery trust towards two trust referents – the firm and the employees - on commitment.

Adding knowledge on the trust-commitment link in service recovery encounters, this thesis examines affective commitment as an outcome of post-recovery trust in the firm and in the employee. The thesis postulates that post-recovery trust positively influences customer affective commitment, thus feelings of emotional attachment and involvement in the relationship with the firm. The above-hypothesised effects find



theoretical explanation in signaling and service research. In signaling research, San Martín and Camarero (2005) show that the firm's signals enhance customer trust. Trust fostered through signaling, in turn, lowers customer uncertainty related to the decision to select a firm and ultimately encourages customers to select the signaling firm over the competition. Consistent with the above reasoning, signaling through service guarantee and employee behaviour is expected to enhance customer post-recovery trust in the firm and in the employee (see discussion in Sections C3.2.1-C3.2.4). In turn, post-recovery trust lowers uncertainty related to the decision to maintain the relationship with the firm, whilst also enhancing customer affective commitment. Further, service research shows that trust between the parties in the exchange (i.e. the customer and the firm) leads to commitment by means of building confidence that future conflicts will be resolved effectively (e.g., Garbarino and Johnson, 1999; Bansal *et al.*, 2004). Formally, the following set of hypotheses is developed:

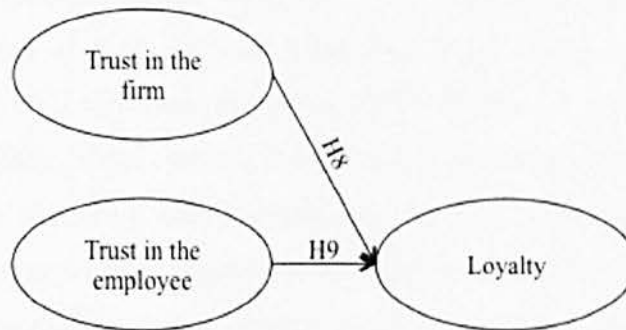
**H6: Following service recovery, customer trust in the firm will have a positive and significant impact on affective commitment.**

**H7: Following service recovery, customer trust in the employee will have a positive and significant impact on affective commitment.**

### C3.2.6 The Link between Trust and Loyalty following Service Recovery (H8-H9)

This thesis hypothesises that customer post-recovery trust in the firm and in the employee will positively impact customer loyalty, as illustrated in Figure C3.5. This section includes a discussion of the concept of loyalty and provides a theoretical explanation for the above-hypothesised effects.

**Figure C3.5:** Hypothesised link between post-recovery trust and loyalty



#### *The Concept of Loyalty*

Consumer research describes customer loyalty as a multifaceted construct. The literature largely distinguishes between two types of loyalty - attitudinal and behavioural (e.g., Chaudhuri and Holbrook, 2001; DeWitt *et al.*, 2008). Attitudinal loyalty denotes customer positive attitudes towards a brand or a firm. Behavioural loyalty designates customer willingness to continue purchasing the brand or revisiting the firm in the future. Behavioural loyalty arguably shares some features with continuance commitment, as both constructs entail customer willingness to continue doing business with the firm. Although the above two constructs seem to overlap, the literature treats commitment and loyalty as separate constructs. For instance, Pritchard, Havitz and Howard (1999) view commitment and loyalty as correlated, but distinct constructs. Echoing the above viewpoint, Sirdeshmukh *et al.* (2002) measure loyalty as customer willingness to generate positive word of mouth, to revisit the firm and to increase the share of spending. Based on the above measurement, loyalty evidently encompasses more than a willingness to continue doing business with the firm (i.e. continuance commitment). Hence, the decision to treat loyalty and commitment as two distinct constructs appears justified. This thesis measures *affective* commitment and *behavioural* loyalty. In the thesis, loyalty denotes customer intentions to revisit the

service firm and to generate positive word of mouth (PWOM), following service failure and recovery encounters.

### *The Effect of Post-Recovery Trust on Loyalty*

This thesis hypothesises that post-recovery trust in the firm and in the employee positively impact customer behavioural loyalty. The link between trust and loyalty is well established in extant marketing research. In this domain, a plethora of studies demonstrates the impact of trust on loyal behaviour (e.g., Morgan and Hunt, 1994; Doney and Cannon, 1997; Ganesan and Hess, 1997; Garbarino and Johnson, 1999; Sirdeshmukh *et al.*, 2002). In the context of customer-firm relationships, Garbarino and Johnson (1999) show that trust and commitment are key antecedents of customer intentions about the future of the relationship with the firm. Similarly, Sirdeshmukh *et al.* (2002) indicate that trust in the firm contributes to perceived value and customer loyalty. In the above study, the effect of trust on loyalty holds when multiple trust referents and components of trust are considered.

In service recovery research, only a handful of studies have investigated the link between customer trust and loyalty. This could be attributed to the relatively small amount of research that investigates trust in service recovery encounters (see discussion in Chapters B1 and B3). In this domain, Rotte *et al.* (2006) show that customer trust based on prior positive encounters becomes uncertain when service failures are encountered, and unsatisfactory recovery follows. In turn, trust uncertainty depletes loyalty. The authors explain that high trust uncertainty increases customer intentions to defect from the firm, thereby lowering loyalty. However, Rotte *et al.* (2006) overlook the role of perceived injustice elicited by unsatisfactory recovery in creating trust uncertainty. DeWitt *et al.* (2008) examine customer loyalty following service failure and recovery encounters. The authors note that perceived justice of service recovery leads to customer loyalty, through the mediation of trust and positive emotions. Similarly, Kim *et al.* (2009) find evidence on the mediating role of trust in the link between perceived justice and loyalty. Whilst providing useful insights on the link between perceived justice, trust and loyalty, the above studies adopt different conceptualisations of justice. In one study, three dimensions of justice are examined separately (e.g., Kim *et al.*, 2009). In another study, three dimensions of justice are combined into a global construct of justice (e.g., DeWitt *et al.*, 2008). The differences in the conceptualisation of justice make the comparison of findings difficult. In order to

clarify the relationship between perceived justice, trust and loyalty in service failure and recovery encounters, this thesis adopts a broader conceptualisation of justice that encompasses four separate justice dimensions – distributive, procedural, interpersonal and informational. Further, the thesis distinguishes between referents of trust – the firm and the employee. The relative effect of the types of justice on trust, and in turn, behavioural loyalty is examined.

The thesis posits that post-recovery trust in the firm and in the employee positively impact behavioural loyalty. The above postulation finds theoretical explanation in service-related and signaling research. In service research, Rotte *et al.* (2006) show that service failures adversely affect customer behavioural intentions. However, the actions taken by the firm and its employees in resolving the problem can signal the firm's commitment towards the relationship with the customer, thereby encouraging customers to reciprocate by showing loyalty (e.g., Rotte *et al.*, 2006; Voorhees, Brady and Horowitz, 2006). Further, signaling research suggests that trust in the relationship partner reduces uncertainty and provides a good reason to preserve the relationship. In particular, Wirtz *et al.* (2000) suggest that the above effect is particularly relevant when dealing with complex services such as services with credence attributes. Credence-based services (i.e. medical and legal services) entail a high level of complexity due to their characteristics, which are difficult to evaluate before and even after consumption (Mortimer and Pressey, 2013).

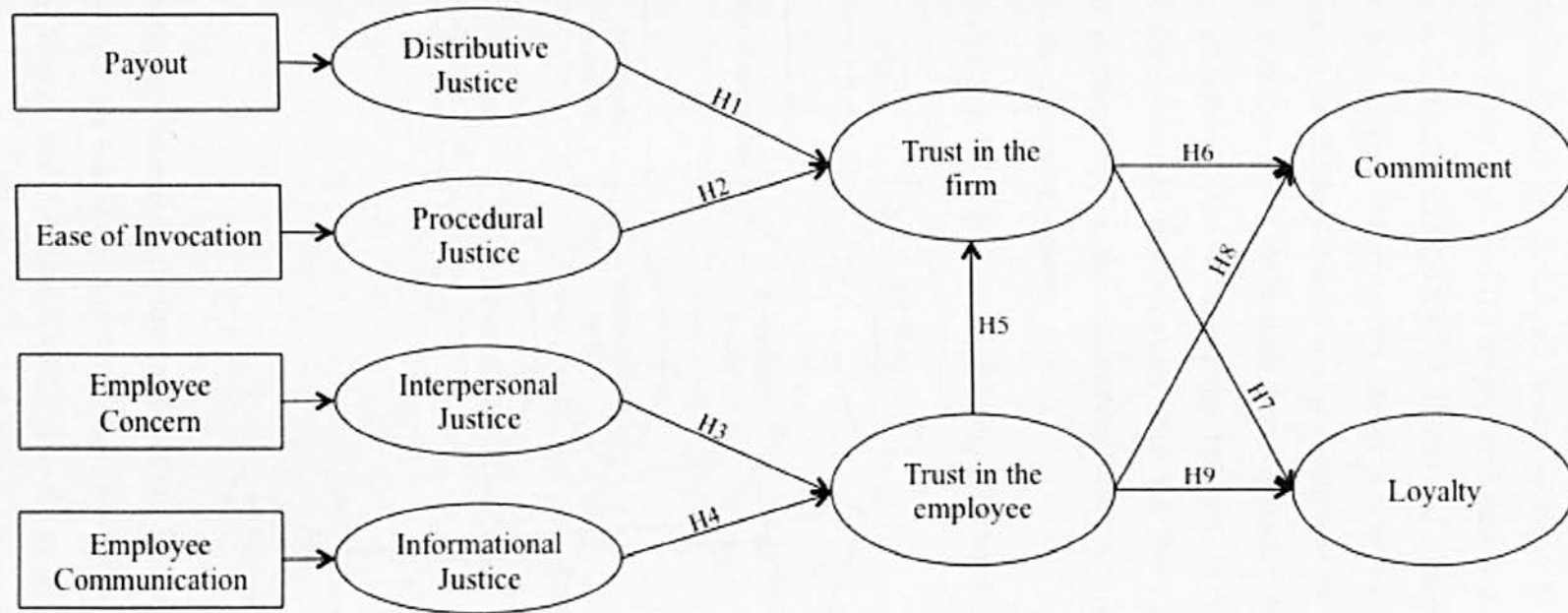
Based on the perspective from signaling research, the trust-loyalty link shows similarities to the process of sending countersignals. As explained by Connelly *et al.* (2011), signaling entails the process of sending and receiving signals. In particular, signalers (i.e. firms) send signals to receivers (i.e. customers), and the receivers send feedback in the form of countersignals. Countersignals indicate that signaling is effective. For instance, low price guarantees signal that the firm offers the lowest price in the market. When customers select the firm offering the low price guarantee, a countersignal is sent to the signaling firm. The countersignal suggests that low price guarantee is an effective promotional strategy. By analogy, this thesis posits that customer loyalty functions as a countersignal. First, customer post-recovery trust acts as a countersignal that service guarantee and employee behaviour at the recovery stage have been effective at signaling trustworthiness. Second, customer loyalty acts as a countersignal that trust in the firm and its employee has lowered customer perceived uncertainty related to repurchase intentions. Diminished uncertainty results in customer

intentions to revisit and to recommend the firm, thus loyalty. Formally, the following set of hypotheses is developed:

**H8: Following service recovery, customer trust in the firm will have a positive and significant impact on loyalty.**

**H9: Following service recovery, customer trust in the employee will have a positive and significant impact on loyalty.**

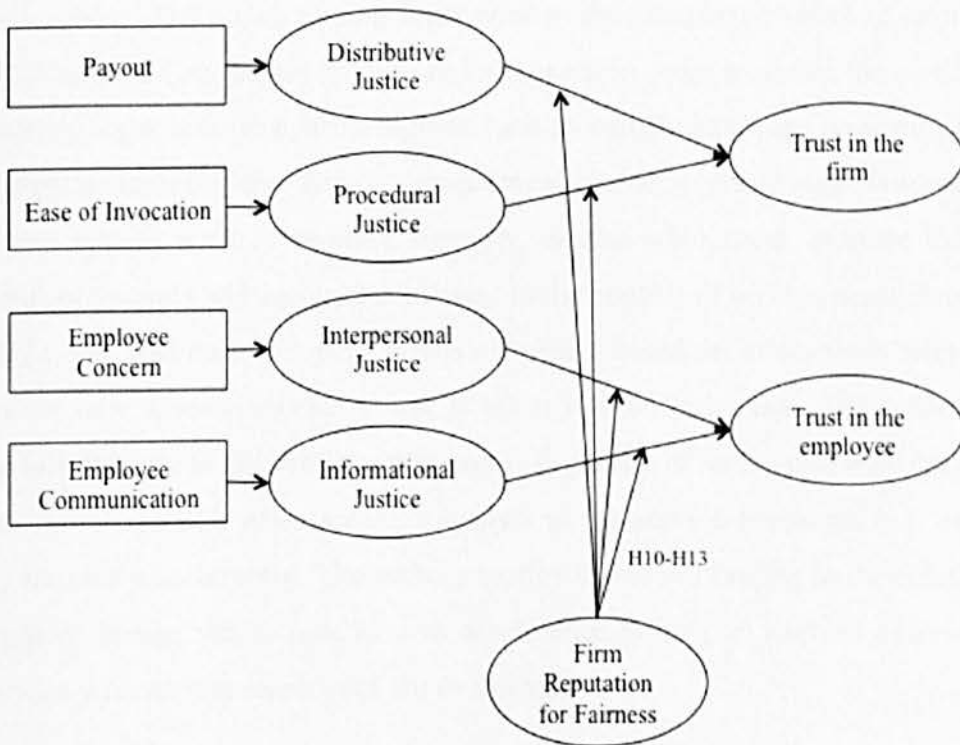
The above-hypothesised relationships are summarised in the conceptual framework below (see Figure C3.6 overleaf).

**Figure C3.6:** Conceptual framework (main effects model)

### C3.2.7 The Moderating Effect of Firm Reputation for Fairness (H10-H13)

Firm reputation for fairness is hypothesised to have a moderating effect on the relationships between, (i) perceived justice elicited by service guarantee and post-recovery trust in the firm, and (ii) employee behaviour and post-recovery trust in the employee, as illustrated in Figure C3.7. Baron and Kenny (1986) define a moderator as a variable that *'affects the direction and/or strength of the relationship between an independent or predictor variable and a dependent or criterion variable'* (p. 1174). Consistent with the above definition, firm reputation for fairness is hypothesised to affect the strength of the relationships between service guarantee and employee behaviour and customer post-recovery trust (in the firm and in the employee). A theoretical explanation for the moderating effect of firm reputation for fairness is provided in the discussion below.

**Figure C3.7:** Hypothesised moderating effect of firm reputation for fairness



Marketing research employing Signaling Theory suggests that the same firm often uses multiple signals concurrently (e.g., Purohit and Srivastava, 2001; Biswas *et al.*, 2002; Walker and Johnson, 2009; Connelly *et al.*, 2011; Jha *et al.*, 2013). The concurrent use of multiple signals influences customer responses to signaling. For instance, Purohit and Srivastava (2001) show that manufacturer reputation, retailer reputation, and product warranty signals of quality interact in shaping customer perceptions of quality. The authors note that customers rely upon product warranty as a signal of quality, when a reputed firm offers the warranty. The above finding is

explained through the lens of the cue diagnosticity framework (Slovic and Lichtenstein, 1971). According to this framework, quality assessments entail a process of categorization of available quality signals. In such process, cues or signals are inspected for diagnosticity, namely *the perceived reliability of a cue in discriminating between alternative categorizations (or interpretations)* (Purohit and Srivastava, 2001, p. 125). Signals that suggest one rather than multiple categorizations are diagnostic, and as such, these are more likely to shape perceptions (i.e. perceptions of quality). Notably, diagnostic signals influence customer perceptions of other signals being used concurrently. Purohit and Srivastava (2001) note that customers use product warranty as a signal of quality when provided by a reputable firm.

Furthermore, Chatterjee *et al.* (2005) demonstrate that customers differentially use certifications and product warranty signals of quality. The authors note that customers are more likely to use certifications, as opposed to product warranty, in order to assess quality. The above finding is ascribed to the dissipative nature of certification signals, where the firm makes an upfront investment in order to obtain the certification. The authors argue that dissipative signals such as certifications are powerful, because these signals indicate the firm's commitment towards preventing failures. Non-dissipative signals such as product warranty, on the other hand, indicate the firm's commitment towards addressing the failures. In the context of service encounters, Jha *et al.* (2013) note that customer perceptions of quality based on interactions with service employees vary when corporate image is taken into consideration. The authors show that signals intrinsic to the service encounter (i.e. quality of interaction with employees) become less diagnostic when signals extrinsic to the service encounter (i.e. corporate image) are used concurrently. The authors ascribe the above finding to the diagnosticity of corporate image, which functions as a reference point (i.e. anchor) against which interactions with service employees are evaluated.

Building on the argument that the same firm often uses multiple signals concurrently, this thesis investigates how service guarantee, employee behaviour and firm reputation for fairness function as signals and interact in service recovery encounters. Firm reputation represents an implicit guarantee (Ostrom and Iacobucci, 1998). In this thesis, firm reputation for fairness acts as a signal of trustworthiness of the firm and its staff. As such, firm reputation for fairness moderates the relationships between perceived justice elicited by service guarantee and employee behaviour and customer post-recovery trust in the firm and in the employee. The thesis posits that the



efficacy of service guarantee and employee behaviour as signals of trustworthiness is likely to vary according to firm reputation for fairness.

Consistent with prior signaling research (e.g., Chatterjee *et al.*, 2005; Basuroy *et al.*, 2006; Jha *et al.*, 2013), this thesis posits that the perspective from the cue diagnosticity framework can provide a theoretical explanation for the interplay between service guarantee, employee behaviour and firm reputation for fairness in service recovery encounters. According to this perspective, most diagnostic signals discount the effect of other (less diagnostic) signals being used concurrently. For instance, Jha *et al.* (2013) show that positive corporate image provides customers with implicit information about quality and it discounts the effect of employee interaction quality in shaping customer satisfaction and loyalty.

Similarly, in the context of service guarantees, Wirtz *et al.* (2000) show that the provision of a service guarantee (explicit promise) enhances perceptions of quality for hotels with good reputation, more than for hotels with outstanding reputation for quality. As explained earlier by Ostrom and Iacobucci (1998), the firm's image of outstanding quality provides sufficient information about the quality of the service offering. In such instances, service guarantee signals are redundant. Although the above studies do not directly account for signal diagnosticity, it is implicit that firm reputation is a diagnostic signal, and as such, this attenuates the effect of other signals being used concurrently.

Consistent with the above reasoning, this thesis posits that the effect of distributive and procedural justice elicited by high payout and by EoI on post-recovery trust in the firm will be stronger when the firm holds weak reputation for fairness. Strong reputation for fairness, on the contrary, discounts the effect of distributive and procedural justice elicited by high guarantee payout and EoI. Accordingly, the following set of hypotheses is developed:

**H10: Firm reputation for fairness will moderate the relationship between distributive justice elicited by high guarantee payout and customer post-recovery trust in the firm, such that the effect of distributive justice will be weaker (stronger) for customers who perceive the firm reputation for fairness to be good (poor).**

**H11: Firm reputation for fairness will moderate the relationship between procedural justice elicited by the ease of invoking the guarantee and customer post-recovery trust in the firm, such that the effect of procedural justice will be weaker (stronger) for customers who perceive the firm reputation to be good (poor).**

The above discussion provides a theoretical rationale for the moderating effect of firm reputation for fairness on the relationship between employee behaviour and post-recovery trust in the employee. Consistent with the perspective from Signaling Theory, the effect of interpersonal and informational justice elicited by employee concern and communication on post-recovery trust in the employee will weaken when the firm has good reputation for fairness. In this sense, reputation for fairness is a highly diagnostic signal and discounts the effect of other signals being used concurrently - employee concern and communication at the recovery stage. Hence, the following set of hypotheses is developed:

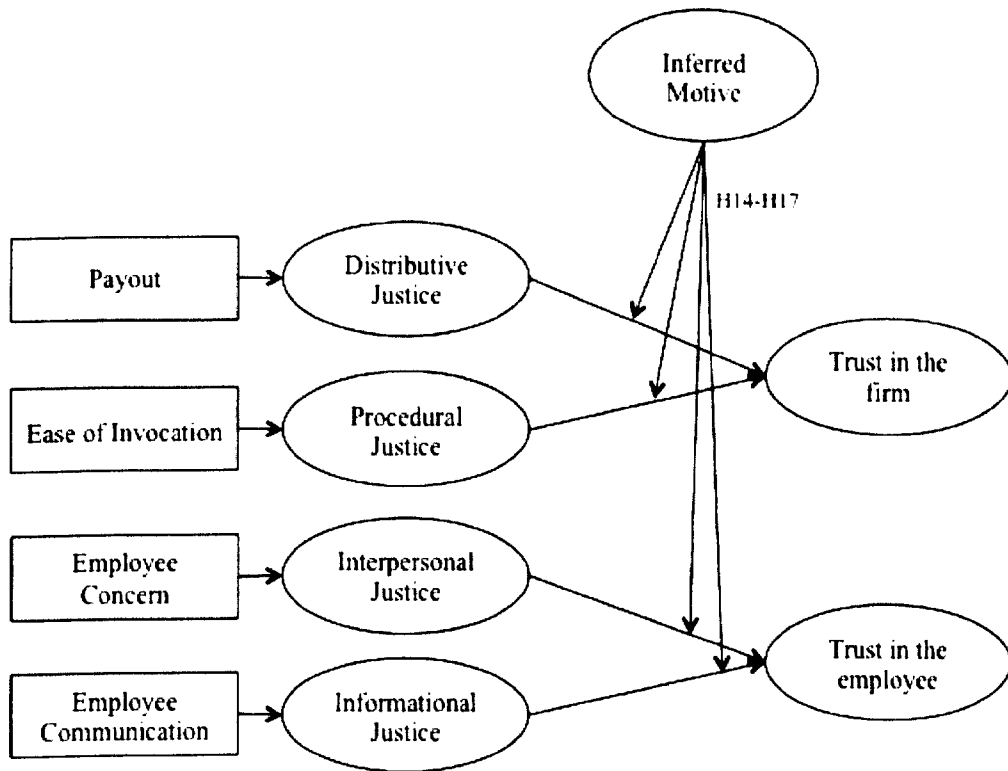
**H12: Firm reputation for fairness will moderate the relationship between interpersonal justice and customer post-recovery trust in the employee, such that the effect of interpersonal justice will be weaker (stronger) for customers who perceive the firm reputation to be good (poor).**

**H13: Firm reputation for fairness will moderate the relationship between informational justice and customer post-recovery trust in the employee, such that the effect of informational justice will be weaker (stronger) for customers who perceive the firm reputation to be good (poor).**

### C3.2.8 The Moderating Effect of Inferred Motive (H14-H17)

Inferred motive is hypothesised to have a moderating effect on the relationships between, (i) service guarantee and post-recovery trust in the firm, and (ii) employee behaviour and post-recovery trust in the employee, as illustrated in Figure C3.8 below. A theoretical rationale for the moderating effect of inferred motive is provided below.

**Figure C3.8:** Hypothesised moderating effect of inferred motive



Extant marketing research suggests that inferred motive contributes to explaining customer perceptions of fairness. For example, in pricing research, Campbell (1999) shows that customers form differential perceptions of fairness towards price increases depending on their inferences about the firm's motives for introducing a price increase. In the above study, customers perceive the price increase to be unfair when inferring that the firm intends to increase profits (negative motive). However, customers perceive the price increase to be fair when this is driven by the firm's intentions to invest profits into a good cause. Further, research suggests that inferred motive contributes to shaping customer perceptions of fairness towards price guarantees. For instance, Kukar-Kinney *et al.* (2007) show that customers report perceptions of unfairness when inferring that the price guarantee is aimed at increasing sales and profits (negative motives), as compared to signaling low prices (positive motives). In the context of service guarantees, there are also speculations that inferred motive plays

an important role in shaping customer perceptions. By conducting focus groups, Björlin Lidén and Edvardsson (2003) note that customers are suspicious of service guarantees that meet the firm's need to create a steady flow of customers (negative motive). Similarly, McQuilken *et al.* (2013) speculate that the size of guarantee payout can raise customer suspicion about the intentions of the firm. However, the above speculations lack support from empirical evidence. Overall, the above discussion indicates that service guarantee design elements and firm's actions trigger customer inferences about the firm's motives, which in turn shape perceptions of fairness and consequent attitudes.

The concept of inferred motive stems from the Attribution Theory in social psychology (Heider, 1958). Service recovery research demonstrates the relevance of Attribution Theory in explaining customer responses to service failures (e.g., Swanson and Kelley, 2001; Hess *et al.*, 2003). As discussed in Chapter B1 of this thesis, prior studies in service recovery research have examined three forms of causal attributions – locus, stability and controllability (e.g., Blodgett, Granbois and Walters, 1993; Swanson and Kelley, 2001; Hess *et al.*, 2003; Wirtz and Mattila, 2004; deMatos *et al.*, 2007; Vazquez-Casielles *et al.*, 2009; Van Vaerenberg *et al.*, 2014). The above studies focus on causal attributions about service failures, whilst overlooking attributions about service recovery. Moreover, attributions related to inferred motive have been overlooked in prior research. An exception is the study by Joireman *et al.* (2013). The authors investigate inferred motive following 'double deviation' scenarios, wherein both the initial service and the recovery fail. Nonetheless, the authors do not consider perceptions of justice. In a meta-analysis of failure-related attributions, Van Vaerenberg *et al.* (2014) call for further research that investigates how causal attributions explain the boundary conditions of the perceived justice-customer outcomes link.

Answering the above call for further research, this thesis examines the role of inferred motive in the context of one-off service failure and recovery encounters, wherein the service guarantee is invoked. Consistent with Joireman *et al.* (2013), this thesis defines 'inferred motive' as the extent to which customers believe that the firm's decision to use the guarantee policy and that employee actions at the recovery stage are driven by self-interests of maximising profits. This thesis postulates that the effect of perceived justice elicited by service guarantee on post-recovery trust in the firm will be contingent upon customer inferences as to the firm's motives for offering the service guarantee (moderating effect).

The moderating effect of inferred motive finds theoretical support in signaling research. Signals are typically used to convey information about the intentions and unobservable attributes of the firm (e.g., Kirmani and Rao, 2000; San Martín and Camarero, 2005). When evaluating signals, customers form perceptions about the firm's attributes and infer the firm's intentions. As pointed out by San Martín and Camarero (2005), customers assess the intentions of the firm in an effort to understand whether the firm is being opportunistic, and it is taking advantage of conditions of information asymmetry by engaging in false signaling. Research suggests that consumers infer the firm's motives from the specific terms of the guarantee policy, such as guarantee payout (Kukar-Kinney *et al.*, 2007). The size of payout indicates the firm's commitment to incur a cost following a service failure (e.g., Hart *et al.*, 1992; McDougall *et al.*, 1998; San Martín and Camarero, 2005). The greater the size of guarantee payout, the higher the cost the firm incurs when providing compensation for the service failure, and indirectly, higher the firm's commitment towards maintaining the relationship with the customer. It follows that distributive justice elicited by high guarantee payout would enhance customer post-recovery trust in the firm (see discussion in Section C3.2.2). The effect of distributive justice on post-recovery trust in the firm is, however, contingent upon customer beliefs as to whether the firm's decision to introduce the guarantee is driven by negative motives (i.e. increase customer repurchase rate, profits). As negative motives are inferred, the effect of distributive justice on post-recovery trust in the firm is attenuated. The same effect is, however, strengthened when customers report low inferences of negative motives.

Similarly, the effect of procedural justice elicited by EoI on post-recovery trust in the firm is expected to weaken as negative motives are inferred. Signaling research contends that guarantees are meaningful when easy-to-invoke (Hart, 1988). By setting easy procedures of invocation, the firm signals its commitment towards delivering timely recovery and its confidence that customers will avoid opportunistic claiming (Wirtz and Kum, 2004). By using difficult-to-invoke guarantees, on the other hand, the firm signals its attempt to discourage customers from claiming the policy (e.g., Hart, 1988; Hart *et al.*, 1992; Wirtz and Kum, 2004). It follows that perceptions of procedural justice elicited by EoI would enhance customer post-recovery trust in the firm (see discussion in Section C3.2.2). The effect of procedural justice elicited by EoI on post-recovery trust in the firm is, however, expected to attenuate when customers believe that the firm's decision to introduce the guarantee is driven by negative motives (i.e. increase repurchase rate, profits). Hence, the following set of hypotheses is developed:

**H14: Inferred (negative) motive will moderate the relationship between distributive justice elicited by payout and post-recovery trust in the firm, such that the effect of distributive justice will be weaker (stronger) for customers who infer more (less) negative motives.**

**H15: Inferred (negative) motive will moderate the relationship between procedural justice elicited by the ease of invoking the guarantee and post-recovery trust in the firm, such that the effect of procedural justice will be weaker (stronger) for customers who infer more (less) negative motives.**

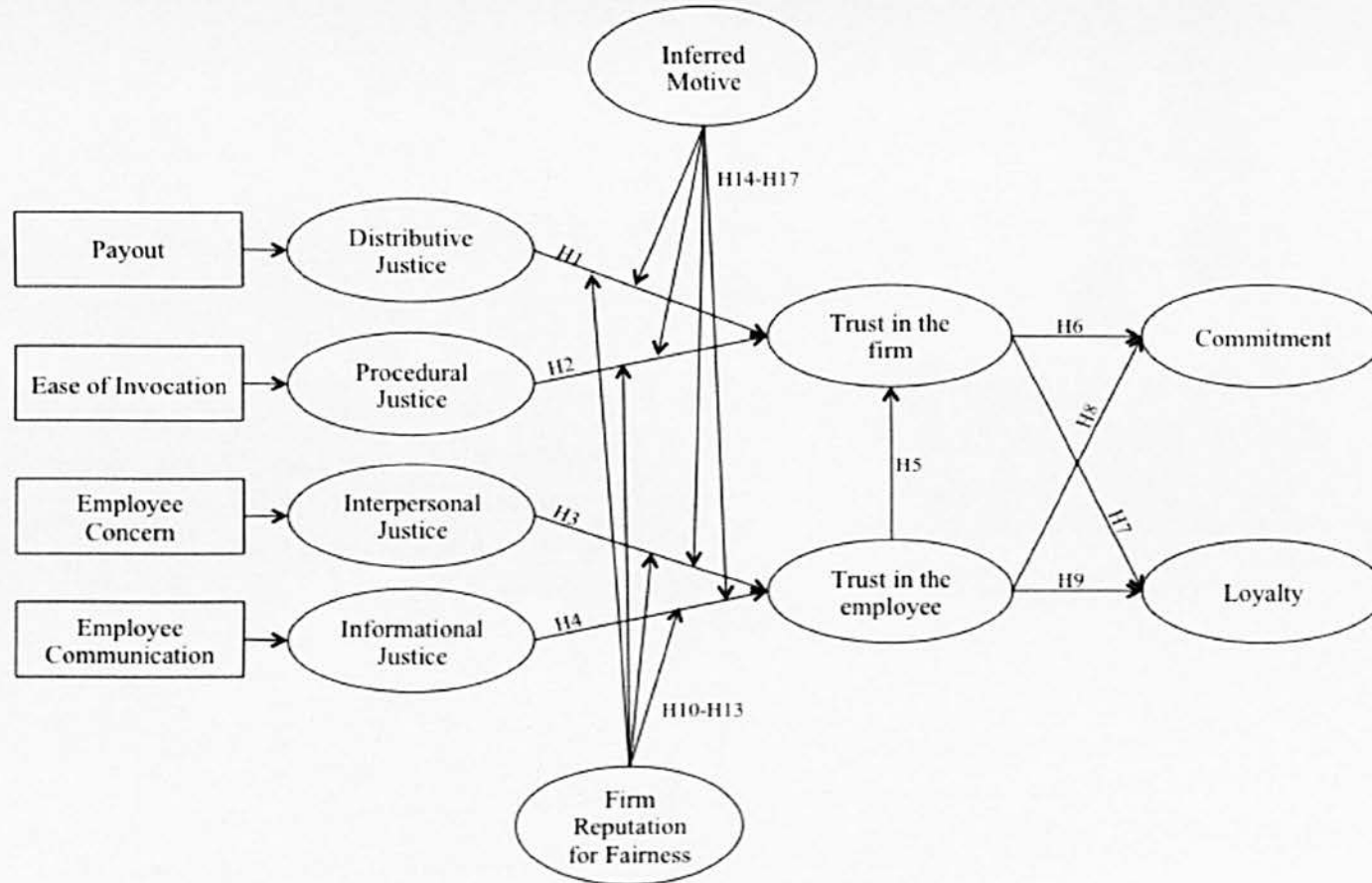
The above logic provides a theoretical explanation for the moderating effect of inferred motive on the relationship between perceived justice elicited by employee behaviour at the recovery stage and post-recovery trust in the employee. Consistent with signaling research (San Martín and Camarero, 2005), employee concern and communication indicate that employees have been trained and that resources are invested in complaint handling. Customers are likely to interpret interpersonal and informational justice elicited by employee behaviour as credible signals of employee trustworthiness, when low negative motives about employee behaviour are inferred. The effect of interpersonal and informational justice on customer post-recovery trust in the employee is, therefore, expected to strengthen when less negative motives are inferred. Conversely, the effect of interpersonal and informational justice on customer post-recovery trust in the employee will attenuate when more negative motives about employees' actions are inferred (i.e. promotion on the job). When inferring negative motives, customers interpret employee behaviour at the recovery stage as a signal of opportunistic behaviour. Formally, the following set of hypotheses is developed:

**H16: Inferred (negative) motive will moderate the relationship between interpersonal justice elicited by employee concern and post-recovery trust in the employee, such that the effect of interpersonal justice will be weaker (stronger) for customers who infer more (less) negative motives.**

**H17: Inferred (negative) motive will moderate the relationship between informational justice elicited by employee communication and post-recovery trust in the employee, such that the effect of informational justice will be weaker (stronger) for customers who infer more (less) negative motives.**

The above-hypothesised relationships are summarised in the conceptual framework below (see Figure C3.9 overleaf).

**Figure C3.9:** Conceptual framework (interaction effects model)



# **PART D**

## Methodology



## PART D: METHODOLOGY

### OUTLINE OF PART D

Having defined the research objectives and hypotheses, the next step in the research process entails the design of the research. In this respect, a number of methodological decisions have to be made. Specifically, decisions are made regarding the research design, the research strategy, the level of analysis and the temporal aspect of the research (Bryman and Bell, 2011; Sekaran and Bougie, 2013). Similarly, decisions related to measurement, data collection and analysis, are undertaken. For *measurement*, considerations are made as to the operational definition of the variables of interest, to the selection of measures for the research and their psychometric properties (reliability and validity). For *data collection*, considerations are made as to the instrument of data collection, the mode of administration and the sample of respondents from which to obtain data. For *data analysis*, considerations are made as to type of data available and the efficacy of available approaches for testing the research hypotheses.

Consistent with the above, Part D presents the methodology employed in this thesis. This Part comprises three chapters addressing key methodological aspects – research design, measurement, sampling, data collection and analysis. The outline of Part D is as follows:

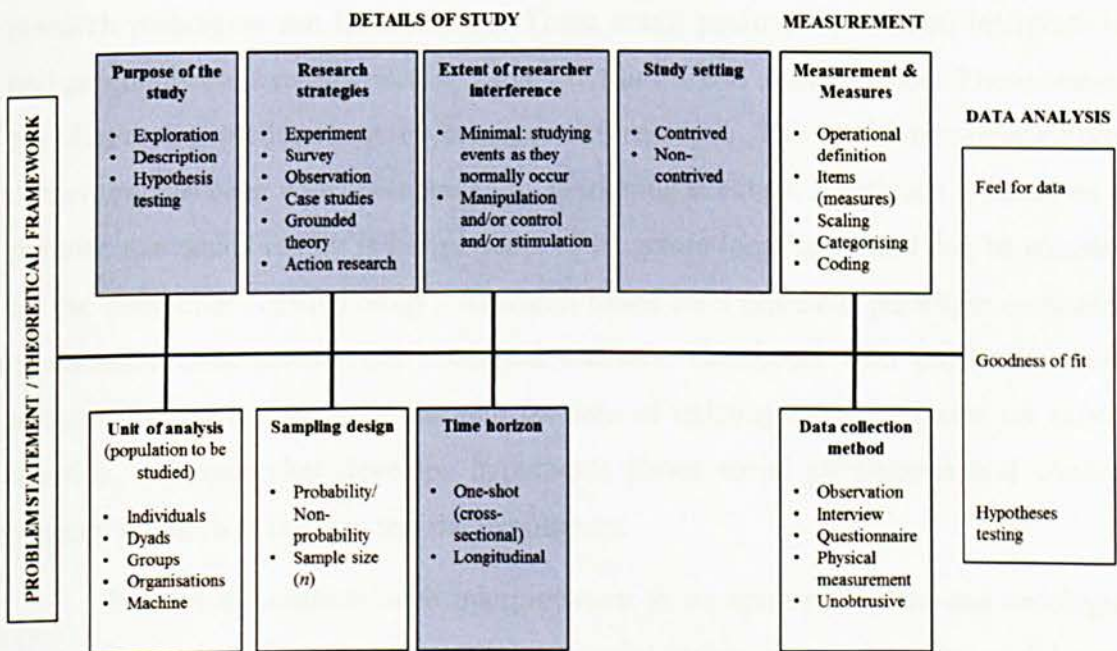
- **Chapter D1** presents the research paradigm, along with the research strategy, the unit of analysis and the time horizon for the research.
- **Chapter D2** describes the process followed in order to develop the data collection instrument. In this chapter, the measures and measurement employed in the research are also presented.
- **Chapter D3** entails a discussion of the sampling design adopted in this thesis, including details of the sampling strategy and sample size. This chapter ends with an overview of the analytical methods employed in the thesis.

## CHAPTER D1: RESEARCH PARADIGM AND DESIGN

### D1.1 INTRODUCTION AND OUTLINE OF THE CHAPTER

This thesis follows the research design framework advocated by Sekaran and Bougie (2013) and illustrated in Figure D1.1 below. This research design framework provides guidelines on the fundamental considerations made in relation to sampling, data collection and analysis. Chapter D1 focuses on the blue shaded cells in Figure D1.1 below. The outline of Chapter D1 is as follows. First, the chapter includes a discussion of the epistemological and ontological assumptions made by the author of this thesis and based on which decisions related to research design are undertaken. Next, the purpose of the research and the research strategy are discussed, along with the extent of the researcher interference, the setting and the time horizon for the research.

**Figure D1.1:** Research design framework – Research Design



Source: Sekaran, U. and Bougie, R. (2013) *Research methods for business. A Skill Building Approach*, 6<sup>th</sup> edn. Chichester: John Wiley & Sons, p. 95.

## D1.2 RESEARCH PARADIGM

The researcher's philosophical orientation commonly informs decisions related to the research methodology (Blaikie, 2007; Bryman and Bell, 2011). Given its importance in scientific enquiry, the philosophical stance of the author in this thesis is here discussed. The researcher's philosophical orientation is based on the ontological and epistemological assumptions made about social reality. Ontological assumptions entail the researcher's view on '*the nature of reality*' and the way the world functions (Saunders and Thornhill, 2008, p. 110). Epistemological assumptions concern the definition of '*what constitutes acceptable knowledge in the field of study*' (Saunders and Thornhill, 2008, p. 112). Assumptions about ontology and epistemology are linked, given that the way in which reality is seen (ontology) inevitably influences how such reality is analysed and explained (epistemology).

Based on the intersection of ontological and epistemological assumptions, four research paradigms can be identified. These entail positivism, realism, interpretivism and pragmatism, as summarised in Table D1.1 at the end of this section. These research paradigms are predominant in management research. The positivism-interpretivism dichotomy has been widely embraced by marketing scholars. Positivism is based on the premise that social reality is independent of its actors (ontology), and can be *measured* by the researcher (epistemology). Research based on a positivist paradigm emphasises quantifiable observations and statistical analysis. Consistent with positivism, social phenomena can be explained through the lens of existing theories. Based on existing theories, the researcher develops hypotheses about social phenomena and conducts primary research in order to test the hypotheses.

Positivism contrasts with interpretivism in its epistemological and ontological assumptions. According to interpretivism, social reality is *construed* by social actors (ontology) and can therefore be understood through the words and meaning of social actors (epistemology). It follows that observation and (verbal) accounts from social actors construing reality are commonly used methods for understanding reality (Saunders and Thornhill, 2008). Research following an interpretivist paradigm often employs data collection methods such as interviews, focus groups or ethnography, in order to extract meaning from the accounts of social actors. In marketing research, positivism has long upheld legitimacy. This is evidenced by the amount of studies in this domain focusing on hypotheses testing, measurement and statistical analysis.

Consistent with prior marketing research, the research objectives set in this thesis (see Part A) and the aim to test the conceptual framework (see Part C), this thesis follows a positivist research paradigm. In relation to ontology, the thesis is based on the premise that service failure and recovery events are objective reality. These events can therefore be captured and measured. In relation to epistemology, the thesis argues that customer responses to service failure and recovery encounters can be measured objectively, by using established scales. The author of this thesis draws on well-established theories from the fields of social psychology and information economics in order to develop the conceptual framework of the research and the research hypotheses. In order to verify the research hypotheses, primary data are collected and statistical techniques are used for the analysis of data.

**Table D1.1:** Four research paradigms in management research

	<b>Positivism</b>	<b>Realism</b>	<b>Interpretivism</b>	<b>Pragmatism</b>
<b>Ontology:</b> <i>the view about the nature of reality or being</i>	External, objective, independent of social actors	Objective. Exists independently of human thoughts and beliefs. Interpreted through social conditioning	Socially constructed, subjective, constantly changing	External, selected view is the one that best enable to answer the research question
<b>Epistemology:</b> <i>the view about what constitutes acceptable knowledge</i>	Observable phenomena provide credible data, facts. Focus on causality and generalisations	Observable phenomena provide credible data, facts. Sensations are open to misinterpretation.	Subjective meanings. Focus upon details and the reality behind details, subjective meanings motivate actions	Observable phenomena and subjective meanings provide acceptable knowledge. Focus on integrating perspectives to interpret the data
<b>Data collection techniques</b>	Structured, large samples, measurement	Quantitative or qualitative	Small samples, in-depth investigations	Mixed or multiple method designs

Source: Adapted from Saunders, M.N.K. and Thornhill, A. (2008) *Research methods for business students*. Harlow: Pearson Education Limited, p. 119.

### D1.3 PURPOSE OF THE RESEARCH

Based on the purpose of the research, Sekaran and Bougie (2013) identify three approaches to research - exploratory, descriptive and hypothesis testing. The selection of one or the other approach is driven by the research aim and objectives, and the research paradigm. The relevance of the identified approaches to this thesis is discussed below.

#### *Exploratory Research*

The purpose of exploratory research is to gain a first insight on a particular phenomenon or research problem, which is relatively unexplored. As Saunders and Thornhill (2008) explain, exploratory research is particularly useful when the nature of the research problem is unclear. The authors point out that literature search and review exemplify exploratory research, along with interviews and focus groups. In this thesis, exploratory research was undertaken by means of conducting a review of the literature in three research streams – service recovery, signaling and customer trust (see Part B of this thesis). By undertaking exploratory research in the form of a literature review, the author of this thesis was able to identify a number of research gaps and to develop the conceptual framework for the research (see Part C of this thesis).

#### *Descriptive Research*

Descriptive research attempts to describe events and/or situations (Saunders and Thornhill, 2008). Unlike exploratory research, descriptive research is based upon prior evidence and a clear account of the social phenomenon under investigation. Descriptive research is often an extension of exploratory research. Malhotra and Birks (2007) refer to descriptive research as an example of ‘conclusive’ research, namely structured research, based on a clearly defined design, large samples and quantitative data analysis. Given the aim of this thesis to test the conceptual framework developed for the research and related hypotheses, hypothesis testing research is conducted, as discussed below.

#### *Hypothesis Testing*

The purpose of hypothesis testing research is ‘to explain the nature of certain relationships, or establish differences among groups or the interdependence of two or

*more factors in a situation*' (Sekaran and Bougie, 2003, p. 124). Hypothesis testing research requires a clearly defined research design, and it attempts to verify the associations and/or causal relationships between variables. Malhotra and Birks (2007) distinguish between *correlational* and *causal* hypothesis testing research. Correlational research focuses on explaining associations between variables, whereas causal research attempts to verify causal (cause-effect) relationships. Experimentation is a recommended method for conducting causal research (Malhotra and Birks, 2007). Experiments allow the researcher to manipulate the independent variable (cause) and test its impact on the dependent variable (effect) in a controlled setting. Considering the aim of this thesis to test causal relationships between the variables included in the conceptual framework, this thesis conducts causal hypothesis-testing research.

#### **D1.4 RESEARCH STRATEGY AND DESIGN**

Sekaran and Bougie (2013) distinguish between several types of research strategies and designs, including survey, experiment, observation, case study, grounded theory and action research. Given the objectives of the research conducted in this thesis, three of the research designs discussed by Sekaran and Bougie (2013) were considered. These included: experiments, survey and observation. The above three designs are discussed below with a view of providing the rationale for selecting the experimental design.

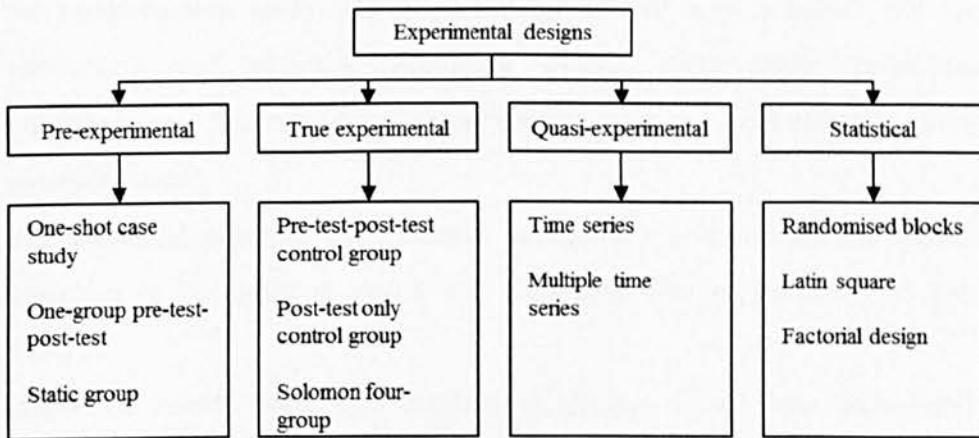
Experiments are a suitable strategy to establish causal relationships. Unlike experiments, surveys are associated with exploratory, descriptive as well as hypothesis testing research. Surveys are typically conducted by using a questionnaire and allow the researcher to describe and explain attitudes and behaviour. Observation, on the other hand, entails the process of recording, analysing and interpreting the behaviour of people whilst watching them acting in a natural or artificial setting. The aim and objectives of the study, as well as resource constraints, typically inform the selection of one or the other research strategy. In this thesis, an experimental design was selected. This selection is consistent with the aim of the thesis to test the proposed conceptual framework (see Part C of this thesis) and to inspect the causality of the hypothesised relationships.

Malhotra and Birks (2007) indicate that inferences of causal relationships can be made on the basis that the following assumptions are met: (1) cause and effect vary simultaneously in the way predicted by the researcher (concomitant variation), (2) the

cause occurs either before or simultaneously with the effect (time order of occurrence), and (3) other possible causes are absent (elimination of possible causal factors). In this thesis, causal relationships between perceived justice and customer post-recovery trust are expected to vary simultaneously (concomitant variation), perceived justice is expected to lead to customer post-recovery trust (time order of occurrence), perceived justice is manipulated and the validity of the experimental manipulations is established by means of pre-testing (elimination of possible causal factors).

Experimental designs have been classified by Malhotra and Birks (2007), as illustrated in Figure D1.2.

**Figure D1.2:** A classification of experimental designs



Source: Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Prentice Hall, p. 312.

According to the above classification, four main types of experimental design exist - pre-experimental, true experimental, quasi-experimental and statistical. *Pre-experimental designs* entail experiments in which there is no randomisation of respondents to experimental groups. Malhotra and Birks (2007) report one-shot case study, one-group pre-test post-test as examples of pre-experimental designs. Unlike pre-experimental designs, *true experimental designs* employ randomisation in order to control for external factors, such as personal characteristics of respondents. *Quasi-experimental designs* entail experiments where only some, but not all aspects of experimentation are included. *Statistical experimental designs* entail experiments in which there is typically statistical control and external variables are analysed.

A factorial experimental design was deemed appropriate for this thesis. Factorial designs enable the research to measure the effect of two or more independent variables (or factors) on the dependent variable (Malhotra and Birks, 2007). In this thesis, the

factors include the four dimensions of justice and firm reputation for fairness (see also discussion in Section D1.4.5). In particular, a scenario-based experiment was employed. Scenario-based experiments entail the design of hypothetical scenarios containing experimental manipulations. The hypothetical scenarios are typically embedded into self-completion questionnaires, which are randomly assigned to respondents.

#### **D1.4.1 Rationale for the Adoption of a Scenario-based Experiment**

The decision to use a scenario-based experiment was based upon the following considerations:

- the **phenomenon under investigation**: given that service failure and recovery encounters are naturally occurring events, observation techniques are uneconomical. Scenario-based experiments provide a cost-effective alternative to observation;
- **experimental control**: experimental scenarios allow for the manipulation of variables to be easily executed and controlled (Bitner, Booms and Tetreault, 1990);
- issues of **recall bias**: this method minimises recall bias associated with retrospective, self-reporting techniques such as the Critical Incident Technique (e.g., DeWitt *et al.*, 2008; Roggeveen, Tsiros and Grewal, 2012);
- issues of **method bias**: this method minimises the potential for method bias associated with negative affectivity, namely '*the propensity of respondents to view themselves or the world around them in generally negative terms*' (Podsakoff *et al.*, 2003, p. 882). Negative affectivity is likely to occur in the process of asking respondents to remember unsatisfactory service encounters. By doing so, respondents may experience transient negative mood states, which may ultimately affect their responses (i.e. negative affectivity bias). The above method bias is overcome when using scenario-based questionnaires; and
- **methodological considerations in prior service recovery research**: this method has been widely adopted in consumer research, and in service recovery research in particular (e.g., Wirtz and Kum, 2001; Liao, 2007; Bonifield and Cole, 2008; Van Vaerenberg, Larivière and Vermeir, 2012).

It is acknowledged that experiments, including scenario-based experiments, are not short of limitations. There are diffused concerns about the ecological and external



validity of experimentation (Malhotra and Birks, 2007). In particular, the extent to which the situation depicted in the hypothetical scenarios is realistic (ecological validity) and it can be generalised to real life situations (external validity) is often questioned. In order to offset the above concerns, scholars recommend the use of pre-testing and pilot testing (e.g., Lynch, 1982; Perdue and Summers, 1986). Following the above recommendations, this thesis conducted extensive pre-testing and a full pilot study prior to the main study (see discussion in Chapter E1 of this thesis).

#### D1.4.2 Randomisation

Randomisation of experimental conditions represents a key consideration to make when conducting experiments. Based on randomization, Field and Hole (2003) identify three types of experimental design: between-subjects, within-subjects and hybrid. *Between-subjects designs* (also referred to as ‘independent measures’) entail the random assignment of experimental conditions to groups of participants, such that each group is exposed to one experimental condition only. This means that only one score is obtained from each respondent. *Within-subjects designs* (also referred to as ‘repeated measures’) entail the assignment of ALL experimental conditions to each respondent. Hence, each respondent is exposed to multiple experimental conditions in sequence. *Hybrid designs* (also referred to as ‘mixed’) involve a combination of between-subjects and within-subjects designs.

As explained by Field and Hole (2003), all three designs entail advantages and disadvantages (see Table D1.2). When compared within-subjects designs, between-subjects designs have the advantage of minimising the risk of fatigue effect. The risk of fatigue effect is incurred when using within-subjects designs, wherein *more than one* experimental condition is assigned to each respondent. In such instances, carry-over effects can also be incurred, whereby respondents change their responses as they move from one experimental condition to the next. Nonetheless, within-subjects designs are cost effective, given that multiple responses are obtained from the same respondent.

**Table D1.2:** Between-subjects versus within-subjects designs

	Between-subjects	Within-subjects
Simplicity	High	Low
Fatigue effect	Low	High
Economy	Low	High
Sensitivity	Low	High
Carry-over effects	Low	High

This thesis employed a between-subjects design. This design minimises the risk of fatigue or carry-over effects typically associated with within-subjects designs. Carry-over effects can be addressed by means of counterbalancing the order in which the experimental conditions are presented to respondents. However, counterbalancing can be difficult to implement, especially when the research includes several experimental conditions (Field and Hole, 2003). Considering that this thesis includes several manipulations, counterbalancing would have been difficult. Hence, the within-subjects design was discarded.

#### **D1.4.3 Study Setting and Researcher Interference**

As advocated by Sekaran and Bougie (2013), research can be conducted in contrived and non-contrived settings. Contrived settings are artificial settings, in which the research takes place (i.e. laboratory). Non-contrived settings are 'natural' settings, in which respondents operate on a daily basis. Correlational studies are commonly conducted in non-contrived settings. Causal studies, on the other hand, are often carried out in contrived settings such as laboratories. In causal studies, the researcher deliberately manipulates certain variables in order to examine the effect of such manipulations on the dependent variables (Saunders and Thornhill, 2008; Sekaran and Bougie, 2013). By doing so, the researcher is likely to exert some interference with the natural setting in which respondents behave. Based on the distinction between contrived and non-contrived settings, the literature refers to *field* and *laboratory* experiments. Field experiments are conducted in market conditions (i.e. non-contrived settings), whereas laboratory experiments take place in artificial settings such as a laboratory (i.e. contrived setting). Malhotra and Birks (2007) identify some of the key differences between field and laboratory experiments, as summarised in Table D1.3 at the of this section.

Laboratory experiments entail greater internal validity than field experiments due to the high level of control the researcher can exercise over the manipulations and the influence from external factors. Laboratory experiments are conducted with geographically restricted samples, thus tend to be easier and more cost effective than field experiments. However, laboratory experiments can suffer from low external validity and demand artefacts (Malhotra and Birks, 2007). The use of artificial settings raises questions about the extent to which research findings are generalizable to real life contexts (i.e. external validity). Likewise, concerns are often raised about the risk that

respondents may guess the purpose of the experiment and react in a socially desirable manner (i.e. demand artefacts). This thesis was conducted in a non-contrived research setting, using hypothetical scenarios and the manipulation of factors within the scenarios. The author of the thesis did not exert interference in the research, given that respondents were not aware of the experimental manipulations and were asked to complete the questionnaire autonomously. Concerns relating to external validity and demand artefacts were offset by pre-testing the questionnaire (see also Chapter E1 of this thesis).

**Table D1.3:** Differences between field and laboratory experiments

<b>Factors</b>	<b>Laboratory</b>	<b>Field</b>
Environment	Artificial	Realistic
Control	High	Low
Reactive error	High	Low
Demand artefacts	High	Low
Internal validity	High	Low
External validity	Low	High
Time	Short	Long
Number of units	Small	Large
Ease of implementation	High	Low
Cost	Low	High

Source: Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Prentice Hall, p. 322.

#### **D1.4.4 Service Contexts under Investigation**

The thesis selected Banking and Car Repair as service contexts for the research in the light of the following considerations. *First*, banking and car repair services have credence attributes, namely attributes that are often unobservable and difficult to evaluate before and even after consumption (Zeithaml, 1981). In car repair, for instance, once a car has been repaired, it can be difficult to establish the extent to which the service was performed to the expected standards, due to the credence attributes of car repair services. Credence-based services entail high levels of risk. Research by Mitra, Reiss and Capella (1999) shows that services high in credence attributes carry greater social, financial and psychological risk than experience services. Due to the risk associated with credence-based services, trust is a major concern for consumers. Echoing the above viewpoint, Wirtz, Chew and Lovelock (2012) state that *'for services high in credence attributes, one must trust'* (p. 193). Further, in order to overcome perceived risk, customers tend to rely heavily upon signals when evaluating their service experience (e.g., Ostrom and Iacobucci, 1995; Walsh and Beatty, 2007; Mortimer and Pressey, 2013). By contrast, encounters with services such as restaurants,

hotels and airlines, tend to be transaction-based. Customers may stay at a hotel in the occasion of a holiday trip and never revisit the same hotel. Trust may hold little relevance in transactional services, but is highly relevant in credence-based services, such as banking and car repair. The selected two service contexts are, therefore, pertinent to the investigation of signaling processes.

*Second*, secondary research reveals that issues related to complaint-handling and service recovery management are topical in banking and car repair services. Since economic recession, the banking sector has undergone turbulent times with customer trust being persistently challenged. As discussed in Part A of this thesis, there is general discontent amongst UK consumers with banking institutions. Consumers find customer service at UK banking institutions unsatisfactory, and believe that banks often exploit their relationships with customers (YouGov-Cambridge, 2013). Mass media coverage also highlights the issue of customer trust in banking institutions. Following accusations of helping wealthy clients to evade taxes, UK customers report particularly negative perceptions about HSBC as a bank and a brand (BBC News, 2015). Similar issues emerge in the car repair sector. Customers rate the service received at the garage of their choice as poor or very poor. Amongst the most recurrent problems, customers mention that the garage failed to rectify or to report safety defects and to provide itemised bills of the work (Mintel, 2014). In the light of the above considerations, the selection of banking and car repair services appears justified. By testing the conceptual framework in the selected service settings, this thesis attempts to enhance the generalizability of research findings.

#### **D1.4.5 Thesis Experimental Design**

This thesis included two empirical studies, as summarised in Table D1.4. One study was conducted in the banking sector, and another study was conducted in the car repair sector. In both studies, five factors were manipulated at two levels. The factors included: Service Guarantee Payout (SGP), Ease of Invocation (EoI), Employee Treatment (ET), Employee Communication (EC) and Firm Reputation for Fairness (FRF). Payout and ease of invocation are commonly included in the same guarantee policy in marketing practice, as evidenced by secondary research (see Appendix D for details). Hence, the above two factors were manipulated and examined concurrently by respondents, such that respondents in the 'high' condition for guarantee terms would see high payout and high EoI. The same process was followed for employee treatment and

communication. Consistent with a between-subjects, one experimental condition was assigned to individual respondents in the sample.

**Table D1.4:** Summary of the thesis experiment

Studies	Factors	Design
Banking	Guarantee Payout	Between-subjects
	Ease of Invocation	
	Employee Treatment	
	Employee Communication	
	Firm Reputation for Fairness	
Car Repair	Guarantee Payout	Between-subjects
	Ease of Invocation	
	Employee Treatment	
	Employee Communication	
	Firm Reputation for Fairness	

The experimental manipulations were designed following a three-stage process. *First*, extensive secondary research was conducted in order to identify the service guarantee policies commonly used in the marketplace. The secondary research enabled the author of this thesis to gain insights on current practices of international companies in relation to designing service guarantee policies (see overview in Appendix D). Moreover, through the critical review of the literature, the author gained an understanding of how extant research has measured firm reputation, employee treatment and communication. *Second*, the methodological decisions undertaken in prior studies were reviewed (i.e. the levels of manipulations). *Third*, hypothetical scenarios were extensively pre-tested with marketing academics as well as with a convenience sample of respondents, who were later excluded from the main study. Pre-testing ensured that respondents perceived the experimental manipulations as desired (see discussion in Chapter E1 of this thesis). Details of the experimental manipulations are provided below.

#### *Guarantee Terms Manipulations*

Service guarantee payout (SGP) and ease of invocation (EoI) were manipulated following existing guarantee policies in the marketplace, and experimental manipulations used in prior research (e.g., Jin and He, 2013). These factors varied at two levels - high and low - expressed as forfeit amounts. In banking, SGP was manipulated as follows: correction of the failure, plus higher than industry standards token compensation of £35 (high), versus correction of the failure plus lower than industry standards token compensation of £10 (low). In car repair, SGP was manipulated as follows: correction of the failed car repair at no charge, plus higher than

industry standards token compensation of £20 (high), versus lower than industry standards token compensation of £10 to be used for the next car repair visit (low).

In banking, EoI was manipulated as follows: a call to Customer Services and no further questions asked to claim the guarantee (high), versus a written complaint form detailing the reason for the claim and waiting time to receive confirmation of the claim validity (low). In car repair, EoI was manipulated as follows: a face-to-face conversation with the workshop manager and no further questions asked to claim the guarantee (high), versus a written complaint form detailing the reason for the claim and waiting time to receive confirmation of the claim validity (low).

### *Employee Behaviour Manipulations*

The manipulations of employee treatment (ET) and employee communication (EC) were consistent with previous research (e.g., Maxham and Netemeyer, 2003; Mattila, 2006). These factors varied at two levels- high and low. In banking, ET was manipulated as follows: the Customer Services employee empathetically addresses the customer and provides an apology for the inconvenience, shows politeness, and makes a genuine effort to speed up the resolution of the problem (high), versus the Customer Services employee appears annoyed by the customer complaint, shows lack of effort in resolving the problem and gives priority to other customers (low). In car repair, ET was manipulated as follows: the workshop manager provides an apology for the inconvenience, shows politeness, and makes a genuine effort to speed up the resolution of the problem (high), versus the employee appears annoyed by the customer complaint, shows lack of effort in resolving the problem and gives priority to other customers (low). In banking, EC was manipulated as follows: the Customer Services employee provides expert explanation for the delay in opening the bank account (high), versus the Customer Services employee struggles to clarify the reason for the delay in opening the bank account (low). In car repair, EC was manipulated as follows: the workshop manager provides expert explanation for the failed car repair (high), versus the workshop manager struggles to clarify the reason for the failed repair (low).

### *Firm Reputation for Fairness Manipulation*

The manipulation of firm reputation for fairness (FRF) was consistent with extant research (e.g., Boulding and Kirmani, 1993; Srivastava and Mitra, 1998; Purohit and Srivastava, 2001). This factor varied at two levels - high and low. In both service contexts, FRF was manipulated as follows: the firm (bank or car repair workshop) is well-established in the marketplace and rated well above industry average in consumer

reports in relation to fairness and transparency in dealing with customers (high), versus the firm (bank or car repair workshop) has been recently established and it has been rated below industry average in consumer reports in relation to fairness and transparency in dealing with customers (low).

### D1.5 TIME HORIZON

Research studies are typically classified as cross-sectional or longitudinal. *Cross-sectional* research entails the collection of data at a single point in time, whereas *longitudinal* research includes the collection of data at multiple times (Malhotra and Birks, 2007). Whilst cross-sectional research provides a snapshot of a particular phenomenon at a point in time, longitudinal research reveals how a certain phenomenon unfolds over time. Both designs entail advantages and disadvantages, as summarised in Table D1.5.

**Table D1.5:** Longitudinal versus cross-sectional research designs

Factors	Cross-sectional design	Longitudinal design
Detecting change	-	+
Large amount of data collection	-	+
Accuracy	-	+
Representative sampling	+	-
Response bias	+	-

Source: Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Prentice Hall, p. 77.

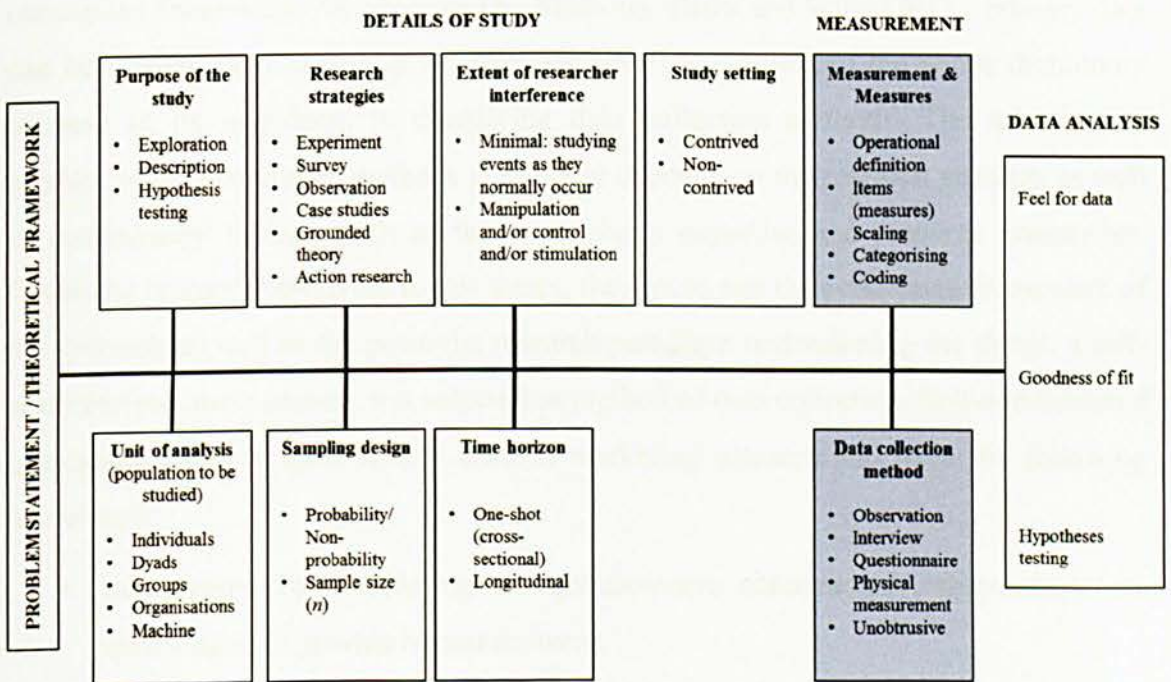
Longitudinal research enables the researcher to detect *change*. For example, longitudinal research allows detecting behavioural change towards marketing efforts in the form of promotions, advertising and alike. Response attrition, due to respondents refusing or being unable to cooperate, represents a main disadvantage of longitudinal research. Response attrition, however, is not a concern for cross-sectional research, given that data are collected at one point in time (Malhotra and Birks, 2007). In the light of the aim of this thesis to investigate customer responses to service failure and recovery encounters depicted in hypothetical scenarios, a cross-sectional design was employed. Customer perceptions and attitudes were, therefore, collected at one point in time. Once the research design, strategy and time horizon of the study are defined, the attention turns to the method of data collection. In Chapter D2, the discussion focuses on the decisions made in relation to data collection method, measures and measurement.

**CHAPTER D2: DATA COLLECTION, MEASURES AND MEASUREMENT**

**D2.1 INTRODUCTION AND OUTLINE OF THE CHAPTER**

In Chapter D2, the discussion focuses on the design of the data collection instrument, the conceptualisation and operationalization of the research constructs (blue shaded cells in Figure D2.1). The outline of Chapter D2 is as follows. First, the method of data collection selected for this thesis is discussed, along with the steps undertaken in designing the data collection instrument. Next, the measures and measurement adopted in the thesis are reviewed.

**Figure D2.1:** Research design framework – Measurement and Data Collection



Source: Sekaran, U. and Bougie, R. (2013) *Research methods for business. A Skill Building Approach*. 5<sup>th</sup> edn. Chichester: John Wiley & Sons, p. 95.



## D2.2 DATA COLLECTION METHOD IN THE THESIS

The literature distinguishes between two types of data - secondary and primary data. Secondary data include existing, publicly available or privately owned data (e.g., data held within organisations). Primary data are collected by the researcher with the aim of answering a research problem (Malhotra and Birks, 2007). In this thesis, both secondary and primary data were used. Secondary data were in the form of journal articles, textbooks and industry reports. Secondary data were collected and analysed as part of the literature review, and led to the identification of the research gaps (see Parts A-C of this thesis).

Primary data were collected in order to answer the research problem and test the conceptual framework. As advocated by Malhotra, Birks and Wills (2013), primary data can be qualitative or quantitative. Scholars have long embraced the above dichotomy because of its usefulness in classifying data collection methods. The selection of qualitative or quantitative methods commonly depends on the research problem as well as contingency factors, such as the researcher's expertise and resource constraints. Given the research objectives in this thesis, the aim to test the conceptual framework of the research as well as the positivist research paradigm underpinning the thesis, a self-administered questionnaire was selected as method of data collection. Self-administered questionnaires have been widely used in marketing research and have the following advantages:

- **anonymity:** by completing the questionnaire anonymously, respondents are encouraged to provide honest answers;
- **convenience:** respondents can complete the questionnaire at their own convenience;
- **low variability:** there is less variability of responses when compared with interviewing techniques;
- **coding:** coding responses is time and cost-effective.

Some limitations of self-completion questionnaires are, however, acknowledged:

- **low flexibility:** self-completion questionnaires are highly structured and are completed by respondents without any help from the researcher;
- **low response rate:** response rate with self-completion questionnaire tends to be low, and it increases the risk of non-response bias.

A number of considerations were made in order to offset the above limitations of self-completion questionnaires. *First*, responses were collected from an online consumer panel. A financial incentive was given to panel members for completing the questionnaire. As pointed out by Oppenheim (1992), response rate tends to increase when respondents are given a financial incentive for completing the questionnaire. *Second*, the questionnaire was extensively pre-tested and pilot-tested, in line with best practice guidelines in conducting business research (Bryman and Bell, 2011). In the pre-tests, potentially ambiguous questions were detected. *Third*, the mode of questionnaire administration has implications for response rate. The selection of the mode of questionnaire administration was, therefore, carefully pondered, as discussed below.

### **D2.3 MODE OF QUESTIONNAIRE ADMINISTRATION**

There are several modes of questionnaire administration, including face-to-face, telephone, mail and Internet. The selection of the mode of questionnaire administration represents an important decision that can influence the design and efficacy of the questionnaire (Saunders and Thornhill, 2008). For instance, considerations have to be made in relation to flexibility, speed, cost and potential for interviewer bias associated with the mode of questionnaire administration. The advantages and disadvantages of existing modes of questionnaire administration were considered in this thesis (see Table D2.1 at the end of this section). After careful consideration, the *Internet* mode of administration was selected for this thesis. The rationale for the above selection is explained below.

In this thesis, hypothetical scenarios were embedded in a self-completion questionnaire. When using scenario-based experiments, respondents are required to carefully read the situation depicted in the scenarios, project themselves and answer related questions. By administering the questionnaire over the phone, the researcher would have to read out the scenarios to respondents. Whilst feasible, the telephone mode of administration was expected to undermine respondents' ability to understand the scenarios, project themselves in the situation depicted in the scenario, and answer related questions. Hence, telephone interviewing was discarded. Moreover, when using hypothetical scenarios, respondents need time to read the scenarios and project themselves. Personal interviewing often puts respondents under pressure to complete the questionnaire quickly. In personal interviewing, the interviewer's characteristics and the mode of interaction can be sources of method bias. Hence, personal interviewing

was discarded. Mail surveys typically entail low flexibility and require a sampling frame including the mail addresses of respondents. Given that such sampling frame was unavailable, mail surveys were discarded.

Internet surveys overcome some of the above-discussed limitations of personal interviewing, mail and telephone surveys. When using Internet surveys, respondents are not allowed to go through the whole questionnaire before starting to answer questions. Respondents' answers are, therefore, not influenced by other questions included in the questionnaire. Online questionnaires overcome the potential method bias associated with item embeddedness, whereby respondents' answers are influenced by the context in which the items are presented (Podsakoff *et al.*, 2003). The self-completion questionnaire in this thesis was built online with the help of the online survey-building software Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)) and distributed to respondents via an automatically generated URL link. Responses were downloaded into SPSS from within Qualtrics. Hence, any risks of transcription errors were removed.

**Table D2.1:** A comparative evaluation of questionnaire administration modes

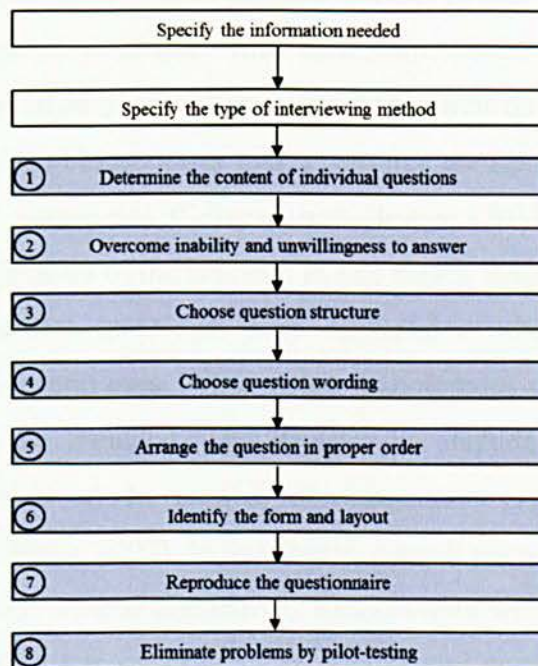
	Telephone CATI	In-office Interviews	Street Interviews	Mail	Email	Internet
<b>Flexibility</b>	Moderate to high	High	High	Low	Low	Moderate to high
<b>Diversity of questions</b>	Low	High	High	Moderate	Moderate	Moderate to high
<b>Physical stimuli</b>	Low	Moderate to high	High	Moderate	Low	Moderate
<b>Sample control</b>	Moderate to high	Potentially high	Moderate to high	Low	Low	Low to moderate
<b>Control of data collection</b>	Moderate	Moderate to high	High	Low	Low	Low
<b>Quantity of data</b>	Low	High	Moderate	Moderate	Moderate	Moderate
<b>Response rate</b>	Moderate	High	High	Low	Low	Low
<b>Anonymity</b>	Moderate	Low	Low	High	High	High
<b>Social desirability</b>	Moderate	Low to moderate	Low	High	High	High
<b>Sensitive information</b>	Low	High	Low	Moderate	Moderate	Moderate
<b>Interviewer bias</b>	Moderate	High	High	None	None	None
<b>Probing</b>	Low	High	Moderate	Low	Low	Low
<b>Build rapport</b>	Moderate	High	Moderate to high	Low	Low	Low
<b>Speed</b>	High	Moderate to high	Moderate	Low	High	High
<b>Cost</b>	Moderate	High	Moderate to high	Low	Low	Low

Source: Adapted from Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Prentice Hall, p. 276.

## D2.4 DESIGN OF THE QUESTIONNAIRE

The design of the self-completion questionnaire followed the questionnaire design process advocated by Malhotra and Birks (2007), as illustrated in Figure D2.2. The first two stages of the process relate to the definition of the data needed and the selection of the mode of survey administration. The above two aspects have been discussed in Section D2.3 and are outside the scope of the discussion in this section. This section focuses on the decisions made in relation to the content, structure, wording and order of the questions, questionnaire layout, and pilot-testing (blue shaded cells in Figure D2.2).

**Figure D2.2:** Questionnaire design process



Source: Adapted from Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> ed. Harlow: Prentice Hall, p. 375.

*Steps 1&2: Determine the content of individual questions and overcome respondents' inability to answer*

Based on Step 1 and 2 of the questionnaire design process, the purpose of questions to be included in the questionnaire was established. Given that a scenario-based experiment was employed, *hypothetical scenarios* were a fundamental part of the questionnaire development (see questionnaire in Appendix E). The scenarios included the manipulations of service guarantee, employee behaviour and firm reputation for fairness (see also discussion in Chapter D1). The scenarios were followed by a battery of questions related to *key research constructs* included in the conceptual framework of

the thesis. *Screening questions* were included at the beginning on the questionnaire. Screening questions established the eligibility of respondents and their ability to answer the questionnaire. For example, respondents were asked questions related to their residency, their usage of banking/car repair services and their experience of service failures. The questionnaire ended with questions capturing respondents' *socio-demographic characteristics*.

### *Step 3: Choose the question structure*

The literature distinguishes between *unstructured* (or open-ended) and *structured* (or closed) questions (Malhotra and Birks, 2007). Whilst unstructured questions require respondents to answer with their own words, structured questions include a pre-specified set of response alternatives. Structured questions can be easily coded and minimise the risk of interviewer bias, given that the researcher does not need to interpret respondents' statements (Sekaran and Bougie, 2013). Given the above considerations and the objectives of the research in this thesis, structured questions were used. Dichotomous (Yes/No) questions were included at the beginning of the questionnaire, for screening purposes. When using dichotomous questions, a 'neutral' response alternative can be included. The decision to include a neutral response alternative typically depends on the number of respondents expected to select this alternative (Malhotra and Birks, 2007). In this thesis, a small proportion of respondents were expected to select the neutral alternative. Respondents were likely to be either users or non-users of banking/car repair services. The neutral response alternative was, therefore, discarded. For all other questions, multi-item scales were used.

### *Step 4: Choose question wording*

Best practice guidelines in conducting business research indicate that ordinary words should be used when phrasing a question (e.g., Malhotra and Birks, 2007). Ordinary words are accessible to respondents with any level of education. Leading questions, wherein respondents are given a clue as to the expected answer, should be avoided. In this thesis, leading and double-barrelled questions were avoided, along with marketing jargon and ambiguous words. For instance, the words 'scenario', 'service failure and recovery' were avoided. Alternatively, reference was made to 'the situation' and 'unsatisfactory experiences'. A panel of marketing academics inspected the

questionnaire several times, and looked for any ambiguous wording or leading questions. Questions were further inspected at the time of conducting the pilot study.

*Steps 5&6: Arrange the questions in proper order, identify the form and layout of the questionnaire*

This thesis adopted the funnel approach to ordering questions, in line with best practice guidelines in conducting business research (e.g., Oppenheim, 1992; Malhotra and Birks, 2007; Sekaran and Bougie, 2013). Consistent with the funnel approach, the questionnaire started with broad questions and progressively introduced specific questions. The funnel approach established the legitimacy of the questionnaire progressively. The questionnaire was divided into three clearly signposted sections, as recommended by Malhotra and Birks (2007). A progress bar was included at the bottom of the questionnaire, so that respondents could keep track of their progress up to completion. The three sections included in the questionnaire are detailed below.

The questionnaire started with an informed consent form informing respondents of: (1) the purpose of the research; (2) their voluntary participation in the research; and (3) the anonymity and confidentiality of their answers. The above procedures were used to reduce method biases, such as social desirability (i.e. the tendency to give answers that present the respondent in a favourable light), leniency (i.e. the tendency to rate high others or the self), and acquiescence (i.e. the tendency to agree with statements regardless of their content). As suggested by Podsakoff *et al.* (2003), respondents are less likely to provide socially desirable answers when informed about the anonymity of responses.

**In the first section** of the questionnaire, respondents answered three screening questions related to whether, (1) they had been living in the UK at the time of the research, (2) they had previously used banking or car repair services, and (3) they had experienced an unsatisfactory service encounter in the past. By asking questions 1 and 2, respondents' eligibility to the study was established. By asking question 3, respondents' past experience of service failures was confirmed. Respondents who had experienced service failures in the past were expected to be able to project themselves easily into the scenarios. Next, respondents were presented with a scenario depicting a customer experience of service failure with a fictitious bank/car repair workshop. A delay in the opening of a new bank account and a failed car repair were chosen as service failures in the service contexts under investigation. As suggested by Smith *et al.*

(1999), hypothetical scenarios should include frequent service failures, which are actionable by managers. Both the delay in opening the bank account and failed car repair are frequent and actionable service failures. Further, secondary research reveals that service guarantees frequently relate to the above service failures.

**In the second section** of the questionnaire, respondents were asked to imagine that they came across the company's service guarantee whilst in the process of lodging a complaint. Upon establishing that they had a legitimate claim under the service guarantee, they proceeded with the claim. At this stage, respondents were presented with the service recovery scenario, which embedded one of the experimental manipulations of SGP, EoI, ET and EC (see Section D1.4.5). After reading the scenario, they answered questions related to perceived justice. **In the third section** of the questionnaire, respondents were asked to imagine that, after experiencing a service failure with the fictitious bank/car repair workshop, they searched for more information about the company. At this stage, respondents were presented with the manipulation of FRF. Next, they were asked to answer a battery of questions related to trust, commitment, loyalty and inferred motive. The questionnaire ended with questions capturing the socio-demographic characteristics of respondents. Questions about demographics were included at the end of the questionnaire, once the legitimacy of the instrument had been established.

#### *Steps 7&8: Reproduce the questionnaire and eliminate problems by pilot-testing*

Pilot testing of the questionnaire is a fundamental stage of the research process. At the pilot stage, problems in the questionnaire can be detected and addressed prior to main data collection (Raynolds, Schegelmich and Diamantopoulos, 1994; Malhotra and Birks, 2007; Sekaran and Bougie, 2013). In this thesis, pilot testing was conducted in two stages. *First*, two pre-tests were carried out with a purposively selected sample of respondents (pre-test one, n=30; pre-test two, n=34). By conducting the pre-tests, the internal validity of the experimental manipulations was established (see details in Chapter E1 of this thesis). Further, the realism and credibility of the hypothetical scenarios was confirmed, in line with recommendations by Perdue and Summers (1986). The pre-tests were conducted online, given that Internet survey was selected as mode of administration. Upon completion of the questionnaire, respondents were asked to provide qualitative feedback on the questionnaire, reporting any difficult or ambiguous questions. *Second*, a pilot study was carried out in order to check for the

validity and reliability of measures. The pilot study was also conducted online (see details in Chapter E2 of this thesis). The questionnaire used for main data collection is provided in Appendix E.

## **D2.5 MEASURES AND MEASUREMENT**

Malhotra and Birks (2007) define measurement as the process of '*assigning numbers or symbols to characteristics of objects according to certain pre-specified rules*' (p. 336). Measurement is important for statistical analysis. An extension to measurement is scaling. By using scales, the researcher attempts to create a continuum upon which the measurement of a construct is located. Multi-item scales were used in this thesis. Issues related to the predictive validity of single-item and multi-item scales have been at the centre of discussion in past research (e.g., Bergkvist and Rossiter, 2007; Diamantopoulos *et al.*, 2012). A number of scholars argue that single-item scales are easier to administer than multi-item scales and lower the risk of obtaining inflated predictions (i.e. common method bias) (Bergkvist and Rossiter, 2007). Other scholars sustain that multi-item scales can overcome carry-over effects associated with single-item measures, whereby respondents carry over the response pattern of one item to the next (Diamantopoulos *et al.*, 2012). Further, PLS-SEM analysis allows for the systematic assessment of the psychometric properties of multi-item scales. Based on the above considerations, multi-item scales were adopted in this thesis.

### **D2.5.1 Operationalization of the Research Constructs**

Social science research often deals with abstract concepts, such as attitudes, perceptions and feelings. Such abstract concepts lack a unique, widely accepted measurement and are, therefore, denoted as 'latent variables'. In order to measure latent variables, researchers define the *measurable* (observable) facets or components of a latent variable, in a process known as 'operationalization' (Sekaran and Bougie, 2013). Measurable components of the latent variable are then included in the questionnaire. The conceptual framework in this thesis includes latent variables (also referred to as 'constructs'). In order to operationalize the research constructs of interest, a two-step process was followed. First, the *conceptual* definition of the constructs of interest was established. As explained by Tull and Hawkins (1976), a conceptual definition centres on the essence of a concept and its characteristics. Second, an *operational* definition



was established. This stage entails the specification of the questions to include in the questionnaire. In this thesis, multi-item scales were borrowed from prior research in order to measure the following constructs: perceived justice, customer trust, commitment, loyalty, firm reputation for fairness and inferred motive.

In the process of borrowing existing measures, attention should be paid towards the properties of the measures. As explained by Sekaran and Bougie (2013), the researcher should ensure that the domain of the borrowed scales matches the purpose of the research. In this respect, Clark and Watson (1995) recommend to adopt scales, which have been used in recent research. Kalafatis, Sarpong and Sharif (2005) recommend checking for the content validity of the scale. Consistent with the above recommendations, the scales borrowed in this thesis were inspected for content validity. In particular, the following three criteria advocated by Engelland, Alford and Taylor (2001) and later by Kalafatis *et al.* (2005) were used:

- The original study and the study borrowing the measures share a common understanding as to the nature of the construct;
- The scale items are relevant to the population of interest;
- The psychometric properties of the measures are inspected (i.e. validity and reliability).

Reverse-coded items were discarded, in line with recommendations by Clark and Watson (1995) and by Podsakoff, MacKenzie and Podsakoff (2012). Although reverse-coded items may reduce the potential effect of response patterns (i.e. respondents give consistent answers to the questions regardless of the question content) by increasing cognitive processing, respondents may find difficult to attend to alternate positive and negative wording (Podsakoff *et al.*, 2012). Further, the author of this thesis and two experienced marketing academics made a subjective assessment of the content validity of the measures, in line with best practice guidelines (Tull and Hawkins, 1976). The marketing academics evaluated, (1) the relevance of the scale items to the service contexts under investigation, and (2) the extent to which the scale items reflected the constructs of interest (i.e. face validity). Details of how the borrowed scales met pre-defined quality criteria are summarised in Table D2.2. The validity and reliability of the borrowed measures were re-assessed at the pilot stage.

Below, the conceptual and operational definitions of the research constructs in this thesis are discussed. A summary of the measures used in this thesis is provided in

Table D2.3 at the end of this section. A detailed list of the items, including manipulation and realism checks, is included in Appendix F.

### *Perceived justice*

Perceived justice represents customer perceptions of the fairness (or justice) of service recovery. As discussed in Part B of this thesis, the concept of perceived justice originates from social psychology. This concept has been long used in organisational and management studies. Drawing on organisational justice literature, four types of justice are distinguished: distributive, procedural, interpersonal and informational. The above four types correspond to four distinct constructs of perceived justice (Colquitt, 2001). The operationalization of the four types of justice is discussed below.

#### *Distributive Justice*

Distributive justice entails customer perceptions of the fairness of recovery compensation. Recovery compensation is fair when it restores the customer-firm relationship at equitable levels, thus the customer obtains gains/benefits that are proportional to or higher than the investments/sacrifices made (Adams, 1965). The items for distributive justice built on measures adopted by Oliver and Swan (1989) first, and Tax *et al.* (1998) and Maxham and Netemeyer (2002) later. The scale met pre-defined quality criteria, thus shared the conceptual definition of distributive justice adopted in this thesis, had been used in prior service recovery research, and showed reliability (Alpha values from .89 to .93).

#### *Procedural Justice*

Procedural justice denotes customer perceptions that the procedures of handling service failures and delivering compensation are fair. Process control and non-control factors, such as consistency, timeliness, neutrality, are identified in organisational justice literature as principles of procedural justice (e.g., Thibaut and Walker, 1978; Leventhal, 1980; Colquitt, 2001). In a recovery context, timeliness is a fundamental principle of procedural justice (Tax *et al.*, 1998; Smith *et al.*, 1999). In this thesis, the procedural justice scale developed by Folger and Konovsky (1989) and later adopted by Maxham and Netemeyer (2002) was borrowed. The scale met pre-defined quality criteria, thus shared the conceptual definition of procedural justice adopted in this thesis, had been used in past service recovery research, and showed reliability (Alpha values from .89 to .93).

### *Interpersonal Justice*

Interpersonal justice entails customer perceptions that the interpersonal treatment received at the recovery stage is fair. Interpersonal treatment is perceived to be fair when the other party in the exchange shows respect, dignity and propriety (Bies and Moag, 1986). In a recovery context, interpersonal justice is obtained when employees show respect, dignity and propriety towards the customer. The items for interpersonal justice built on measures adopted by Folger and Konovsky (1989), and later by Colquitt (2001) and Maxham and Netemeyer (2002). The scale met pre-defined quality criteria, thus shared the conceptual definition of interpersonal justice adopted in this thesis, and showed reliability (Alpha values .79 to .92). Although Colquitt (2001) used this scale with samples of students and employees, the items were deemed relevant for the thesis. Liao (2007) tested the scale in a consumer context. The original scale is 5-point, Likert-type, yet a 7-point Likert type anchored at (1) strongly disagree to (7) strongly agree provided an appropriate alternative for statistical analysis.

### *Informational Justice*

Informational justice entails perceptions that communication during service recovery encounters is fair. Informational justice is obtained that communication is sincere, reasonable and timely (Shapiro *et al.*, 1994; Colquitt, 2001; Mattila, 2006). The items for informational justice built on measures adopted by Shapiro *et al.* (1994) and Colquitt (2001). The scale met pre-defined quality criteria, thus shared the conceptual definition of informational justice adopted in this thesis, and showed reliability (Alpha values .79 to .93). Although Colquitt (2001) used the items with samples of students and employees, the scale was deemed appropriate for the thesis. Liao (2007) tested this scale in a consumer context. The informational justice scale was 5-point, Likert-type, though a 7-point Likert type scale was used for statistical analyses.

### *Customer Trust*

As discussed in Part B of this thesis, trust is a multifaceted construct. The literature on customer trust refers to several types of trust, including cognitive, affective, behavioural and overall trust. Cognitive and affective trust were deemed relevant in this thesis. Consistent with prior marketing research (e.g., Sirdeshmukh *et al.*, 2002), this thesis distinguished between trust referents – firm and employee. The operationalization of cognitive and affective trust in this thesis are discussed below.

### *Cognitive Trust*

Cognitive trust entails the trustor's cognitive evaluation of trustee's trustworthiness (e.g., Sirdeshmukh *et al.*, 2002). In this thesis, cognitive trust denotes customer evaluations of the trustworthiness of the firm and its employees. The items for cognitive trust built on the scale developed Ganesan (1994) and Doney and Cannon (1997). Items relevant to the service contexts under investigation were adopted in this thesis. The scale met pre-defined quality criteria, thus tapped into the conceptual definition of cognitive trust adopted in this thesis, and showed reliability (Alpha values .76 to .94). Although Ganesan (1994) developed the scale in the context of retailer-vendor relationships, the measurement items have been widely tested in consumer contexts, including department store chains (e.g., Ganesan and Hess, 1997), retail clothing, airline, and auto repair services (e.g., San Martín and Camarero, 2005).

### *Affective Trust*

Affective trust entails customer beliefs there is an emotional bond with the firm and/or employee. The items for affective trust built on the scale adopted by Johnson and Grayson (2005) in service research. The scale met pre-defined quality criteria, thus tapped into the conceptual definition of affective trust adopted in this thesis, had been developed and tested in a service context with a population of consumers, and showed reliability (Alpha values .86 to .89).

### *Affective Commitment*

As discussed in Part C of this thesis, the literature identifies affective, behavioural and normative commitment. Affective commitment is examined in this thesis and it entails customer feelings of emotional attachment and identification with the firm and its employees following service failures. The items for affective commitment built on the scale adopted by Allen and Meyer (1990) and Mayer and Schoorman (1992) in organisational contexts, and later by Harrison-Walker (2001) and Fullerton (2005) in consumer research. The scale met pre-defined quality criteria, thus tapped into the conceptual definition of affective commitment adopted in this thesis, and showed reliability (Alpha .95 to .98). Although Allen and Meyer (1990) and Mayer and Schoorman (1992) developed the measure in the context of employee-organization relationships, the scale has been tested in service contexts, including beauty salons and veterinary (Harrison-Walker, 2001), and restaurant services (Aurier and Siadou-Martin, 2007).

### *Behavioural Loyalty*

As discussed in Part C of this thesis, the literature distinguishes between attitudinal and behavioural loyalty. Behavioural loyalty is considered in this thesis. Behavioural intentions to show repatronage and to generate positive word of mouth are used as proxies for behavioural loyalty. The items for behavioural intentions built on the scale adopted by Maxham (2001). The above scale has been tested in the banking sector (e.g., Kalamas *et al.*, 2008) and in service recovery research (e.g., Schoefer and Diamantopoulos, 2008). The scale met pre-defined quality criteria, thus tapped into the conceptual definition of behavioural loyalty adopted in this thesis, had been tested in services marketing research with consumers, and showed reliability ( $\text{Alpha}=0.94$ ).

### *Firm Reputation for Fairness*

Firm reputation for fairness denotes the company's ability to provide valued outcomes (i.e. fairness) to a representative group of stakeholders (i.e. customers). The items for firm reputation for fairness built on one of five factors of customer-based reputation scale developed by Walsh and Beatty (2007). The scale met pre-defined quality criteria, thus tapped into the conceptual definition of firm reputation for fairness adopted in this thesis, had been developed and tested with a population of consumers, and showed reliability ( $\text{CR}=0.86$ ).

### *Inferred Motive*

Inferred motive denotes the extent to which the customer believes that the actions of employees and the firm's decision to offer the guarantee are driven by the employee/firm intentions to fulfil self-interests (i.e. maximize profits, obtain a promotion). The items for inferred motive built on the scales adopted by Kukar-Kinney *et al.* (2007) and Joireman *et al.* (2013). The measure by Kukar-Kinney *et al.* (2007) tapped into customer inferences about *the firm's motives* for offering the guarantee policy, whereas the measure by Joireman *et al.* (2013) tapped into customer inferences about *the motives underlying employees' actions*. The scales met pre-defined quality criteria, thus tapped into the conceptual definition of inferred motive adopted in this thesis, had been tested in marketing research, and showed reliability ( $\text{CR}=0.86$ ).

**Table D2.2:** Quality assessment of borrowed scales

<b>Construct(s)</b>	<b>Borrowed scale(s)</b>	<b>Conceptualisation</b>	<b>Population in original study</b>	<b>Reliability in original study</b>
Distributive Justice	Smith <i>et al.</i> (1999); Maxham and Netemeyer (2002)	Equity	Consumers	$\alpha = 0.90$
Procedural Justice	Smith <i>et al.</i> (1999); Maxham and Netemeyer (2002)	Timeliness, flexibility	Consumers	$\alpha = 0.91$
Interpersonal Justice	Colquitt (2001), Maxham and Netemeyer (2002)	Dignity, politeness, respect	Students, Employees	$\alpha > 0.7$
Informational Justice	Colquitt (2001)	Explanations, perceived sincerity	Students, Employees	$\alpha > 0.7$
Cognitive Trust	Ganesan (1994), Doney and Cannon (1997)	Credibility and benevolence characteristics of the trustee	B2B	$\alpha \geq 0.76$
Affective Trust	Johnson and Grayson (2005)	Emotional bond	Consumers	$\alpha \geq 0.86$
Affective Commitment	Harrison-Walker (2001), Fullerton (2005)	Identification and feelings of emotional attachment	Employees	$\alpha \geq 0.92$
Behavioural Intentions	Maxham (2001)	Repurchase and PWOM intent	Consumers	$\alpha \geq 0.94$
Firm Reputation for Fairness	Walsh and Beatty (2007)	Reputation for treating customers fairly	Consumers	CR = 0.86
Inferred Motive	Kukar-Kinney <i>et al.</i> (2007), Joireman <i>et al.</i> (2013)	Inferences of firm/employee intentions	Consumers	CR = 0.7-0.74

**Note:** CR=Composite Reliability;  $\alpha$ =Cronbach's Alpha

**Table D2.3:** Summary of scales borrowed for the thesis

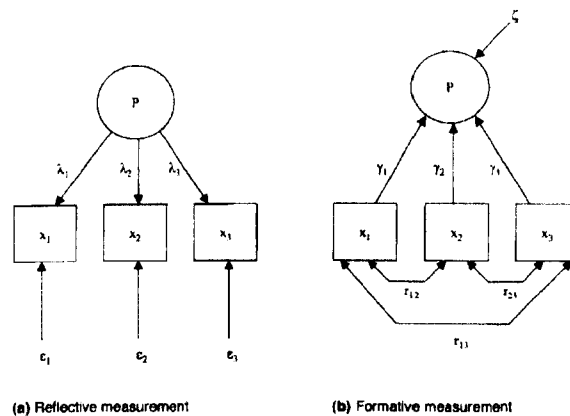
Construct	Conceptual definition and sample item	No. items	Source(s)
Distributive Justice	Customer perception that recovery compensation is equitable. E.g., <i>Although the delay in opening the bank account caused you problems, claiming the guarantee resulted in a positive outcome for you.</i>	5	Smith <i>et al.</i> (1999); Maxham and Netemeyer (2002)
Procedural Justice	Customer perception that recovery procedures are fair. E.g., <i>You feel that Beta Bank responded in a timely fashion to the delay in opening your bank account.</i>	5	Smith <i>et al.</i> (1999); Maxham and Netemeyer (2002)
Interpersonal Justice	Customer perception that the interpersonal treatment received is fair. E.g., <i>You believe the customer service staff at Beta Bank treated you in a polite manner.</i>	4	Colquitt (2001); Maxham and Netemeyer (2002)
Informational Justice	Customer perception that communication at the recovery stage is adequate. E.g., <i>In the process of handling the delay, the customer service staff at Beta Bank gave you a reasonable explanation for the delay.</i>	4	Colquitt (2001)
Firm reputation for fairness	The perceived company's ability to provide valued outcomes to a representative group of stakeholders. E.g., <i>It seems that Beta Bank has a reputation for being concerned about its customers.</i>	4	Walsh and Beatty (2007)
Cognitive Trust in the Firm	Customer assessment of the firm's trustworthiness. E.g., <i>Based on Beta Bank's guarantee policies for handling the delay, you feel Beta Bank is competent about handling delays in opening bank accounts.</i>	5	Ganesan (1994), Doney and Cannon (1997)
Cognitive Trust in the Employee	Customer assessment of employees' trustworthiness. E.g., <i>Based on the way the customer service employee behaved while handling the delay, you feel that employees at Beta Bank have been open in dealing with your problem.</i>	6	Ganesan (1994), Doney and Cannon (1997)
Affective Trust in the Firm	Customer confidence in the firm based on beliefs that go beyond available evidence of trustworthiness. E.g., <i>You could raise concerns about the service you receive and know that Beta Bank will address them.</i>	2	Johnson and Grayson (2005)
Affective Trust in the Employee	Customer confidence in the employee based on beliefs that go beyond available evidence of trustworthiness. E.g., <i>You could raise concerns about the service you receive with employees at Beta Bank and know that they will listen to your concerns.</i>	3	Johnson and Grayson (2005)
Affective Commitment	Customer feelings of emotional attachment and involvement with the firm. E.g., <i>Based on the scenario you read and imagining yourself as a customer of Beta Bank you would feel proud to be a client of this bank.</i>	5	Harrison-Walker (2001), Fullerton (2005)
Behavioural Intentions	Customer intentions to maintain the relationship with the firm. E.g., <i>You would continue using Beta Bank for your banking services.</i>	4	Maxham (2001)
Inferred Motive	Customer belief that employees' and the firm's actions are driven by intentions to fulfil self-interests. E.g., <i>Based on the hypothetical situation you have read, you think that Beta Bank offers its service guarantee in order to serve its own interest of keeping customers</i>	7	Kukar-Kinney <i>et al.</i> (2007); Joireman <i>et al.</i> (2013)

**Note:** All items are 7-point Likert-type, anchored at (1) *strongly disagree* – (7) *strongly agree*. An exception is Behavioural Intentions, which is 7-point scale, anchored at (1) *not at all likely* – (7) *extremely likely*.

## D2.6 Approach to Measurement of the Research Constructs

To conclude Chapter D2, the approach to measurement of the research constructs in this thesis is discussed. Decisions related to the specification of the measurement model for the research constructs, whereby the link between research constructs and their indicators (i.e. observable entities) is elucidated, are critical when dealing with latent variables. As pointed out by Diamantopoulos (1999), issues related to misspecification of the measurement model can have implications for theory testing and development. The literature distinguishes between reflective and formative measurement models (Bagozzi, 1994), as illustrated in Figure D2.3 below.

**Figure D2.3:** Reflective and formative indicators



Source: Diamantopoulos, A. (1999) 'Viewpoint. Export performance measurement: reflective versus formative indicators', *International Marketing Review*, 16(6), p. 446.

In reflective measurement models, the indicators are *manifestations* of the latent variable and 'a change in the latent variable will be reflected in a change in all indicators' (Diamantopoulos, 1999, p. 446). Indicators, therefore, *reflect* changes in the latent variable, and tend to be positively correlated and interchangeable. This means that removing one indicator is unlikely to modify the conceptual definition of the underlying construct. The removal of indicators can, however, have implications for content validity. In formative measurement models, the indicators are *causes* of the latent variable and a change in any of the indicators *causes* a change in the latent variable (Diamantopoulos, 1999). Indicators, therefore, *form* the latent variable. Formative indicators are not interchangeable, are unlikely to correlate and the omission of one indicator may alter the conceptual definition of the construct.

The research constructs in this thesis have a reflective specification, in line with prior research measuring these constructs. The adopted specification is recapitulated below:



- *Perceived justice* entails four widely established dimensions, which are measured individually and conceptualised as reflective latent variables (RLVs);
- *Customer trust* in the firm and in the employee is conceptualised as a higher order RLV including two dimensions, namely cognitive and affective trust;
- *Affective commitment* and *behavioural loyalty* are both conceptualised as a RLVs; and
- *Firm reputation for fairness* and *Inferred Motive* are both conceptualised as a RLVs.

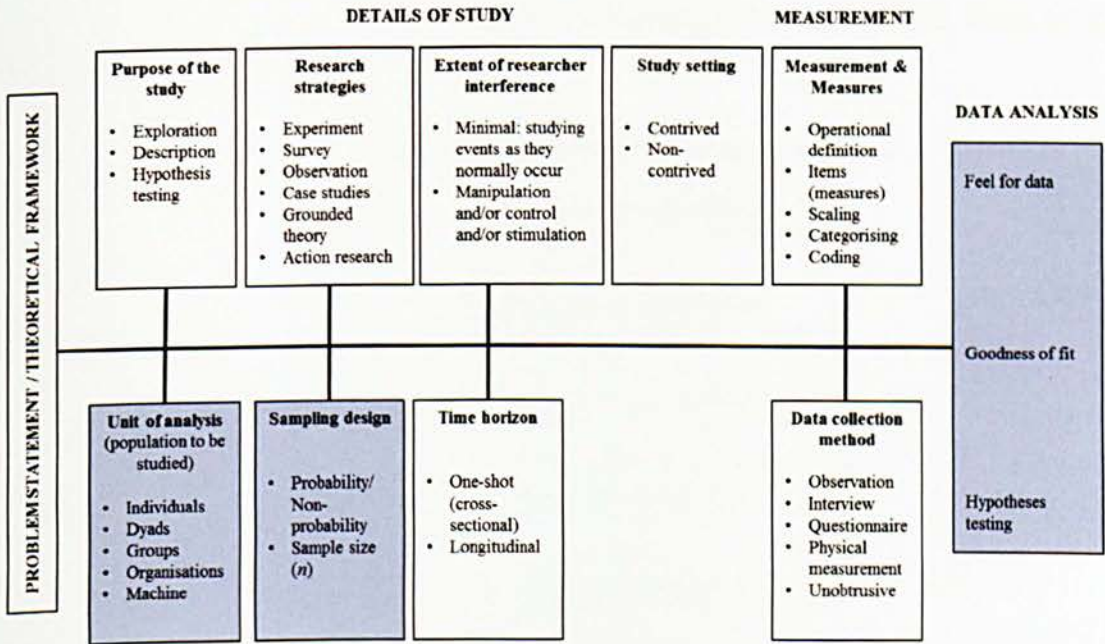
In Chapter D3, the sampling strategy adopted in this thesis is discussed.

**CHAPTER D3: SAMPLING, ERROR MINIMISATION AND ANALYTICAL METHODS**

**D3.1 INTRODUCTION AND OUTLINE OF THE CHAPTER**

Chapter D3 concludes Part D of this thesis. In Chapter D3, the unit of analysis and the sampling design employed in this thesis are discussed (see blue shaded cells in Figure D3.1). Moreover, the considerations made in relation to error minimisation are presented. The outline of Chapter D3 is as follows. First, the unit of analysis for the research is defined. Next, sampling design, strategy and sample size are discussed, along with the steps undertaken in relation to error minimisation. Finally, the analytical methods used in this thesis are presented.

**Figure D3.1: Research design framework – Data Analysis**



Source: Sekaran, U. and Bougie, R. (2013) *Research methods for business. A Skill Building Approach*. 5<sup>th</sup> edn. Chichester: Wiley & Sons, p. 95.

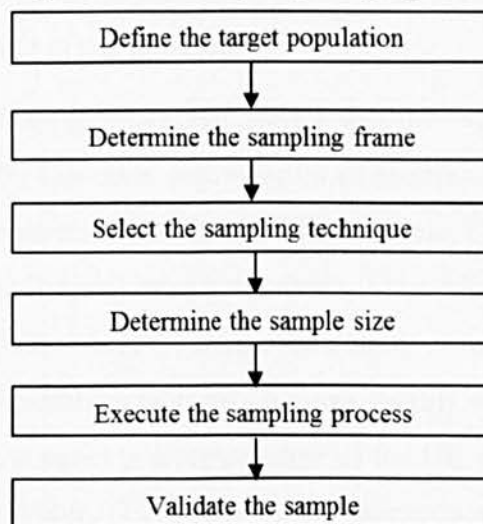
### D3.2 UNIT OF ANALYSIS

The definition of the unit of analysis represents an important step in the process of conducting research. The unit of analysis denotes the level of data aggregation before analysis (Sekaran and Bougie, 2013). Units of analysis can be individuals, dyads, groups, departments, organisations and even nations. The definition of the unit of analysis is based on the research objectives. This thesis focuses on consumer perceptions and attitudes following service recovery. Hence, the unit of analysis is 'individuals'.

### D3.3 SAMPLING DESIGN

In order to define the sampling design for this thesis, the sampling design process advocated by Malhotra and Birks (2007) was followed. The sampling design process comprises six sequential steps, as illustrated in Figure D3.2. Each of the six steps is discussed below.

**Figure D3.2:** Sampling design process



Source: Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Prentice Hall, p. 406.

#### *Step 1: Define the target population*

As suggested by Malhotra and Birks (2007), the target population is commonly defined based on the following four aspects, (1) *element* - the object or person from which information is sought; (2) *sampling unit* - the element containing the information sought and that can be selected for the purpose of the research; (3) *extent* - the geographical location of interest to the research; and (4) *time* - the timeframe within

which the sampling units are relevant for the research. Based on the above four aspects, the target population in this thesis was defined as follows:

**Element:** Consumers

**Sampling unit:** Customers of banking/car repair services, aged over 18, who have experienced at least one unsatisfactory service experience in the past

**Extent:** Living in the UK

**Time:** Between July 2014 and February 2015

*Step 2: Determine the sampling frame*

Given that the target population could not be accessed due to resource constraints, a sample of the population was selected in this thesis. In order to select a sample for the research, a sampling frame needs to be identified. A sampling frame typically includes a list, a telephone directory or a customer database (Malhotra and Birks, 2007). In this thesis, an international market research agency called GMI International was appointed to recruit the sample and to distribute the questionnaire. The sampling frame for this thesis included a list of over 400,000 online panel members living in the UK at the time of the research.

The selection of GMI International agency was the result of an extensive process of due diligence, whereby the costs and benefits of multiple options were considered. GMI International was chosen on the basis of five criteria, (1) their consumer panel is large and contains over 403,000 panel members, (2) GMI International has quality assurance processes in place, based on which the quality of responses is inspected on an ongoing basis and panel members who provide low quality responses are removed, (3) GMI International's online panel is representative of the UK population in terms of age, gender and region (see Table D3.1), (4) GMI International is a UK-based market research agency with a reputation for providing good quality data (i.e. Mintel industry reports are based on data collected by GMI International), and (5) the cost per complete is higher than other UK-based market research agencies (e.g., Research Now, Pure Profile, Sample Answers), but lower than US-based companies such as Qualtrics.

In order to establish the representativeness of GMI International consumer panel, the composition of the panel was checked against the characteristics of the general UK population. In order to do so, data from the Office for National Statistics (2013) was used. As illustrated in Table D3.1, panel members were similar to the UK population in terms of gender, age and region. It is, however, acknowledged that GMI's

panel may be incomplete, given that non-internet users are excluded. This might explain the discrepancy between the GMI panel and the UK population with respect to the percentage of respondents aged above 55. Hence, any generalization of findings should be made with caution.

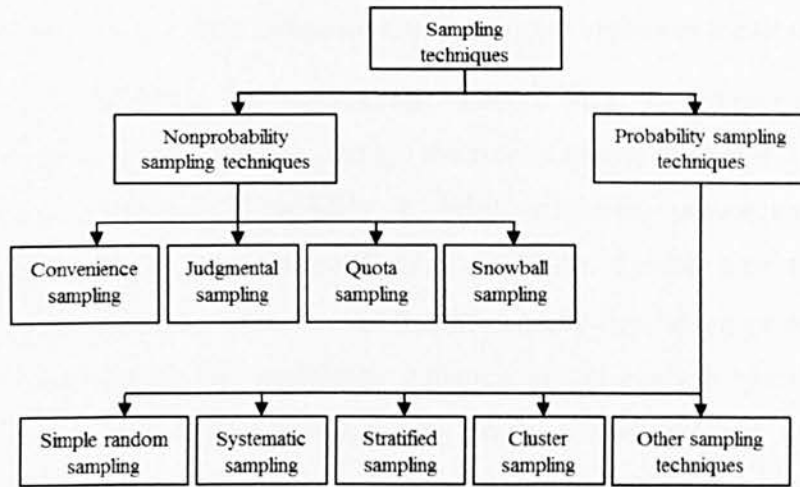
**Table D3.1** The demographic characteristics of GMI International panel

Demographic variables	Total respondents (%)	UK population (%)
Gender		
Male	38	49
Female	62	51
Age		
18-24	24	15
25-34	27	16
35-44	19	17
45-54	15	17
55+	15	35
Region		
East & South East	23	23
East Midlands	7	7
London	13	13
North East	4	4
North West	11	12
South West	8.5	8
West Midlands	9	9
Yorkshire & The Humber	8	8
Northern Ireland	3	3
Scotland	8.5	8
Wales	5	5

Source: Office for National Statistics, UK, 2013 and GMI International, 2014

### *Step 3: Select the sampling technique*

The literature distinguishes between *probability* and *nonprobability* sampling designs (Sekaran and Bougie, 2013). When generalizability is a concern, the use of probability sampling is recommended (Sekaran and Bougie, 2013). Probability sampling allows for generalizability of findings to the population of interest. Nonprobability sampling, on the other hand, poses a limit to the generalizability of findings to the target population. Nonprobability sampling is, nonetheless, cost and time effective, and it is preferred when resources are scarce. Several sampling techniques are associated with probability and nonprobability sampling designs, as illustrated in Figure D3.3. In this section, the attention turns to the sampling design selected in this thesis.

**Figure D3.3** A classification of sampling techniques

Source: Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Prentice Hall, p. 411.

This thesis employed a probability sampling technique, namely random sampling. The selection of the sampling technique was made in the light of the research objectives and the aim to test the conceptual framework of the research. Random sampling entails the probabilistic selection of sampling units from the sampling frame and it allows for generalizability of findings, which is a main concern of this thesis. A random sample of respondents was selected from GMI online panel. The sample reflected the distribution of gender, age and region of the general UK population (see details in Appendix G). Respondents were further screened at the time of completing the questionnaire. Based on the screening questions (see Section D2.4), respondents who were familiar with banking/car repair services were retained in the sample.

#### *Step 4: Determine the sample size*

As suggested by Malhotra and Birks (2007), a number of considerations need to be made when establishing the sample size. These include, for instance, the nature of the research, the number of research constructs, the analytical method, completion rates, resource constraints and practice in prior research. For instance, large samples are needed when conducting causal research and the number of constructs of interest is large. Completion rates was a minor concern in this thesis given that panel members were offered a financial incentive for completing the questionnaire. Incidence rate – the rate of eligible respondents – did not represent a concern. The majority of respondents

were users of banking services. A lower percentage of respondents were expected to have used car repair services, thus incidence rate was lower in the car repair context.

In order to determine the appropriate sample size, two approaches were followed, (1) statistical power analysis, and (2) the rule of thumb in partial least squares structural equation modeling (PLS-SEM). A priori statistical power analysis was conducted by using GPower 3.1 software (Faul *et al.*, 2009). *A priori* power analysis is appropriate when the researcher aims to establish the sample size, as suggested by Mayr *et al.* (2007). The parameters for conducting statistical power analysis were set at 95% level of confidence, 0.80 statistical power (the norm in business and management research, Field, 2009), 0.25 effect size in line with Cohen (1988) and one degree of freedom, given that experimental conditions were set at two levels (high vs. low). Results showed that a sample size of 129 cases was needed in order to achieve statistical power of 0.80.

Further, based on the 10 times rule of thumb in PLS-SEM, the sample size should be equal to or larger than 10 times the largest number of structural paths directed at a particular construct in the structural model (Chin, 1998; Hair, Ringle and Sarstedt, 2011). In the conceptual framework in this thesis, the largest number of structural paths directed at a construct (i.e. trust in the firm) was three. It follows that a sample size of 30 cases per condition was acceptable for conducting PLS-SEM (3x10). The focus of the analysis in this thesis was on the predictive validity of the overall model. Nonetheless, the sample size accounted for the experimental conditions given that elicitation tests were run prior to the main study (see Chapters E2 and E3). As discussed in Section D1.4.5, both payout and EoI were manipulated in the guarantee, such that respondents in the 'high' condition for guarantee terms saw a scenario including high payout and high EoI. The same process was followed for the manipulation of employee behaviour. For reputation for fairness, respondents were either exposed to 'high' or 'low' reputation for fairness. Overall, eight experimental conditions were attained. Hence, a sample size of 240 cases was acceptable (30x8) for each service setting. Given that this thesis employed PLS-SEM analytical technique and Chin's (1998) rule of thumb appears to provide a more conservative estimate of sample size than power analysis, the requisite sample size for the main study was set at n=240 per service context. Overall, 658 valid responses were collected from both service contexts (further details follow in Chapter E3).

*Steps 5&6: Execute the sampling process and validate the sample*

For sample validation, respondents were screened with respect to, (1) their residency, (2) their past usage of banking/car repair services, and (3) their experience of service failures. Respondents were removed if they had lived in the UK for less than one year and they had never used banking/car repair services. Moreover, responses were checked for validity. Respondents were removed if they had completed the questionnaire in less than five minutes (average time for completion) and paid little attention in answering the questions (detected by means of a 'trap' question). The socio-demographic characteristics of respondents in the main study are summarised in Table D3.3.

**Table D3.3** The socio-demographic characteristics of the sample

<i>Banking</i>		<i>Car Repair</i>	
Demographic variables	Total respondents (%)	Demographic variables	Total respondents (%)
<i>Gender</i>		<i>Gender</i>	
Male	46	Male	45
Female	54	Female	55
<i>Age</i>		<i>Age</i>	
18-24	7	18-24	4
25-34	10	25-34	10
35-44	17	35-44	20
45-54	19	45-54	20
55-64	26	55-64	24
65 or over	21	65 or over	22
<i>Education</i>		<i>Education</i>	
GSCE / GCE	36	GSCE / GCE	35
Diploma	17	Diploma	15
Undergraduate degree	25	Undergraduate degree	26
Postgraduate degree	14	Postgraduate degree	12
Other	8	Other	12
<i>Profession</i>		<i>Profession</i>	
Student	5	Student	2
Self-employed	8	Self-employed	9
Employed	47	Employed	46
Other	40	Other	43
<i>Income</i>		<i>Income</i>	
Up to £19,000	50	Up to £19,000	42
£20,000 - £29,000	27	£20,000 - £29,000	27
£30,000 - £39,000	12	£30,000 - £39,000	13
£40,000 - £49,000	6	£40,000 - £49,000	10
£50,000 or more	5	£50,000 or more	8

A similar proportion of male and female respondents answered the questionnaires across banking and car repair services. Similar to the distribution of the UK general population, female respondents were a larger group than male respondents. The distribution of respondents across the age groups also closely reflected the



distribution in the UK population. In banking and car repair, a similar proportion of respondents had GSCE / GCE (banking, 36 per cent; car repair, 35 per cent), a diploma (banking, 17 per cent; car repair, 15 per cent) or a university degree (banking, 39 per cent; car repair, 38 per cent). Half of the respondents were employed or self-employed, and earned between £20k and £50k. Only a minority (five to eight per cent) reported an income larger than £50k.

Respondents' usage of banking/car repair services and prior experience of service failures are summarised in Table D3.4. In banking, the majority of respondents had been using a UK bank for five years or longer (87 per cent). In car repair, the majority of respondents had used car repair services up to three times a year (88 per cent), but a few had used repair services more than four times a year (2 per cent). In both contexts, about one third of respondents had experienced at least one highly dissatisfactory service failure in the past.

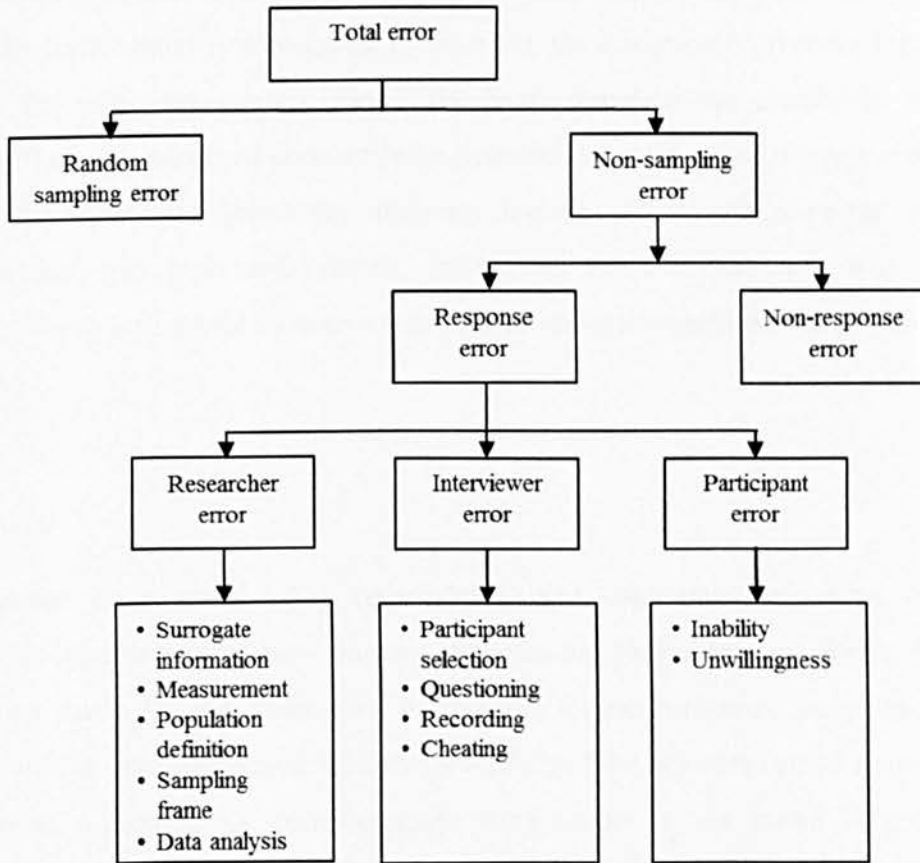
**Table D3.4** Additional characteristics of the sample

<i>Banking</i>		<i>Car Repair</i>	
<b>Additional characteristics</b>	<b>Total respondents (%)</b>	<b>Additional characteristics</b>	<b>Total respondents (%)</b>
<i>Past usage</i>		<i>Past usage</i>	
Less than 1 year	3	Yes	90
1-5 years	10	No	10
5 years or longer	87		
<i>Past service failures</i>		<i>Frequency of usage</i>	
Yes	37	Once a year	64
No	63	2-3 times a year	24
		4-5 times a year	1
		6 times a year or more	1
<i>Level of dissatisfaction</i>		<i>Past service failures</i>	
0 – slightly unsatisfactory	12	Yes	31
10 – highly unsatisfactory	25	No	59
		<i>Level of dissatisfaction</i>	
		0 – slightly unsatisfactory	14
		10 – highly unsatisfactory	17

### D3.4 SOURCES OF ERROR

Several potential sources of error can affect the design of a research project. This section focuses on discussing frequent sources of error and the considerations made in this thesis in order to minimise error. The section is structured following the classification of potential sources of error advocated by Malhotra and Birks (2007), and illustrated in Figure D3.5.

**Figure D3.5:** Potential sources of error



Source: Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Prentice Hall, p. 83.

Malhotra and Birks (2007) distinguish between *random sampling* and *non-sampling error*. Random sampling error refers to variation in estimates that is incurred when the selected sample does not closely match the characteristics of the target population. Consistent with suggestions by Malhotra and Birks (2007), this thesis attempted to minimise sampling error by adopting a probability sampling technique and by selecting a large sample (see discussion in Section D3.3). Research design decisions related to problem definition, questionnaire design, measurement and analysis can, on the other hand, cause non-sampling error. Non-sampling error comprises non-response

and response error. The discussion below explains how this thesis attempted to overcome non-response and response errors.

### *Non-response Error*

Non-response error arises when respondents either do not respond to the questionnaire or leave it incomplete. Non-response error tends to increase when response rate is low (Malhotra and Birks, 2007). Three initiatives were taken in this thesis in order to minimise non-response error. *First*, the Kingston University logo was included in the informed consent form. The logo signalled the credibility of the research. Further, the informed consent form detailed the purpose of the research and emphasised the value of respondents' answers. *Second*, the 'forced response' option within Qualtrics was activated. Hence, answering all the questions was made compulsory. *Third*, a financial incentive was offered to respondents who completed the questionnaire.

### *Response Error*

Response error arises when respondents give inaccurate responses, or the researcher mis-records and/or mis-analyzes the answers (Malhotra and Birks, 2007). The decisions made by the researcher in relation to measurement, sampling, data analysis, as well as questionnaire design and recording of the answers can be a source of response error. A number of considerations were made in this thesis in order to minimise response error, as discussed below:

- *Surrogate information error* relate to the variation between the information sought and the information obtained. In order to minimise this error, an extensive literature review was conducted. The literature review provided conceptual clarity on the research constructs of interest. Furthermore, extensive pretesting ensured that respondents interpreted the scenarios as desired (see also Chapter E1 in this thesis).
- *Measurement error* can be the cause of variation between information sought and information obtained. In order to overcome measurement error, a thorough review of existing measures for the constructs of interest was conducted. Moreover, the measures were selected based on quality criteria (see Section D2.5.1). Once selected, the wording of the measures was inspected by expert marketing

academics. Common method variance (CMV), namely '*the variance that is attributable to the measurement method rather than to the constructs the measures represent*', can be a source of measurement error (Podsakoff *et al.*, 2003, p. 879). In order to control for CMV, Podsakoff *et al.* (2003) recommend the use of procedural and statistical remedies. This thesis used procedural remedies, as discussed in Section D3.4 of this chapter. As statistical remedy, the Harman's single-factor test and the unmeasured latent method factor test were conducted in order to assess whether CMV was an issue for concern (see Chapter E3 of this thesis).

- *Population definition error* relates to the variation between the population of interest and the sample selected for the study (Malhotra and Birks, 2007). The population of interest in this thesis was carefully identified based on the research objectives. Population definition error was not a reason for concern.
- *Sampling frame error* relates to the variation between the population of interest and the sampling frame adopted by the researcher (Malhotra and Birks, 2007). This thesis confirmed that the characteristics of GMI International's online panel matched with those of the general UK population (see Appendix G). Therefore, sampling frame error was not a reason for concern.
- *Data analysis error* arises when the analytical technique used for the research is inadequate. Partial Least Squares approach to Structural Equation Modeling (PLS-SEM) analysis was employed in this thesis. The selection of PLS-SEM was made on the basis of two considerations: (1) the complexity of the conceptual framework of the research, and (2) the focus of this thesis on prediction. The analytical technique used in this thesis is discussed in detail in Section D3.5.
- *Inability and unwillingness error* results from respondents' inability to answer questions because of fatigue, boredom and ambiguous wording (Malhotra and Birks, 2007). In order to reduce this error, simple and familiar words were used throughout the questionnaire. Jargon was avoided. As pointed out by Podsakoff *et al.* (2003), questions regarding age, gender, ethnicity may raise suspicion about the researcher's intent and lead respondents to experience a negative mood state. In order to prevent the elicitation of negative mood, questions regarding the respondents' age, gender and income were included at the end of the questionnaire.

- *Questioning error* is incurred when probing or ambiguous questions are used. This type of error was prevented by conducting a pre-test of the questionnaire and inspecting for ambiguous and double-barrelled questions (see Section D2.4).
- *Recording error* can be incurred at the time of recording and transcribing respondents' answers. The use of Qualtrics software minimised this error. Qualtrics saves the answers in .sav and .csv formats, which are compatible with SPSS and SmartPLS software. Moreover, a codebook including the labels and scores for the variables of interest was created prior to data collection. The codebook facilitated the coding of answers. Coding error was, therefore, not a reason for concern.

### D3.5 ANALYTICAL TECHNIQUES

Structural equation modeling (SEM) analytical technique was employed in this thesis. This technique has been widely used in marketing and consumer research. Among its advantages, SEM enables the simultaneous analysis of measurement (i.e. constructs and indicators) and structural models (i.e. hypothesised relationships between constructs) (Hair *et al.*, 2014).

#### D3.5.1 Analysis of Main Effects

The literature distinguishes two main approaches to SEM analysis - covariance-based (CB-SEM) and variance-based SEM. CB-SEM is typically conducted using software such as AMOS and LISREL. Variance-based SEM is typically associated with the partial least square approach to SEM (PLS-SEM) and SmartPLS statistical software (Chin, 1998; Hair *et al.*, 2011). Some of the distinctive characteristics of CB-SEM and PLS-SEM are briefly discussed below:

- *Purpose*: CB-SEM focuses on theory testing by means of estimating how close the estimates of a *theoretical* covariance matrix are to the *empirical* covariance matrix (Reinartz, Haenlein and Henseler, 2009). On the other hand, PLS-SEM is intended for causal-predictive analysis in complex models, when there is relatively less theoretical knowledge (Jöreskog and Wold, 1982).
- *Assumptions of normality*: PLS-SEM is a more robust technique than CB-SEM when assumptions of normality are violated (Hair *et al.*, 2012).

- *Conceptualisation of constructs*: CB-SEM assumes that latent variables are reflective in nature, whereas PLS-SEM can incorporate both reflective and formative specifications.
- *Minimum sample size requirements*: CB-SEM typically requires a minimum of 200 observations (Reinartz *et al.*, 2009). PLS-SEM, by contrast, is robust even with samples including as little as 50 observations (Haenlein and Kaplan, 2004).

Based on the above discussion, PLS-SEM entails greater flexibility than CB-SEM with respect to the specification of constructs, the assumptions of normality and sample size requirements. Unlike CB-SEM that assumes equal weights for all indicators, PLS-SEM allows each indicator to vary in its contribution to the latent variable. Considering the advantages of PLS-SEM and the focus of this thesis on prediction, PLS-SEM analytical technique was selected.

Following best practice guidelines on how to conduct PLS-SEM (e.g., Chin, 1998; Hair *et al.*, 2014), the analysis was performed in two stages. First, the measurement model was inspected. The loadings for the single indicators and their statistical significance were inspected. The internal consistency of the scale was assessed by means of Cronbach's alpha and composite reliability estimates (Henseler, Ringle and Sinkovics, 2009). Convergent validity of the scale items was established by inspecting the Average Variance Extracted (AVE) (Chin, 1998). The discriminant validity among the constructs included in the conceptual framework was assessed by employing the Fornell-Larcker criterion (1981) and the heterotrait-monotrait ratio of correlations approach (Henseler, Ringle and Sarstedt, 2015). Second, the structural model was assessed. The R-square, Q-square, f-square values were inspected, along with the size and significance of the path coefficients. A detailed discussion of the analysis follows in Part E of this thesis.

### **D3.5.2 Analysis of Moderating Effects**

The literature refers to two main approaches to testing moderation in PLS-SEM. The first approach is the *product indicator approach*. This approach allows testing of latent moderating variables (Chin *et al.*, 2003; Henseler and Chin, 2010). Based on this approach, a product term is created by using the indicators of the latent *independent* and *moderator* variables. The product term serves as indicator of a new latent variable in the model, namely the interaction term. The product indicator approach is recommended when using reflective measurement models. For formative measurement models, a two-

stage approach is preferred (Henseler and Chin, 2010). This thesis does not include formative specifications. Hence, the two-stage approach was discarded. Further, Henseler and Chin (2010) recommend the use of the product indicator approach when the objective of the analysis is to find an estimate for the true parameter of an interaction effect and to describe the hypothesised relationships.

The second approach to testing moderation in PLS-SEM is the *multi-group analysis* (MGA). MGA allows testing for moderation of categorical variables or continuous variables converted into two or more artificial groups. Parametric and non-parametric procedures to conducting MGA exist (Sarstedt, Henseler and Ringle, 2011). Chin (2000) notes that both procedures are contended to work effectively when using large samples. The same author suggests that MGA should, however, be avoided when the moderating variable is continuous, as MGA may complicate power detection. In this thesis, both moderating variables – firm reputation for fairness and inferred motive - are quantitative (i.e. measured on a 7-point scale), are expected to change the *strength* of the relationship between perceived justice and customer post-recovery trust, and have a reflective measurement model. Given the above, the product indicator approach to testing for moderation was deemed appropriate.

Part D of this thesis discussed the methodological decisions made in order to design the research conducted in this thesis. Following on Part D, Part E includes a discussion of the analysis and results from two pre-tests, a pilot study and the main study.

# **PART E**

## **Data Analysis and Results**



## **PART E: DATA ANALYSIS AND RESULTS**

### *OUTLINE OF PART E*

Once the research instrument has been developed and empirical data have been collected, the next step inevitably entails the analysis of data. Data analysis represents a pivotal step in the research process, whereby the research hypotheses and the conceptual framework as a whole are tested. Results from the data analysis reveal whether the research hypotheses are empirically confirmed or not. In order to ensure that data relevant to answering the research objectives are collected, the data collection instrument is typically pre-tested, the psychometric properties of the measures are established, and a preliminary testing of the conceptual framework is carried out. The above steps represent best practice guidelines in conducting business research.

Consistent with the above guidelines, the research in this thesis entails four studies - two pre-tests, a pilot study and a main study. Part E presents the analysis of data collected across all four studies, and discusses related findings. The outline of Part E is as follows:

- **Chapter E1** presents the analysis and results from two pre-tests. The pre-tests aim at establishing the realism of the hypothetical scenarios embedded in the questionnaire, the ease of understanding of the questions, and the internal validity of the experimental manipulations.
- **Chapter E2** discusses the analysis and results from the pilot study. The pilot test aims at confirming the psychometric properties of the measures employed in the thesis.
- **Chapter E3** presents the analysis and results from the main study. The main study aims at testing the conceptual framework of the research, including main and moderating effects.

**CHAPTER E1: ANALYSIS AND RESULTS FROM PRE-TESTS****E1.1 INTRODUCTION**

As discussed in Part D of this thesis, there are diffused concerns about the ecological and external validity of experiments. In order to address concerns about ecological validity, Perdue and Summers (1986) recommend the use of extensive pre-testing. Following the above recommendations, two pre-tests and one pilot study were conducted in this thesis. The analysis and results of two pre-tests are discussed in sequence in the sections below<sup>3</sup>.

**E1.2 ANALYSIS AND RESULTS FROM PRE-TEST ONE**

Pre-test One served two purposes, (1) to establish the realism of the service failure and recovery scenarios included in the questionnaire, thus ecological validity, and (2) to confirm the efficacy of the experimental manipulations. This pre-test was conducted with a convenience sample of UK consumers (banking,  $n=16$ ; car repair,  $n=14$ ). The validity of responses was checked and one response was removed from the car repair dataset. The removed response related to a respondent who had paid little attention in completing the questionnaire. Further, responses were checked against pre-defined screening criteria. Finally, 13 responses were deemed valid in car repair. Below, the results from realism and manipulation checks are discussed.

*Realism and manipulation checks*

The realism checks for this thesis required respondents to indicate the extent to which, (1) they thought the situation depicted in the scenarios could happen in real life, and (2) they could imagine themselves in the role of the customer. A 3-item, 7-point Likert type scale by Sparks and McColl-Kennedy (2001) was used as realism check measure (see also Appendix F). For analysis, One Sample T-tests were run in SPSS 22. In banking, respondents perceived the service failure and recovery scenarios as realistic, with mean ratings significantly greater than the scale mid-point of 4 (failure  $M=5.47$ ,  $SD=1.13$ ; recovery  $M=4.91$ ,  $SD=1.26$ ). The above result held in car repair (failure

---

<sup>3</sup> A paper based on this research was published in the 2014 AMA SERVSIG conference proceedings (won the Best Paper Award) and it is forthcoming in the conference special issue at the *Journal of Service Management* (invited for publication). Crisafulli, B. and Singh, J. (2015) 'Service guarantee as a recovery strategy: The impact of guarantee terms on perceived justice and firm motives', *Journal of Service Management*. (forthcoming)

$M=5.54$ ,  $SD=0.92$ ; recovery  $M=5.54$ ,  $SD=0.59$ ). The ecological validity of findings was, therefore, established.

Next, manipulation checks were conducted. Manipulation checks are an important step towards establishing whether the experimental manipulations function as desired (e.g., Lynch, 1982; Perdue and Summers, 1986; Khan, 2011). The manipulation checks for this thesis included an assessment of, the generosity of guarantee payout, the complexity of the guarantee invocation process, the extent to which the employee shows concern and communicates the reason for the service failure, and the firm treats customers fairly (see also Appendix F). The manipulation check measures were 5-point, Likert type and borrowed from Sparks and McColl-Kennedy (2001), Purohit and Srivastava (2001), Wirtz and Kum (2004), and Mattila (2006). Independent Samples T-tests were used as analytical technique. The results from T-tests are summarised in Table E1.1 below.

**Table E1.1** Manipulation check results – Pre-test One

	<b>Banking</b>				<i>t</i>	Sig. (one-tailed)
	High		Low			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Guarantee Payout	3.63	1.06	1.38	0.52	5.39	.000
Ease of Invocation	4.00	0.76	1.63	0.52	7.33	.000
Employee Concern	3.50	0.93	1.50	0.76	4.73	.000
Employee Communication	3.00	0.93	2.25	1.28	1.34	.201
Firm Reputation*	5.13	2.36	1.88	0.84	3.68	.005
	<b>Car repair</b>				<i>t</i>	Sig. (one-tailed)
	High		Low			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Guarantee Payout	3.83	1.17	1.14	0.38	5.40	.002
Ease of Invocation	3.83	0.75	1.71	0.76	5.05	.000
Employee Concern	2.50	1.38	1.00	0.00	2.67	.045
Employee Communication	2.83	1.47	1.29	0.49	2.46	.049
Firm Reputation*	5.83	1.47	2.00	1.41	4.78	.001

\*Please note that Firm Reputation is used as abbreviation for Firm Reputation for Fairness

In banking, the results from the T-tests confirmed that all experimental manipulations were in the desired direction, with the exception of Employee Communication ( $p=.201$ ). For payout, EoI, employee treatment and firm reputation for fairness, customers in the high condition displayed significantly higher ratings on the manipulation check measures than customers in the low condition. The ratings in the high condition were significantly higher than the scale mid-point of 3 (5-point scale). However, the mean ratings of customers in the high employee communication condition

were not significantly higher than the mean ratings of customers in the low employee communication condition. Based on the above finding, the manipulation of employee communication was not in the desired direction and needed to be revised.

In car repair, across all factors, customers in the high condition displayed significantly higher ratings on the manipulation check measure than customers in the low condition ( $p < .05$ ). Although the mean ratings in high and low employee treatment and communication conditions were significantly different, the ratings in the high condition were still below the scale mid-point of 3. Therefore, the manipulations for employee treatment and communication needed to be revised. Based on the above premises, Pre-test Two was carried out. The analysis and results from Pre-test Two are discussed in turn.

### E1.3 ANALYSIS AND RESULTS FROM PRE-TEST TWO

As discussed in Section E1.2, Pre-test One confirmed the realism of the scenarios, across both service contexts. Notwithstanding, the experimental manipulations of employee concern (also referred to as ‘employee treatment’) and communication needed revisions. In banking, the mean ratings for high and low employee communication were not significantly different. In car repair, the mean ratings for high employee treatment and communication were significantly higher than the mean ratings for low employee concern and communication, yet below the scale mid-point of 3. Hence, the above experimental manipulations were revised in such a way that the distinction between high and low conditions would be made clear.

The scenarios were amended based on oral feedback provided by the participants in Pre-test One. For instance, participants interpreted employee concern and communication to be insincere. In the high employee concern and communication conditions, the employee was perceived to be ‘doing the customer a favour’. Once the scenarios had been amended, Pre-test Two was run. The purpose of Pre-test Two was to confirm that the scenarios continued to be perceived as realistic and the revised manipulations functioned as desired. Altogether, 43 responses were collected from a convenience sample of UK consumers, who had been living in the UK for longer than one year and had used banking or car repair services in the past. 34 out of 43 responses were deemed valid (banking,  $n=14$ ; car repair,  $n=20$ ). Realism and manipulation checks were, therefore, conducted with a sample of 34 responses.

#### *Realism and manipulation checks*

Realism checks were run by using One Sample T-tests in SPSS 22. Respondents perceived both service failure and recovery scenarios as realistic, in both banking (failure  $M=5.36$ ,  $SD=1.51$ ; recovery  $M=5.36$ ,  $SD=1.39$ ) and car repair contexts (failure  $M=5.85$ ,  $SD=0.83$ ; recovery  $M=5.30$ ,  $SD=1.17$ ). In both contexts, mean ratings for realism were significantly greater than the scale mid-point of 4 ( $p<.05$ ). Hence, the ecological validity of findings was confirmed.

Next, manipulation checks were conducted. Independent Samples T-tests were run in SPSS 22. As illustrated in Table E1.2 below, all the manipulations were in the desired direction. The reader is reminded that Pre-test One had confirmed that the manipulation of firm reputation for fairness was in the desired direction. Therefore, no further testing was conducted in Pre-test Two. For payout, EoI, employee concern and

employee communication, customers in the high condition displayed significantly higher mean ratings on the relevant manipulation check measure than customers in the low condition ( $p < .05$ ). The above results held across banking and car repair. Therefore, Pre-test Two established the ecological validity of findings and the efficacy of the experimental manipulations. Next, the pilot study was conducted, as discussed in Chapter E2.

**Table E1.2** Manipulation check results – Pre-test Two

	<b>Banking</b>				<i>t</i>	Sig. (one-tailed)
	High		Low			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Guarantee Payout	3.14	1.35	1.86	1.07	1.98	.035
Ease of Invocation	3.14	1.46	1.00	0.00	3.87	.004
Employee Concern	3.86	0.69	1.14	0.38	9.13	.000
Employee Communication	3.14	0.90	1.14	0.38	5.42	.000
	<b>Car repair</b>				<i>t</i>	Sig. (one-tailed)
	High		Low			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Guarantee Payout	4.11	0.78	1.45	0.93	6.80	.000
Ease of Invocation	3.78	0.97	2.27	1.91	3.05	.003
Employee Concern	3.98	0.78	1.27	0.47	9.29	.000
Employee Communication	3.11	0.78	1.27	0.65	5.76	.000

**CHAPTER E2: ANALYSIS AND RESULTS FROM PILOT STUDY****E2.1 PURPOSE OF THE PILOT STUDY**

The purpose of the pilot study was to confirm the psychometric properties of the measures employed in this thesis and to conduct a preliminary inspection of the structural paths in the conceptual framework. The pilot study was carried out with a sample drawn from GMI International online panel. Overall, 470 completes were collected. The validity of completes was checked. Based on the above checks, 145 responses were considered invalid and thus removed. As discussed in Part D, the number of consumers who had used car repair services was expected to be lower than the number of customers who had used banking services. Hence, more responses were removed from the car repair dataset when compared with the banking dataset. Finally, 165 and 160 responses were retained in banking and car repair respectively, and were used for further analysis.

**E2.2 MANIPULATION AND CONFOUND CHECKS**

Manipulation checks were conducted as part of the pre-tests (see Chapter E1) and pilot study. In the pilot study, a large dataset was used, thus manipulation checks similar to those in Chapter E1 were conducted. Independent Samples T-tests were run in SPSS 22. All the manipulations were in the desired direction, across both service contexts ( $p < .01$ ). Moreover, confound checks were run in order to assess whether failure severity had been unintentionally manipulated when designing the scenarios. In banking, the results confirmed that failure severity was not significantly different across the manipulations of service guarantee ( $M_{\text{high}}=5.57$ ,  $M_{\text{low}}=5.23$ ,  $t(163)=1.40$ ,  $p=.163$ ) or employee behaviour ( $M_{\text{high}}=5.17$ ,  $M_{\text{low}}=5.62$ ,  $t(153)=-1.88$ ,  $p=.062$ ). In car repair, failure severity was not significantly different across the manipulations of employee behaviour ( $M_{\text{high}}=5.25$ ,  $M_{\text{low}}=4.85$ ,  $t(158)=1.58$ ,  $p=.115$ ), yet differed across the manipulations of service guarantee ( $M_{\text{high}}=4.76$ ,  $M_{\text{low}}=5.34$ ,  $t(158)=-2.34$ ,  $p=.02$ ). Notwithstanding, the mean severity scores across the high and low conditions were consistently greater than the scale mid-point of 4. Hence, the detected difference in failure severity was deemed unimportant. For a summary of the manipulation check results, please see Table E2.1 in Appendix H.

### E2.3 ELICITATION OF JUSTICE PERCEPTIONS

As discussed in Part C of this thesis, service guarantee terms and employee behaviour during service recovery are expected to elicit perceptions of justice. In order to test whether guarantee terms and employee behaviour indeed elicit perceptions of justice, Univariate ANOVAs were conducted, in line with prior research (e.g., Gelbrich, 2010). The results are summarised in Table E2.2.

**Table E2.2** Elicitation of justice perceptions – Pilot study

	<b>Banking</b>				<i>F</i>	Sig. (one-tailed)
	<i>High</i>		<i>Low</i>			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Distributive Justice						
<i>Payout</i>	4.40	1.59	3.63	1.54	10.15	.002
Procedural Justice						
<i>Ease of invocation</i>	4.54	1.84	2.98	1.77	30.60	.000
Interpersonal Justice						
<i>Employee Concern</i>	5.96	1.06	2.58	1.64	246.09	.000
Informational Justice						
<i>Employee Communication</i>	4.66	1.34	2.08	1.60	126.38	.000
	<b>Car repair</b>				<i>F</i>	Sig. (one-tailed)
	<i>High</i>		<i>Low</i>			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Distributive Justice						
<i>Payout</i>	4.94	1.60	3.36	1.62	38.50	.000
Procedural Justice						
<i>Ease of invocation</i>	5.11	1.58	3.05	1.63	65.88	.000
Interpersonal Justice						
<i>Employee Concern</i>	5.89	0.97	2.47	1.54	282.87	.000
Informational Justice						
<i>Employee Communication</i>	4.79	1.39	2.07	1.44	147.18	.000

In both contexts, the first ANOVA included the guarantee manipulation as independent variable and distributive justice as dependent variable. As expected, perceptions of distributive justice were significantly higher in the high guarantee payout condition than in the low guarantee payout condition ( $p < .01$ ). A second ANOVA included procedural justice as dependent variable. In both service contexts, perceptions of procedural justice were significantly higher in the high ease of invocation (EoI) condition than in the low EoI condition ( $p < .01$ ). Lastly, Univariate ANOVAs were conducted entering interpersonal and informational justice as dependent variables. As expected, perceptions of interpersonal justice were significantly higher in the high employee concern condition than in the low employee concern condition ( $p < .01$ ). Similarly, perceptions of informational justice were significantly higher in the high employee communication condition than in the low employee communication condition



( $p < .01$ ). The above results confirmed that guarantee terms and employee behaviour at the recovery stage elicit perceptions of justice. Justice perceptions were used as model variables, in line with prior research (see Gelbrich, 2010 for a similar approach). Next, the psychometric properties of the scales are discussed, along with the results from a preliminary inspection of the paths in the conceptual framework.

## **E2.4 MEASUREMENT MODEL ASSESSMENT**

As discussed in Chapter D3, this thesis adopts PLS-SEM analytical technique in order to test the research hypotheses. PLS-SEM is favoured over single regression analysis because this technique accounts for measurement error by testing the measurement and structural models simultaneously. Moreover, PLS-SEM is suitable when testing structural models that include multiple dependent variables (Streukens *et al.*, 2010). The analysis was carried out in two stages. First, the measurement model was assessed. Second, the structural model was examined. The reader is reminded that the main purpose of the pilot study was to establish the psychometric properties of the measures. The pilot study, therefore, focused on the measurement model assessment.

As part of the measurement model assessment, the reliability and validity of the measures adopted in this thesis were assessed. In order to check for validity of latent variables, such as the ones employed in this thesis, first generation regression techniques typically require the use of Exploratory Factor Analysis (EFA). As explained by Gefen and Straub (2005), EFA calculates the relationships between the measurement items and assigns highly correlated items to the same latent variable (or factor). Next, the researcher selects factors based on theoretical grounds. Hence, theory ultimately dictates the factor structure. By contrast, second generation regression techniques such as PLS-SEM do not require EFA. When using PLS-SEM, the researcher specifies the number of factors and the measurement items loading into the factors in advance, based on theoretical grounds. Next, confirmatory factor analysis (CFA) is performed in order to establish the fit of the pre-specified measurement model (Gefen and Straub, 2005). Given the above background, no EFA was run. Assessments of factor validity followed established guidelines in conducting PLS-SEM. Considering that all constructs employed in this thesis include reflective measurement model, reliability and validity tests for reflective constructs were conducted, as discussed in the sections below.

## **E2.5 ASSESSING THE RELIABILITY OF RESEARCH CONSTRUCTS**

Reliability entails *'the extent to which a scale produces consistent results if repeated measurements are made'* (Malhotra and Birks, 2007, p. 357). Different approaches to assessing reliability exist. The discussion below presents the advantages and disadvantages of existing approaches to inspecting reliability, and the approach selected for this thesis.

### **E2.5.1 Test-retest Reliability**

According to the test-retest approach to checking reliability, the same set of measures is administered to respondents at two different points in time, under very similar conditions (Malhotra and Birks, 2007). A scale is reliable if high correlations are obtained from the two measurement occasions, thus indicating that the measure leads to consistent results. Notwithstanding its relevance, the test-retest approach suffers from a number of limitations. First, the time interval between the two measurement occasions can have an impact on the results, such that the longer the time interval, the lower the reliability estimates (Malhotra and Birks, 2007). Second, the first measurement occasion can have a carryover effect to the second measurement occasion. Respondents may, therefore, provide very different answers in the two measurement occasions and the research may come to misleading conclusions that the measure lacks reliability. If, alternatively, respondents remain under the impression that their answers in the second measurement occasion should be similar to those provided in the first measurement occasion, the correlation coefficient may result misleadingly high. Considering the above limitations, this thesis did not employ the test-retest approach to assessing reliability.

### **E2.5.2 Alternative Forms of Reliability**

Based on the alternative forms reliability approach, two alternative sets of a scale are constructed and administered to respondents at two different points in time. A scale is reliable when the scores from the two alternative sets of the scale correlate (Malhotra and Birks, 2007). The process of constructing two sets of a scale and administering these sets at two different points in time is inevitably time consuming. Similarly, creating two sets of a scale with very similar characteristics (e.g., mean values) is difficult. Based on the above considerations, this thesis did not follow the alternative forms reliability test.

### **E2.5.3 Internal Consistency Reliability**

Measuring internal consistency reliability is important when using summated scales, whereby the measurement items tap into different facets of a construct and are summed to form a total score (Malhotra and Birks, 2007). Internal consistency indicates that the measurement items show consistency in what they measure about the underlying construct or latent variable. Split-half reliability is one of the existing approaches to measuring internal consistency. Following the split-half reliability approach, the items on a scale are divided into two halves and the correlation between the half scores is inspected. In order to split the scale items, coefficient alpha (Cronbach's alpha) is commonly used. Cronbach's alpha indicates *'the average of all possible split-half coefficients resulting from different ways of splitting the scale items'* (Malhotra and Birks, 2007, p. 358).

Despite being a popular approach to assessing reliability, Cronbach's alpha is not short of limitations. Cronbach's alpha tends to inflate as the number of scale items increases. Cronbach's alpha assumes that all scale items are equally reliable, though it may not always be the case. Cronbach's alpha can underestimate the internal consistency reliability of constructs, as pointed out by Henseler *et al.* (2009). The same authors consider composite reliability to be a more robust measure of internal consistency than Cronbach's alpha, given that the scale items are prioritized based on their individual reliability estimates. Overall, Cronbach's alpha is a widely used approach to testing internal consistency, and composite reliability is appropriate for PLS-SEM analysis. In this thesis, both Cronbach's alpha ( $\alpha$ ) and composite reliability ( $P_c$ ) estimates were, therefore, used in order to check for the internal consistency of the adopted scales. Results from reliability tests are discussed below.

### **E2.5.4 Results from Reliability Tests**

Reliability tests were conducted using SmartPLS 3.0 software (Ringle, Wende and Becker, 2015). In PLS-SEM, reliability checks are conducted by running the PLS algorithm. The PLS algorithm estimates the path coefficients and the model parameters in a way that the variance of the endogenous, dependent variables is maximised (Lohmöller, 1989). When running the PLS algorithm, the method of determining the structural relationships is selected. As explained by Hair *et al.* (2014), there are three methods of determining structural relationships (also referred to as 'weighting schemes'): centroid, factor and path methods. The literature recommends the path

weighting scheme for its flexibility. This can be easily implemented with different measurement model specifications (e.g., formative and reflective) and higher-order constructs. Further, the path weighting scheme accounts for the direction of the path between endogenous and exogenous variables. Results are consistent across the three approaches, though the path weighting scheme often results in higher R-square values for the endogenous constructs (Hair *et al.*, 2014). Based on the above considerations, the path weighting scheme was used in this thesis. Results from the reliability tests are summarised in Table E2.3 below.

**Table E2.3** Reliability and validity results – Pilot study

Constructs	Banking			Car Repair		
	$\alpha$	Pc	AVE	$\alpha$	Pc	AVE
Distributive justice	0.921	0.941	0.761	0.958	0.968	0.856
Procedural justice	0.965	0.974	0.905	0.973	0.980	0.926
Interpersonal justice	0.983	0.989	0.966	0.986	0.991	0.973
Informational justice	0.928	0.949	0.822	0.954	0.967	0.879
Trust in the firm	0.977	0.981	0.881	0.973	0.978	0.861
Trust in the employee	0.985	0.987	0.895	0.984	0.986	0.887
Commitment	0.967	0.974	0.884	0.977	0.982	0.917
Loyalty	0.981	0.986	0.946	0.988	0.991	0.965

In both service contexts, Cronbach's alpha and composite reliability estimates were above 0.9, thus well above the recommended threshold of 0.7. Internal consistency of the scales was, therefore, satisfactory (Hair *et al.*, 2011). The standardised loadings for the items were well above the acceptable cut-off point of 0.7 (see Table E2.4 in Appendix H). The above finding implies that more than 50% of variance was shared between the construct and each single item. Hence, indicator reliability was confirmed (Henseler *et al.*, 2009; Chin, 2010).

The significance of the standardised loadings was assessed by means of bootstrapping re-sampling procedure set at 5,000 sub-samples, in line with Hair *et al.* (2014). At 0.10, 0.05 and 0.01 levels of significance, the two-tailed critical values are 1.65, 1.96 and 2.57. All individual items were statistically significant at the three levels of significance. Hence, the unidimensionality of the research constructs was established. Overall, the above results confirmed that the measurement model met the standards of reliability.

## E2.6 ASSESSING THE VALIDITY OF RESEARCH CONSTRUCTS

Malhotra and Birks (2007) define validity as '*the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured, rather than systematic or random error*' (p. 358). Issues of *internal validity* were addressed by selecting a scenario-based experimental design (see Part D of the thesis). Issues of *ecological validity* were overcome by conducting realism checks during pre-tests (see Chapter E1). Issues of *external validity* were addressed by testing the conceptual framework in two service contexts – banking and car repair. This section focuses on measurement validity, namely the extent to which the adopted measures reflect the concept they are supposed to denote (Bryman and Bell, 2011). The discussion in the sections below focuses on existing approaches to testing measurement validity, and in particular, content, criterion and construct validity.

### E2.6.1 Content Validity

Content validity (also referred to as 'face validity') is established when the content of a scale items reflects the construct being measured (Malhotra and Birks, 2007). Content validity assessments typically indicate the extent to which the scale items tap into the domain of the constructs under investigation. Such assessments evidently involve some subjectivity, which is a major shortcoming of content validity assessments. Notwithstanding, content validity assessments are important to ensure that the questions asked to respondents actually reflect the concept being measured and are, therefore, suitable for the purpose of the research (Bryman and Bell, 2011).

In this thesis, content validity was established by, firstly, conducting an extensive review of the literature in three streams of research, and secondly, asking marketing academics at Kingston Business School to review the adopted scales. The literature review allowed the author of this thesis to establish the conceptual domain of each research construct of interest, and to operationalise each research construct by following best practice from research in the domain. The review from marketing academics highlighted the need for amendments to the measure of 'customer trust'. Specifically, the author of this thesis was advised to distinguish between cognitive and affective dimensions of trust, and to better contextualise the adopted scales. Upon completion of the above amendments, marketing academics reviewed the revised measurement items and confirmed that the scales tapped into the domain of the

constructs of interest. Content validity was, therefore, established and the scales were deemed appropriate for the purpose of the research conducted in this thesis.

### **E2.6.2 Criterion Validity**

Criterion validity is established when a scale performs as expected in relation to other variables, selected as criterion variables (Malhotra and Birks, 2007). Social science research distinguishes between two forms of criterion validity, namely concurrent and predictive validity. *Concurrent validity* is established when data collected by means of the adopted scale (i.e. intentions to revisit the service provider) and of the criterion variable (i.e. the actual number of times the customer revisits the service provider) coincide. *Predictive validity* examines the extent to which the adopted scale is able to predict another (criterion) variable, for instance, how customer positive attitude towards the firm predicts the number of customer visits. Predictive validity of the customer attitude measure is established when the measure predicts the number of visits.

In this thesis, criterion validity was presumed given that the adopted scales had been extensively used in prior research and their psychometric properties had been established. As pointed out by Peter (1991), a clear definition of the conceptual domain of the research constructs helps to establish the validity of a measure. Therefore, the author of this thesis directed much attention towards defining the conceptual domain of the research constructs of interest and carefully selecting well-established measures (see Part D of this thesis).

### **E2.6.3 Construct Validity**

Construct validity entails the extent to which a scale captures its underlying construct (Malhotra and Birks, 2007). Nomological, convergent and discriminant validity contribute to establishing construct validity. *Nomological validity* is confirmed when the scale correlates with other (distinct) constructs, as predicted by theory. *Convergent validity* relates to the correlation of the measurement items belonging to the same construct. *Discriminant validity* refers to the extent to which the adopted scale and its underlying construct correlate with other constructs, from which they are supposed to differ. In this thesis, nomological validity was established based on a thorough review

of the literature on perceived justice in the field of services marketing. Convergent and discriminant validity were inspected within PLS-SEM, as discussed below.

#### E2.6.4 Results from Validity Tests

In PLS-SEM, convergent validity is assessed by inspecting the average variance extracted (AVE) estimates. AVE indicates the degree to which the items of a scale correlate (Chin, 1998). As shown earlier in Table E2.3, all constructs in the model showed AVE estimates ranging from 0.7 to 0.9, thus above the cut-off point of 0.5. Hence, convergent validity was satisfied, in both banking and car repair contexts. Evidence of convergent validity indicates that the scale items (i.e. indicators) represent the same underlying construct (Chin, 1998; Coelho and Henseler, 2012).

There are three approaches to assessing discriminant validity in PLS-SEM, (i) the Fornell-Larcker criterion (1981), (ii) the cross-loadings analysis, and (iii) the heterotrait-monotrait ratio of correlations (HTMT) (Henseler *et al.*, 2015). According to the Fornell-Larcker criterion (1981), discriminant validity is confirmed when the square root of the AVE for each construct in the model is higher than the construct's bivariate correlations with any other construct in the model. This indicates that a construct shares more variance with its reflective indicators than with any other construct in the model. Based on cross-loadings analysis, discriminant validity exists when an indicator's correlation with the construct intended to measure (i.e. loading) is higher than the indicator's correlation with other constructs in the model (i.e. cross-loading) (Hair *et al.*, 2014). Based on the heterotrait-monotrait ratio of correlations approach (HTMT), discriminant validity is established when the relationships between the indicators *within* the same construct are stronger than those of the indicators *across* constructs (Henseler *et al.*, 2015). This indicates that a construct measures a phenomenon that other constructs do not capture, thus there is discriminant validity between the two constructs.

Results from Fornell-Larcker criterion (1981) to assessing validity are summarised in Table E2.5 below. As illustrated in Table E2.5, the square root of each construct's AVE (values in bold, on the diagonal line) was greater than the construct's highest correlation with any other construct in the model (values in the same row and column). The above results confirmed that all constructs shared more variance with their indicators than with any other construct in the model. Hence, discriminant validity was satisfied in both service contexts.

**Table E2.5** Discriminant validity results – Pilot study

		<i>Banking</i>							
	COMMIT	DJ	TRUST EMPL	TRUST FIRM	IFJ	ITJ	LOYALTY	PJ	
COMMIT	<b>0.94</b>								
DJ	0.792	<b>0.872</b>							
TRUST EMPL	0.886	0.736	<b>0.946</b>						
TRUST FIRM	0.865	0.778	0.826	<b>0.939</b>					
IFJ	0.727	0.605	0.818	0.651	<b>0.907</b>				
ITJ	0.709	0.576	0.861	0.652	0.827	<b>0.983</b>			
LOYALTY	0.906	0.715	0.805	0.783	0.635	0.605	<b>0.973</b>		
PJ	0.846	0.807	0.754	0.84	0.648	0.619	0.721	<b>0.951</b>	

		<i>Car Repair</i>							
	COMMIT	DJ	TRUST EMPL	TRUST FIRM	IFJ	ITJ	LOYALTY	PJ	
COMMIT	<b>0.958</b>								
DJ	0.797	<b>0.925</b>							
TRUST EMPL	0.907	0.731	<b>0.942</b>						
TRUST FIRM	0.803	0.751	0.717	<b>0.928</b>					
IFJ	0.702	0.536	0.784	0.436	<b>0.938</b>				
ITJ	0.683	0.521	0.817	0.441	0.833	<b>0.987</b>			
LOYALTY	0.945	0.742	0.847	0.794	0.654	0.632	<b>0.982</b>		
PJ	0.764	0.857	0.678	0.779	0.444	0.441	0.736	<b>0.962</b>	

Similarly, results from the cross-loadings analysis revealed that the indicators' correlations with their underlying construct were higher than the indicators' correlation with other constructs in the model (cross-loadings). The indicators loaded more highly on the construct intended to measure than on other constructs in the model. Hence, discriminant validity was satisfied (see Tables E2.6 and E2.7 in Appendix H).

Finally, results from the heterotrait-monotrait ratio of correlations (HTMT) showed that the majority of constructs yielded values below the conservative threshold of 0.85 in respect of HTMT (see Table E2.8 in Appendix H). Exceptions were the constructs of loyalty, commitment and trust in the employee, which yielded values greater than 0.90 in respect of HTMT and thus violated the threshold of 0.85. Notwithstanding, given the conceptual similarity of the above constructs, a more liberal threshold of 0.90 was deemed acceptable. Moreover, a statistical test of discriminant validity –  $HTMT_{inference}$  – run via bootstrapping procedure set at 1,000 subsamples showed that the confidence interval for commitment and loyalty did not contain the value of one. The above results provided evidence that commitment and loyalty are distinct (see Table E2.9 in Appendix H). Based on the above, discriminant validity was satisfied by all three procedures. Having established the quality of the measurement model, the data were deemed amenable to further analysis.



## E2.7 TESTING THE SECOND ORDER CONSTRUCT OF TRUST

This thesis operationalizes the constructs of ‘trust in the firm’ and ‘trust in the employee’ as second-order constructs. These constructs entail two first-order constructs corresponding to two widely established dimensions of trust, namely *affective* and *cognitive* trust. According to Hair *et al.* (2014), there are two approaches to establishing higher-order models: top-down and bottom-up. Based on the top-down approach, a general construct is defined as consisting of sub-dimensions in the form of latent variables. On the other hand, the bottom-up approach considers several latent variables combined into a more general construct. In this thesis, a top-down approach was followed, whereby the general construct of trust is defined as consisting of two sub-dimensions, namely cognitive and affective trust.

The inclusion of second-order constructs in a model reduces the number of structural paths, and thus makes the model parsimonious (Hair *et al.*, 2014). Based on the above considerations and the conceptual relevance of affective and cognitive dimensions, trust was operationalized as a second-order construct. A reflective-reflective higher-construct model (HCM) was used, whereby affective and cognitive trust were modelled as sub-dimensions of a general construct of trust. This means that a reflective relationship exists between higher-order component (HOC) and lower-order component (LOC), and all the constructs have reflective measurement. The repeated indicators approach was used to establish the measurement model for the HOCs of trust in the firm and trust in the employee. Based on the repeated indicators approach, the indicators from both LOCs were assigned to the HOCs. Thereafter, the HOCs of trust in the firm and trust in the employee were related to their antecedents (i.e. perceptions of justice) and outcomes (i.e. commitment and loyalty), and used for further analysis.

Further, the measurement model of the HOCs was assessed. Since the HOCs included a reflective measurement, the evaluation criteria for reflective measurement models applied, including composite reliability, indicator reliability and discriminant validity (Hair *et al.*, 2014). As shown in Table E2.10 below, Cronbach’s alpha, composite reliability and AVE estimates were greater than 0.9, thus well above established thresholds (thresholds of 0.5 for AVE and 0.7 for Cronbach’s alpha and composite reliability). Discriminant validity between HOCs and the other constructs in the model was also confirmed (see Table E2.5 in Section E2.6.4). Based on the above discussion, the quality of the measurement model for the HOCs and LOCs included in the model was established and the objective of the pilot study was fulfilled. In addition,

a preliminary inspection of the structural paths was conducted, as discussed in the section below.

**Table E2.10** Reliability and validity of HOCs – Pilot study

Constructs	Banking			Car Repair		
	$\alpha$	Pc	AVE	$\alpha$	Pc	AVE
Affective Trust in employee	0.977	0.985	0.955	0.961	0.975	0.929
Affective Trust in firm	0.959	0.98	0.961	0.96	0.98	0.961
Cognitive Trust in employee	0.981	0.985	0.914	0.981	0.985	0.915
Cognitive Trust in firm	0.973	0.979	0.904	0.975	0.981	0.91

## E2.8 PRELIMINARY INSPECTION OF STRUCTURAL PATHS

As discussed in Section E2.1, the purpose of the pilot study was to confirm the psychometric properties of the measures employed in this thesis and to conduct a preliminary inspection of the paths in the structural model. Results from a preliminary inspection of the structural model are summarised in Table E2.11.

**Table E2.11** Preliminary inspection of the structural paths

Structural paths	Banking			Car Repair		
	Paths(t-value)	R <sup>2</sup>	Q <sup>2</sup>	Paths(t-value)	R <sup>2</sup>	Q <sup>2</sup>
DJ -> TRU_FIRM	0.141(1.98)**	0.798	0.701	0.132(1.43)	0.678	0.58
PJ -> TRU_FIRM	0.419(5.92)***	0.798	0.701	0.456(4.30)***	0.678	0.58
ITJ -> TRU_EMPL	0.581(8.16)***	0.777	0.694	0.539(4.46)***	0.703	0.621
IFJ -> TRU_EMPL	0.338(4.44)***	0.777	0.694	0.335(2.83)***	0.703	0.621
TRU_EMPL -> TRU_FIRM	0.406(5.03)***			0.313(4.50)***		
TRU_FIRM -> COMMIT	0.424(4.83)***	0.841	0.741	0.317(4.97)***	0.87	0.797
TRU_FIRM -> LOYALTY	0.373(4.24)***	0.692	0.653	0.386(5.18)***	0.788	0.759
TRU_EMPL -> COMMIT	0.536(6.20)***	0.841	0.741	0.678(11.65)***	0.87	0.797
TRU_EMPL -> LOYALTY	0.496(5.46)***	0.692	0.653	0.569(7.74)***	0.788	0.759

Note: DJ=Distributive Justice, PJ=Procedural Justice, ITJ=Interpersonal Justice, IFJ=Informational Justice

\*\*  $p < .05$ ; \*\*\*  $p < .01$

In both service contexts, the model showed substantial predictive power, as evidenced by R-square ( $R^2$ ) values greater than 0.6.  $R^2$  values of 0.25, 0.50 and 0.75 indicate a weak, moderate and substantial predictive power, respectively. However,  $R^2$  of 0.20 is acceptable in disciplines such as consumer behaviour (Henseler *et al.*, 2009; Hair *et al.*, 2014). The predictive power of the model was also high, as evidenced by Q-square ( $Q^2$ ) values above 0.5. The individual structural paths were in the hypothesised direction and statistically significant in the banking context ( $p < .05$ ). In car repair, the distributive justice- post-recovery trust in the firm path was not significant ( $p > .05$ ).

though all other paths reached significance and were in the hypothesised direction. The above preliminary findings indicate that the conceptual framework has substantial predictive power. Notwithstanding, the moderating effects of firm reputation for fairness and inferred motive were not taken into account. The analysis of the main and moderating effects is discussed in detail in Chapter E3.

## CHAPTER E3: ANALYSIS AND RESULTS FROM MAIN STUDY

### E3.1 PURPOSE OF THE MAIN STUDY

The purpose of the main study was to inspect the structural paths, and thus to test the research hypotheses. Overall, 2,432 email invites were sent out to respondents and 1,349 completes were obtained across both service contexts, resulting in a response rate of 55 per cent. The validity of responses was checked. Based on the above checks, 691 responses were removed from banking and car repair datasets. Responses were deemed not valid when, for instance, respondents did not pay attention in answering the questions, or did not meet screening criteria. Overall, 658 responses were retained (banking,  $n=314$ ; car repair,  $n=344$ ) and used for statistical analysis. The results from the analysis are discussed below.

### E3.2 PRELIMINARY CHECKS

#### E3.2.1 Elicitation of Justice Perceptions

Given that manipulation and realism checks were conducted during the pre-tests and pilot study (see Chapters E1 and E2 of this thesis), the above checks were not conducted in the main study. Statistical tests were, however, replicated to confirm that the manipulations of guarantee terms and employee behaviour elicited perceptions of justice in the context of the new dataset as well. Consistent with prior research (e.g., Gelbrich, 2010), Univariate ANOVAs were conducted. The results from the elicitation tests are summarised in Table E3.1 (see Appendix I). As expected, all manipulations elicited the four dimensions of perceived justice in both banking and car repair contexts ( $p<.01$ ). Accordingly, perceptions of justice, not the manipulations of guarantee terms and employee behaviour, were used as model variables. The focus of this thesis on customer *subjective assessments* of employee behaviour and service guarantee policies employed at the recovery stage informs the above methodological decision (see also discussion in Chapter B1 of this thesis). Moreover, the above practice is consistent with prior research (e.g., Schoefer and Ennew, 2005).

#### E3.2.2 Assessment of Common Method Variance

Common method variance (CMV) indicates *'the amount of spurious covariance shared among variables because of the common method used in collecting data'*

(Malhotra, Kim and Patil, 2006, p. 1865). In other words, CMV refers to the variance attributable to the measurement method as opposed to the constructs of interest (Podsakoff *et al.*, 2003). CMV can confound results, thereby threatening the validity of conclusions and it represents a major concern for studies employing Likert-type scales for all the constructs and a single method of data collection (Wilson, 2010). Given that this thesis used 7-point Likert type scales and a single method of data collection, CMV could be a reason for concern. In order to detect and control for CMV, Podsakoff *et al.* (2003) suggest the use of procedural and statistical remedies. Consistent with Podsakoff *et al.* (2003), this thesis used procedural and statistical remedies. Procedural remedies were followed at the time of designing the questionnaire (see Section D2.4). The statistical remedies employed in this thesis are discussed below.

The literature identifies several statistical remedies, as summarised in Table E3.2 (see Appendix I). All statistical remedies have advantages and disadvantages. For instance, Harman's single-factor test is a popular statistical remedy to detect CMV (Podsakoff and Organ, 1986; Malhotra *et al.*, 2006). Harman's single factor test may detect CMV, but it does not control for CMV. Alternatively, partial correlation procedures are recommended (i.e. procedures 2-4 in Table E3.2). Despite being easy-to-use, partial correlation techniques account for the method bias associated with the constructs, not the bias associated with the measures. Statistical remedies involving latent constructs account for method bias associated with the measurement model (i.e. procedures 5-9 in Table E3.2).

This thesis employed the conservative Harman's single-factor and the unmeasured latent method factor (ULMF) procedures. The selection of the above statistical remedies was based on a number of considerations, including whether; the data could be obtained from different methods and/or different measurement contexts, and whether the source of CMV could be identified a priori. In this thesis, data were obtained using one method, in a single measurement context and the source of CMV could not be identified a priori. In such circumstances, Podsakoff *et al.* (2003) recommend the use of the ULMF procedure. Harman's single-factor test was conducted by means of exploratory factor analysis (EFA) including all variables in the thesis. The unrotated factor solution was inspected to determine whether, (i) a single factor emerged from the analysis, and/or (ii) this factor accounted for most of the covariance in the independent and dependent variables (Podsakoff and Organ, 1986). In both service contexts, results from Harman's test showed that more than one factor was

present and the variance explained ranged between 25 and 27 per cent. CMV was, therefore, not a reason for concern.

The ULMF procedure was conducted following the procedure suggested by Liang *et al.* (2007). First, a method construct (or latent method factor) was added to the model in SmartPLS. All the measures in the model were included as indicators of the method construct. Since PLS-SEM does not allow one indicator to belong to more than one construct (e.g., main construct and the method construct), all constructs and thus including the method construct, were converted into second-order constructs. Following this conversion, the indicators became single-item constructs. Second, the method factor was linked to all single-item constructs (see Figure E3.1 in Appendix I). Third, the statistical significance of the loadings on the main constructs (i.e. substantive constructs) and the method construct was calculated via bootstrapping resampling procedure set at 500 subsamples.

For each single-item construct, the coefficient of the incoming paths from the substantive construct and the method construct (i.e. loadings) were inspected. Specifically, the statistical significance of the loadings of the substantive constructs was compared with the statistical significance of the loading of the method construct. Further, the average variance (calculated by squaring the loadings) of the substantive factors was compared with the average variance of the method factor. CMV represents a serious concern if the loadings of the method construct are statistically significant, and the average variance for the method construct is greater than the average variance for the substantive constructs (Liang *et al.* 2007). In this thesis, the average variance explained by the substantive constructs was 0.889 in banking and 0.916 in car repair. By contrast, the average variance explained by the method factor was 0.223 in banking and 0.105 in car repair. The majority of loadings for the method construct were not statistically significant (see Tables E3.3 and E3.4 in Appendix I). Based on the above results, CMV did not represent an issue for concern.

### E3.3 MEASUREMENT MODEL ASSESSMENT

The pilot study established the validity of the measurement model (see Chapter E2 of this thesis). The measurement model assessment is a necessary step in PLS-SEM analysis. Valid estimates are obtained from the structural model assessment, as long as the measurement model assessment provides evidence of the measures' reliability and validity. Hence, the measurement model assessment was conducted as part of the main study as well, and with the use of a larger dataset (banking, n=314; car repair, n=344). The reliability and validity of the moderators was also inspected. The reader is reminded that the focus of this part of the thesis is on the structural model assessment, and thus on testing the research hypotheses.

#### E3.3.1 Reliability and Validity of Reflective Constructs

The reliability of measures was assessed by running the PLS algorithm following the path weighting scheme, in line with recommendations by Hair *et al.* (2014). As shown in Table E3.5 below, Cronbach's alpha and composite reliability estimates were above 0.8 and well above the recommended threshold of 0.7. Therefore, the internal consistency of the scales was confirmed (Hair *et al.*, 2011). The standardised loadings were also above the acceptable cut-off point of 0.7, and significant at a significance level of 5% (see Table E3.6 in Appendix I). Therefore, indicator reliability and the unidimensionality of all constructs were confirmed, in both service contexts (Henseler *et al.*, 2009; Chin, 2010).

**Table E3.5** Reliability and validity results – Main study

Constructs	Banking			Car Repair		
	$\alpha$	Pc	AVE	$\alpha$	Pc	AVE
Distributive justice	0.911	0.934	0.739	0.943	0.957	0.816
Procedural justice	0.969	0.977	0.914	0.966	0.975	0.908
Interpersonal justice	0.989	0.993	0.979	0.985	0.99	0.971
Informational justice	0.873	0.913	0.726	0.902	0.931	0.773
Trust in the firm	0.970	0.975	0.846	0.979	0.982	0.889
Trust in the employee	0.975	0.979	0.836	0.985	0.987	0.893
Commitment	0.963	0.972	0.873	0.965	0.973	0.877
Loyalty	0.976	0.982	0.932	0.993	0.994	0.978
Reputation	0.977	0.983	0.936	0.982	0.987	0.949
Inferred motive	0.938	0.952	0.767	0.956	0.965	0.822

With respect to validity, the average variance extracted (AVE) estimates ranged from 0.7 to 0.9, and were above the cut-off point of 0.5, in banking and car repair. Hence, convergent validity was satisfied (Chin, 1998; Coelho and Henseler, 2012). Discriminant validity was established by means of Fornell-Larcker criterion (1981),

cross-loadings analysis and the multitrait-multimethod ratio of correlations. In banking, the square root of each construct's AVE is greater than the construct's correlations with any other construct in the model (see Table E3.7 below).

**Table E3.7** Discriminant validity results

										<i>Banking</i>																			
										COMMIT	DJ	FR	TRU EMPL	TRU FIRM	IFJ	ITJ	LOY	PJ											
COMMIT	<b>0.934</b>																												
DJ	0.725	<b>0.86</b>																											
FR	0.435	0.225	<b>0.968</b>																										
TRU_EMPL	0.83	0.673	0.304	<b>0.914</b>																									
TRU_FIRM	0.778	0.617	0.611	0.666	<b>0.92</b>																								
IFJ	0.569	0.489	0.171	0.73	0.448	<b>0.852</b>																							
ITJ	0.599	0.52	0.177	0.814	0.454	0.794	<b>0.99</b>																						
LOY	0.905	0.66	0.490	0.789	0.772	0.55	0.581	<b>0.973</b>																					
PJ	0.72	0.755	0.272	0.617	0.652	0.417	0.437	0.721	<b>0.956</b>																				
										COMMIT	DJ	TRU EMPL	TRU FIRM	IFJ	ITJ	IM	LOY	PJ											
COMMIT	<b>0.934</b>																												
DJ	0.725	<b>0.86</b>																											
TRU_EMPL	0.83	0.673	<b>0.914</b>																										
TRU_FIRM	0.778	0.617	0.666	<b>0.92</b>																									
IFJ	0.569	0.489	0.73	0.448	<b>0.852</b>																								
ITJ	0.599	0.52	0.814	0.454	0.794	<b>0.99</b>																							
IM	-0.593	-0.454	-0.622	-0.492	-0.409	-0.498	<b>0.876</b>																						
LOY	0.905	0.66	0.490	0.789	0.772	0.55	0.581	<b>0.973</b>																					
PJ	0.72	0.755	0.272	0.617	0.652	0.417	0.437	0.721	<b>0.956</b>																				
										<i>Car Repair</i>																			
										COMMIT	DJ	FR	TRU EMPL	TRU FIRM	IFJ	ITJ	LOY	PJ											
COMMIT	<b>0.936</b>																												
DJ	0.76	<b>0.904</b>																											
FR	0.403	0.246	<b>0.974</b>																										
TRU_EMPL	0.898	0.697	0.398	<b>0.945</b>																									
TRU_FIRM	0.755	0.683	0.562	0.737	<b>0.943</b>																								
IFJ	0.622	0.518	0.208	0.673	0.484	<b>0.879</b>																							
ITJ	0.748	0.583	0.244	0.832	0.568	0.734	<b>0.986</b>																						
LOY	0.917	0.668	0.423	0.856	0.715	0.63	0.715	<b>0.989</b>																					
PJ	0.748	0.834	0.299	0.693	0.72	0.472	0.585	0.682	<b>0.953</b>																				
										COMMIT	DJ	TRU EMPL	TRU FIRM	IFJ	ITJ	IM	LOY	PJ											
COMMIT	<b>0.936</b>																												
DJ	0.76	<b>0.904</b>																											
TRU_EMPL	0.898	0.698	<b>0.945</b>																										
TRU_FIRM	0.755	0.683	0.737	<b>0.943</b>																									
IFJ	0.622	0.518	0.673	0.484	<b>0.879</b>																								
ITJ	0.748	0.583	0.832	0.568	0.734	<b>0.986</b>																							
IM	-0.727	-0.604	-0.705	-0.610	-0.512	-0.600	<b>0.907</b>																						
LOY	0.917	0.668	0.856	0.715	0.63	0.715	-0.702	<b>0.989</b>																					
PJ	0.748	0.834	0.693	0.72	0.472	0.585	-0.609	0.682	<b>0.953</b>																				

**Note:** FR=Firm reputation for fairness; IM=Inferred Motive

Results from the cross-loadings analysis and the heterotrait-monotrait ratio (HTMT) also confirmed that discriminant validity was satisfied (see Tables E3.8-E3.11



in Appendix I). Results from the heterotrait-monotrait ratio (HTMT) showed that all constructs yielded values ranging between 0.44 and 0.85 in respect of HTMT and within the conservative threshold of 0.85 (Henseler *et al.*, 2015). In banking, the constructs of loyalty and commitment were an exception, and yielded values above 0.9 in respect of HTMT, thereby violating the 0.85 threshold. Similarly, in car repair, the constructs of loyalty and trust in the employee yielded values of 0.94 and 0.92, respectively. However, the  $HTMT_{inference}$  indicated that the confidence interval for commitment and loyalty (banking) and loyalty and trust in the employee (car repair) did not include the value of one. Hence, discriminant validity was established based on the  $HTMT_{inference}$ .

In car repair, results from the Fornell-Larcker criterion (1981) to assessing discriminant validity also indicated that the square root of each construct's AVE is greater than the construct's correlations with any other construct in the model (see Table E3.8 below). Based on the above discussed results, all constructs in the model shared greater variance with their indicators than with any other construct in the model. Discriminant validity was, therefore, confirmed (Fornell-Larcker criterion, 1981).

### E3.3.2 Multicollinearity tests

Multicollinearity can be a source of bias, and it is, therefore, an issue deserving attention. There are different types of multicollinearity. Multicollinearity *between indicators of a latent variable* represents a reason for concern when dealing with formative constructs, as this can cause instability for the indicator weights (Hair *et al.*, 2011). This type of multicollinearity was not a reason for concern in this thesis given that all variables in the model have reflective specification. Multicollinearity *between (theoretically different) latent variables*, on the other hand, is a well-known problem when modeling moderating effects through interaction terms (Henseler and Fassott, 2010). In order to overcome this type of multicollinearity, Chin *et al.* (2003) recommend centering the indicators. In line with the above recommendations, the indicators in this thesis were centered when running moderation analysis. Further, the multicollinearity between the latent variables in the (inner) model was checked using the variance inflation factor (VIF) test in SmartPLS 3 software.

Scholars have suggested benchmarks for estimating multicollinearity based on VIF values. For example, Hair *et al.* (2011) state that VIF values greater than 5 indicate multicollinearity. Henseler *et al.* (2009), on the other hand, use the cut-off of 10. In a recent article, Guide and Ketokivi (2015) reconcile the above divergence by suggesting

to consider VIF values in relation to the sample size used for the research. The authors explain that '*variances of estimates are very small, therefore, even a tenfold (VIF = 10) increase may not present any significant problems. In a small sample, doubling of the variance (VIF=2) may already be cause for concern*' (p. vii). In this thesis, results from the VIF test showed VIF values lower than 5 across both service contexts (see Table E3.12 in Appendix I). The thesis included samples of 314 cases (banking) and 344 cases (car repair), which are larger than the minimum sample size requirement of 240 cases (see discussion in Chapter D3 of this thesis). Hence, VIF values as large as 10 would equally indicate a lack of multicollinearity.

Overall, PLS is a robust technique against multicollinearity (Tenenhaus, Vinzi, Chatelin and Lauro, 2005). Data-related issues such as multicollinearity in measurement and structural models, as well as issues of skewness, have minimal effect on the latent variable scores calculated in PLS-SEM (Reinartz *et al.*, 2009). By conducting five PLS-based studies on customer satisfaction, Kristensen and Eskildsen (2010) also demonstrate that multicollinearity between latent variables has limited effect on the bias of the path coefficients. The same study deliberates that PLS-SEM is a suitable correction technique when multicollinearity is severe. Given the above considerations and the results from the VIF test, multicollinearity between latent variables did not represent an issue for concern in this thesis.

### E3.3.3 Reliability and Validity of Second Order Constructs

As discussed in Section E2.7, this thesis operationalized ‘trust in the firm’ and ‘trust in the employee’ as second-order constructs, which entail two first-order constructs - affective and cognitive trust. A reflective-reflective higher-construct model (HCM) was used, whereby affective and cognitive trust were modelled as sub-dimensions of a general construct of trust. Following Hair *et al.* (2014), the measurement model of the higher-order constructs (HOCs) needs to be inspected before proceeding with the structural model assessment. The composite and indicator reliability, and discriminant validity of the HOCs were, therefore, inspected.

As shown in Table E3.13 below, Cronbach’s alpha, composite reliability and AVE estimates were greater than 0.9, and well above established thresholds of 0.5 for AVE and 0.7 for Cronbach’s alpha and composite reliability. Further, discriminant validity between the higher-order constructs and the other constructs in the model was earlier confirmed (see Table E3.7). The above discussion confirmed that the measurement characteristics of constructs were acceptable, across both banking and car repair contexts. Next, the structural model was assessed, as further discussed below.

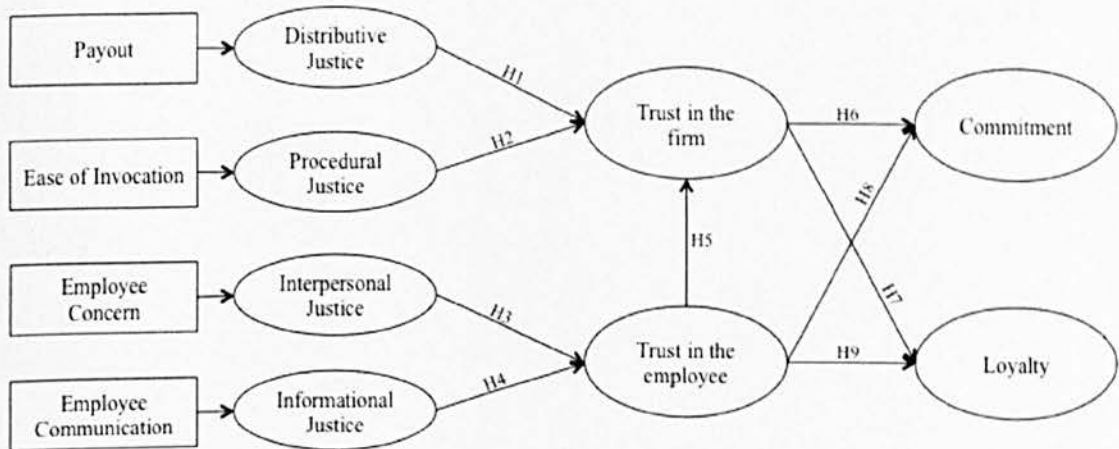
**Table E3.13** Reliability and validity of HOCs – Main study

Constructs	Banking			Car Repair		
	$\alpha$	Pc	AVE	$\alpha$	Pc	AVE
Affective Trust in employee	0.961	0.975	0.927	0.981	0.988	0.964
Affective Trust in firm	0.95	0.976	0.952	0.98	0.99	0.981
Cognitive Trust in employee	0.963	0.97	0.845	0.98	0.984	0.912
Cognitive Trust in firm	0.965	0.973	0.876	0.977	0.982	0.916

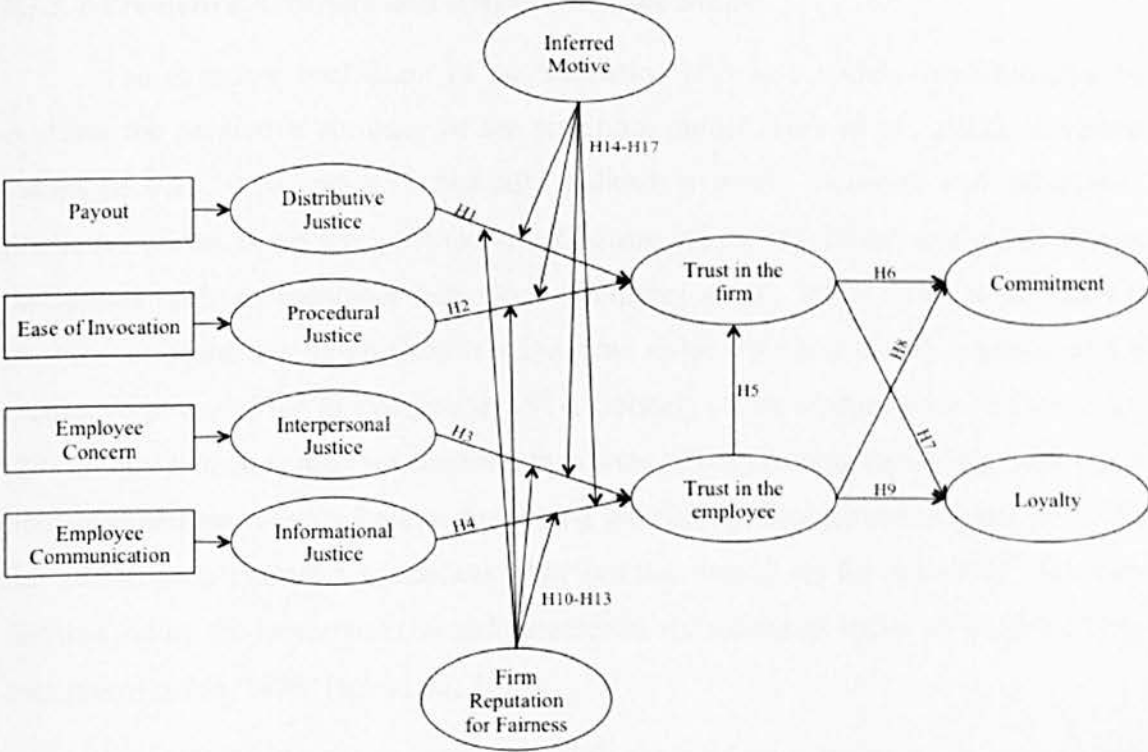
### E3.4 STRUCTURAL MODEL ASSESSMENT

As part of the structural model assessment, the following four criteria were assessed: (1) the coefficient of determination ( $R^2$  value), which is a measure of the model's predictive accuracy, (2) the Q-square value ( $Q^2$ ), which is a measure of the model's predictive relevance, (3) effect size ( $f^2$ ), which indicates the relative impact of the structural paths in explaining the endogenous constructs, and (4) the size, direction and significance of the structural paths. Moreover, the hypothesised moderating effects of firm reputation for fairness and inferred motive were inspected. Consistent with prior research (e.g., Sharma, Durand and Gur-Arie, 1981; Henseler *et al.*, 2007; Gelbrich, 2010), two structural models were estimated (see Figures E3.2 and E3.3). Model A comprises the main effects of perceived justice dimensions on customer post-recovery trust and subsequent outcomes (also known as 'main effects model', Henseler and Chin, 2010). Model B includes Model A plus an interaction term for each of the two moderating variables (also known as 'interaction effects model', Henseler and Chin, 2010). Effect size was calculated in order to determine the merit of the interaction terms to the predictive power of the model. The results from the above analyses are presented separately for firm reputation for fairness and inferred motive.

**Figure E3.2** Model A – Effects of perceived justice elicited by service guarantee and employee behaviour on post-recovery trust (main effects model)



**Figure E3.3** Model B – Conceptual framework (Model A + moderating effects: interaction effects model)



## E3.5 RESULTS FROM THE STRUCTURAL MODEL ASSESSMENT

### E3.5.1 Predictive Accuracy and Relevance of the Model

The R-square coefficient of determination ( $R^2$ ) is a widely used measure to evaluate the predictive accuracy of the structural model (Hair *et al.*, 2012). R-square values of 0.25, 0.50 and 0.75 typically indicate a weak, moderate and substantial predictive power, respectively. However, R-square values of 0.20 are also acceptable in disciplines such as consumer behaviour (Henseler *et al.*, 2009; Hair *et al.*, 2014). Besides R-square, the Stone-Geisser's Q-square value ( $Q^2$ ) is a useful measure of the predictive power of the model (Stone, 1974; Geisser, 1974). Consistent with Hair *et al.* (2014), the Q-square value is calculated by means of blindfolding procedure, which is a predictive sample reuse technique. Following the blindfolding procedure, data points in the endogenous construct's indicators are omitted based on the blindfold omission distance set by the researcher (D) and parameters are estimated based on the remaining data points (Chin, 1998; Hair *et al.*, 2014).

SmartPLS software runs the blindfolding procedure as many times as indicated by the blindfold omission distance. When using a large sample, Hair *et al.* (2014) recommend setting the omission distance at a value ranging between five and ten. Importantly, the omission distance should not result in an integer when the total number of cases is divided by the omission distance. The blindfolding procedure can be used when dealing with endogenous single-item or multi-item constructs with reflective measurement (Hair *et al.*, 2014). There are two approaches to calculating Q-square - cross-validated redundancy and cross-validated communality. Whilst the former approach relies upon estimates of both measurement and structural models, the latter approach includes estimates for the endogenous constructs only. The cross-validated redundancy approach fits with the assumptions of PLS-SEM and it is, therefore, is recommended (Hair *et al.*, 2014). A cross-validated redundancy measure ( $Q^2$ ) above 0.5 indicates high predictive validity of the model (Chin, 2010).

In this thesis, all research constructs included reflective measurement. Hence, the blindfolding procedure could be used. In particular, the cross-validated redundancy approach was followed. In both service contexts, the Q-square value was calculated via blindfolding procedure set at omission distance of six. Following Wold (1982), the omission distance of six was chosen on the basis that the total number of cases divided by six did not result in an integer (banking,  $314/6=52.33$ ; car repair,  $344/6=57.33$ ). As shown in Table E3.13, R-square values were above 0.5 and 0.75 for most constructs.

The above results indicate that moderate to substantial predictive accuracy of the model. Further, the Q-square value for all endogenous constructs in the model was larger than 0.5, thus confirming that the model holds high predictive relevance. Upon confirmation of the predictive power of the model, the size and significance of the individual structural paths were inspected, as further discussed below.

**Table E3.14** Predictive accuracy and relevance estimates

Endogenous constructs	Banking		Car Repair	
	R <sup>2</sup>	Q <sup>2</sup>	R <sup>2</sup>	Q <sup>2</sup>
TRUST EMPL	0.541	0.569	0.63	0.624
TRUST FIRM	0.682	0.451	0.7	0.559
COMMIT	0.78	0.677	0.826	0.702
LOYALTY	0.731	0.678	0.748	0.728

### E3.5.2 Effect Size

In order to assess the extent to which the inclusion of predictors increases the variance explained for the endogenous constructs, the effect size ( $f^2$ ) was calculated. The effect size indicates the change in the R<sup>2</sup> values of the endogenous constructs when a predictor is omitted from the model (Hair *et al.*, 2014). In this thesis, the effect size was calculated by using the formula recommended by Chin, Marcolin and Newsted (2003), and detailed below:

$$f^2 = \frac{R_{included}^2 - R_{excluded}^2}{1 - R_{included}^2}$$

In the above formula, R<sup>2</sup><sub>included</sub> indicates the R-square value of the endogenous construct of interest when the predictor is *included* in the model, whereas R<sup>2</sup><sub>excluded</sub> indicates the R-square value of the endogenous construct of interest when the predictor is *excluded* from the model. In practice, R<sup>2</sup><sub>included</sub> and R<sup>2</sup><sub>excluded</sub> are obtained by performing bootstrap analysis twice. The first time the model includes the predictor, whereas the second time, the model excludes the predictor. Further, the significance of the effect size is assessed by performing a pseudo F-test. The pseudo F-test is calculated by using the formula recommended by Chin (2010), and detailed below:

$$F = \frac{\frac{R_2^2 - R_1^2}{k_2 - k_1}}{\frac{1 - R_2^2}{N - k_2 - 1}}$$

In the above formula,  $R^2_1$  is the R-square of the model where the predictor is excluded and  $R^2_2$  is the R-square of the model where the predictor is included;  $k_1$  and  $k_2$  indicate the number of predictors in the two models,  $N$  is the sample size, and  $k_2-1$  indicates the degrees of freedom. Following Cohen (1988), effect size values of 0.02, 0.15 and 0.35 indicate small, medium and large effects, respectively.

Following the above formulas, the effect size for the individual paths was calculated (see Table E3.15 below). In banking, the inclusion of procedural justice as an antecedent of post-recovery trust in the firm yielded a small, significant effect size ( $f^2=0.10$ ). By contrast, post-recovery trust in the employee yielded a medium, significant effect size ( $f^2=0.17$ ). The inclusion of interpersonal justice as an antecedent of post-recovery trust in the employee yielded a large and significant effect on the variance explained for post-recovery trust in the employee ( $f^2=0.47$ ). By contrast, the inclusion of informational justice as antecedent of post-recovery trust in the employee yielded a significant, but small effect size ( $f^2=0.06$ ). The effect size of types of trust – in the firm and in the employee – on commitment (post-recovery trust in the firm  $f^2=0.40$ -0.41) and loyalty ( $f^2=0.50$ -0.89) are large and significant.

**Table E3.15** Effect size for individual constructs

Endogenous constructs	Banking			Car Repair		
	$R^2_{included}$	$R^2_{excluded}$	$f^2$	$R^2_{included}$	$R^2_{excluded}$	$f^2$
Trust Firm						
Distributive Justice	0.541	0.537	0.01	0.63	0.627	0.01
Procedural Justice	0.541	0.496	0.10*	0.63	0.599	0.08*
Trust Employee	0.541	0.461	0.17*	0.63	0.541	0.24*
Trust Employee						
Interpersonal Justice	0.682	0.533	0.47*	0.7	0.453	0.82*
Informational Justice	0.682	0.663	0.06*	0.7	0.692	0.03*
Commitment						
Trust Firm	0.78	0.691	0.40*	0.826	0.807	0.11*
Trust Employee	0.78	0.606	0.79*	0.826	0.572	1.46*
Loyalty						
Trust Firm	0.731	0.622	0.41*	0.748	0.732	0.06*
Trust Employee	0.731	0.622	0.50*	0.748	0.512	0.94*

$p < .05$  using pseudo F-test

In car repair, the effect size for the endogenous constructs was largely consistent with findings obtained in banking. As shown in Table E3.15 above, the inclusion of procedural justice as antecedent of post-recovery trust in the firm yielded a small, but significant effect size ( $f^2=0.08$ ). By contrast, post-recovery trust in the employee yielded a medium, significant effect size ( $f^2=0.24$ ). The inclusion of interpersonal justice as



antecedent of post-recovery trust in the employee led to an increase of R-square for post-recovery trust in the employee from 0.45 to 0.70 (large effect based on Cohen, 1988). By contrast, the inclusion of informational justice as antecedent of post-recovery trust in the employee yielded a significant, but small effect size ( $f^2=0.03$ ). Further, post-recovery trust in the employee yielded a very large effect size on both commitment ( $f^2=1.46$ ) and loyalty ( $f^2=0.94$ ). Post-recovery trust in the firm, on the other hand, showed a significant, yet small effect size in predicting both commitment and loyalty (commitment,  $f^2=0.11$ ; loyalty,  $f^2=0.06$ ).

### E3.5.3 Size and Significance of Structural Paths

PLS-SEM is known as a soft modeling approach (Chin, 2010). As such, PLS-SEM does not make assumptions that data are normally distributed. Consequently, parametric significance tests cannot be used in order to inspect the significance of the loadings and/or structural paths (Hair *et al.*, 2014). Alternatively, a nonparametric bootstrap procedure is followed (Chin, 1998). Hair *et al.* (2014) explain that, based on the bootstrapping procedure, *'a large number of subsamples (i.e. bootstrap samples) are drawn from the original sample with replacement'* (Hair *et al.*, 2014, p. 130). The same authors indicate that the number of bootstrap samples is typically higher than the number of observations, and it ranges between 500 and 5,000.

In this thesis, the size, direction and significance of the structural paths were inspected following bootstrapping procedure set at 1,000 subsamples and at a significance level of 5%. As shown in Table E3.16 below, all individual paths were in the hypothesised direction and significant, with the exception of the path between distributive justice and post-recovery trust in the firm. In both banking and car repair contexts, distributive justice elicited by guarantee payout did not show a significant impact on post-recovery trust in the firm ( $p<.05$ ).

The above findings explored the cause-effect relationships in the main effect model (see Figure E3.2), whereby exogenous latent variables (predictor variables) directly affect endogenous latent variables (criterion variables). However, in some instances, the direct relationship between a predictor variable and a criterion variable may not provide a complete understanding of the social phenomenon under investigation. As Sharma *et al.* (1981) state, *'in some cases the predictive efficacy of an independent variable and/or the form of the relationship may vary systematically as a function of some other variable(s)'* (p. 291). This thesis hypothesises influences from

moderator variables – firm reputation for fairness and inferred motive. According to Sharma *et al.* (1981), a moderator is a variable that ‘*systematically modifies either the form and/or the strength of the relationship between a predictor and a criterion variable*’ (p. 291). In this thesis, the moderator variables are expected to contribute to explaining the lack of significant relationship between distributive justice and post-recovery trust in the firm, and to modify the strength of the relationships between the types of perceived justice and post-recovery trust. Results from the analysis of moderating effects are discussed in the sections below.

**Table E3.16** Path coefficients and t-values

<b>Structural paths</b>	<b>Banking Path(t-value)</b>	<b>Car Repair Path(t-value)</b>
DJ -> TRU_FIRM	0.0999(1.41)	0.101(1.25)
PJ -> TRU_FIRM	0.334(5.43)***	0.334(4.54)***
ITJ -> TRU_EMPL	0.630(10.09)***	0.731(16.76)***
IFJ -> TRU_EMPL	0.234(3.24)***	0.136(2.52)**
TRU_EMPL -> TRU_FIRM	0.393(6.49)***	0.435(6.61)***
TRU_FIRM -> COMMIT	0.405(7.41)***	0.205(4.58)***
TRU_FIRM -> LOYALTY	0.444(8.17)***	0.185(4.25)***
TRU_EMPL -> COMMIT	0.561(10.07)***	0.747(18.31)***
TRU_EMPL -> LOYALTY	0.493(8.80)***	0.719(16.32)***

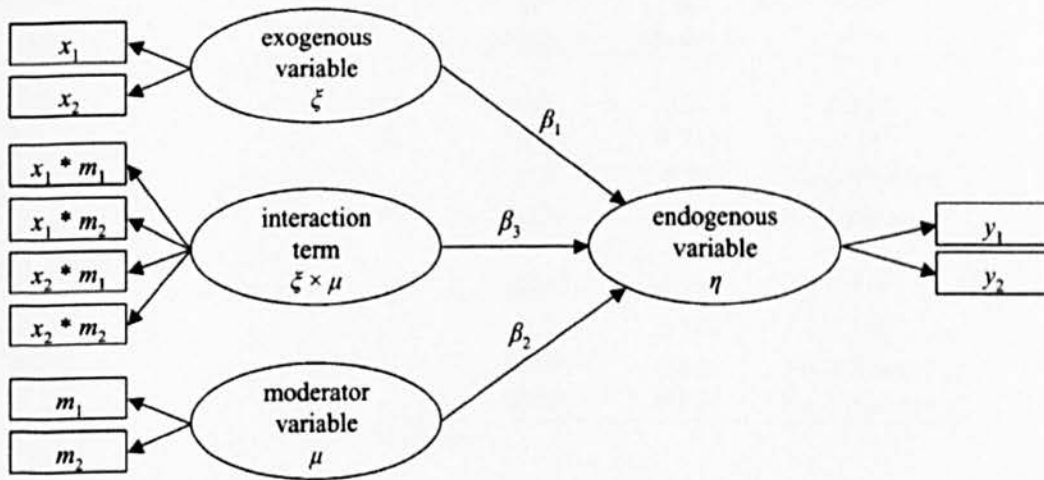
\* $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

#### E3.5.4 Selected Approach to Testing Moderation

The literature identifies a number of approaches to testing moderation in PLS-SEM (see brief overview in Table E3.17, Appendix L). These include, for instance, the product indicator approach, the two-stage approach, and multi-group analysis. The selection of one or the other approach is commonly based on two main considerations: 1) the purpose of moderation, and 2) the nature of the moderator, thus whether the moderator is a continuous or dichotomous variable. Henseler and Chin (2010) recommend the product indicator approach when the researcher seeks to obtain an estimate for the true parameter of a moderating effect. The product indicator approach is suitable when moderators are continuous variables (Hair *et al.*, 2014) and sample sizes are medium to large (Henseler and Chin, 2010). In this thesis, the objective of moderation was to explain how the strength of the relationships between the types of perceived justice and post-recovery trust change due to the moderator variables. The moderators – firm reputation for fairness and inferred motive – were continuous variables. Based on the above considerations, the product indicator approach to testing moderation was used.

Following the product indicator approach, an interaction term is added to the model as a latent variable. The interaction term covers the product (or multiplication) of the indicators of the (latent) independent variables and those of the (latent) moderator variables, as illustrated in Figure E3.4 below. The literature uses ‘product term’ and ‘interaction term’ interchangeably. Consistent with the above wording, scholars often refer to ‘interaction effects’ in order to denote the inclusion of moderator variables (Hair *et al.*, 2014).

**Figure E3.4** Product indicator approach to testing moderation



Source: Henseler, J. and Chin, W.W. (2010) ‘A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling’, *Structural Equation Modeling*, 17(1), p. 85.

Following the product indicator approach, the predictive accuracy of two models is compared, the main effects model (i.e. Model A) and the interaction effects model (i.e. Model B). In order to evaluate whether the inclusion of the moderator significantly increases the variance explained for the endogenous constructs, the proportion of variance explained by Model A (main effects model) is compared with the proportion of variance explained by Model B (interaction effects model). In practice, the effect size ( $f^2$ ) is calculated following the formula recommended by Chin *et al.* (2003) and illustrated in Section E3.5.2. In this instance,  $R^2_{included}$  indicates the R-square value of the endogenous construct of interest when the moderator is included in the model, whereas  $R^2_{excluded}$  indicates the R-square value of the endogenous construct of interest when the moderator is excluded from the model. In practice,  $R^2_{included}$  and  $R^2_{excluded}$  are obtained by performing bootstrap analysis for two structural models – the main effects

model and the interaction effects models. Moreover, a pseudo F-test is performed in order to check the significance of the effect size (see formula in Section E3.5.2).

### E3.5.5 Moderating Effect of Firm Reputation for Fairness

As discussed in Section E3.5.4, the moderating effect of firm reputation for fairness was tested by means of the product indicator approach in PLS-SEM. The results from the analysis of moderation are summarised in Table E3.18.

**Table E3.18** R-square values and effect size

Constructs	R <sup>2</sup> Model A	R <sup>2</sup> Model B	f <sup>2</sup>
<b>Banking</b>			
TRU_FIRM	0.541	0.71	0.58*
TRU_EMPL	0.682	0.711	0.1*
COMMIT	0.78	0.78	No difference
LOYALTY	0.731	0.731	No difference
<b>Car Repair</b>			
TRU_FIRM	0.63	0.718	0.31*
TRU_EMPL	0.7	0.746	0.18*
COMMIT	0.826	0.826	No difference
LOY	0.748	0.748	No difference

*p* < .05 using pseudo F-test

In both service contexts, the main effects and the interaction effects models (i.e. Models A and B) showed R-square values ranging between 0.50 and 0.83. Notably, the model's accuracy in predicting the two types of post-recovery trust – trust in the firm and in the employee – increased when firm reputation for fairness was considered. In fact, the interaction effects model (Model B) held substantial predictive accuracy across all endogenous constructs (R-square values above 0.75, Hair *et al.*, 2011).

In banking, the inclusion of the moderator yielded a large, significant effect size in predicting post-recovery trust in the firm ( $f^2=0.58$ ), and a small effect size in predicting post-recovery trust in the employee ( $f^2=0.10$ ). The reader is reminded that effect size values of 0.02, 0.15 and 0.35 indicate small, medium and large effects, respectively (Cohen, 1988). In car repair, the inclusion of the moderator yielded medium to large effect size in predicting post-recovery trust in the firm and in the employee ( $f^2=0.31$  and  $f^2=0.18$ ). As expected, R-square values for commitment and loyalty did not increase because of the inclusion of firm reputation for fairness. The above findings confirm the relevance of firm reputation for fairness as a moderator in the relationships between types of perceived justice and post-recovery trust.

In order to assess the significance of the main and interaction effects, bootstrapping procedure set at 1,000 subsamples and at 5% level of significance was conducted. As illustrated in Table E3.19, the direct relationship between distributive justice and customer post-recovery trust in the firm was not significant. However, results from the moderation analysis revealed that the effect of distributive justice on customer post-recovery trust in the firm is contingent upon firm reputation for fairness. A significant and negative interaction effect was found, in both service contexts. As explained by Hair *et al.* (2014), the main effects in the path model (such as the path linking distributive justice and post-recovery trust in the firm) become 'simple effects' when the moderator is considered. Simple effects indicate the *strength* of the relationship between the exogenous and the endogenous variable, when the moderator has a value of zero. In this thesis, zero is not an existing value on the scale of firm reputation for fairness and inferred. The moderators are, therefore, mean-centered. When using the mean-centered approach, the simple effects indicate the strength of the relationship between exogenous and the endogenous variable, when the moderator has the mean value (Hair *et al.*, 2014).

**Table E3.19** Path coefficients and t-values

Structural paths	Banking		Car Repair	
	Model A Path(t-value)	Model B Path(t-value)	Model A Path(t-value)	Model B Path(t-value)
DJ -> TRU_FIRM	0.099(1.41)	0.114(2.16)**	0.101(1.25)ns	0.141(2.16)**
PJ -> TRU_FIRM	0.334(5.43)***	0.259(4.96)***	0.334(4.54)***	0.277(4.06)***
ITJ -> TRU_EMPL	0.630(10.09)***	0.620(10.85)***	0.731(16.76)***	0.689(15.76)***
IFJ -> TRU_EMPL	0.234(3.24)***	0.202(3.08)***	0.136(2.52)**	0.124(2.43)**
TRU_EMPL -> TRU_FIRM	0.393(6.49)***	0.304(6.02)***	0.435(6.61)***	0.319(4.87)***
TRU_FIRM -> COMMIT	0.405(7.41)***	0.410(7.78)***	0.205(4.58)***	0.205(4.50)***
TRU_FIRM -> LOY	0.444(8.17)***	0.446(8.31)***	0.185(4.25)***	0.187(4.39)***
TRU_EMPL -> COMMIT	0.561(10.07)***	0.555(10.58)***	0.747(18.31)***	0.747(17.96)***
TRU_EMPL -> LOY	0.493(8.80)***	0.491(9.05)***	0.719(16.32)***	0.718(17.23)***
FRF * DJ -> TRU_FIRM		-0.026(2.50)**		-0.015(1.70)*
FRF * PJ -> TRU_FIRM		-0.018(1.72)*		-0.017(2.16)**
FRF * ITJ -> TRU_EMPL		0.014(1.59)		0.015(1.86)*
FRF * IFJ -> TRU_EMPL		0.018(1.58)		0.010(1.12)

Note: FRF=Firm Reputation for Fairness; \*  $p < .10$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$

In banking, the relationship between distributive justice and post-recovery trust in the firm has a value of 0.114 when firm reputation for fairness equals to the mean value. The negative sign of the interaction term indicates that the same relationship decreases by the size of the interaction term (i.e. 0.026) and reaches a value of 0.088 (i.e. 0.114-0.026), as reputation for fairness increases by one standard deviation point. In car repair, the relationship between distributive justice and post-recovery trust in the

firm decreases by 0.015 and reaches a value of 0.126, as reputation for fairness increases by one standard deviation point (i.e. 0.141-0.015).

Simple Slope Plots presented in Figure E3.5 graphically illustrate the nature of the interaction effect between distributive justice and firm reputation for fairness. Figure E3.5 plots the relationship between distributive justice and post-recovery trust in the firm at three levels of firm reputation for fairness (FRF):

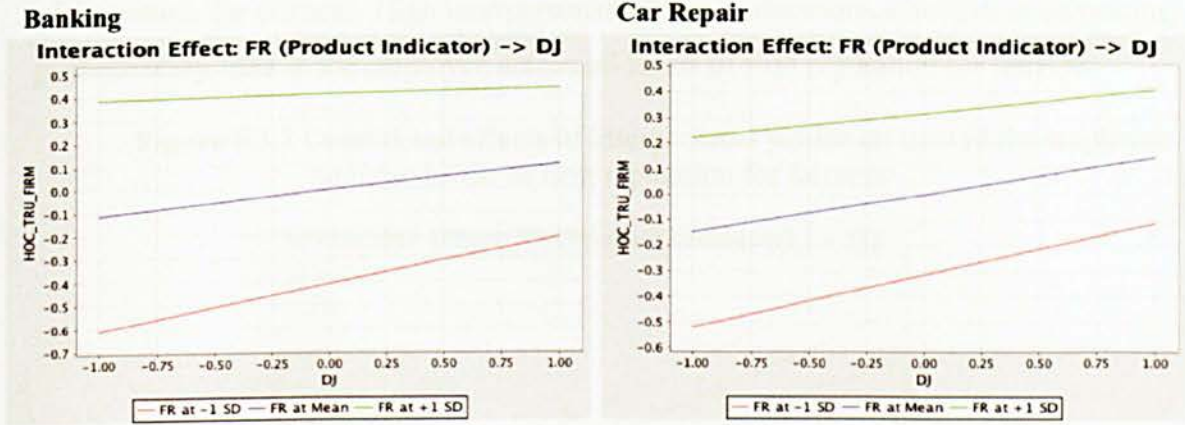
- (1) mean value of FRF minus one standard deviation or 'low' (red line),
- (2) mean value of FRF or 'average' (blue line), and
- (3) mean value of FRF plus one standard deviation or 'high' (green line).

In both banking and car repair contexts, the plot indicates that under conditions of high or medium reputation for fairness, there is less of a steep slope, than in conditions of low reputation for fairness. This suggests that distributive justice elicited by guarantee payout has greater influence on customer post-recovery trust in the firm in conditions of low firm reputation for fairness, than in conditions of high firm reputation for fairness. In particular, low reputation for fairness elevates post-recovery trust in the firm given high distributive justice (see right hand side of the plot where distributive justice values are above 0). The above explanation is consistent with the negative sign of the interaction term (see Table E3.19). As discussed earlier, the negative interaction term indicates that the effect of distributive justice in predicting post-recovery trust in the firm diminishes as firm reputation for fairness increases.

In car repair, the plot indicates that the effect of distributive justice on post-recovery trust in the firm does not remain constant when firm reputation for fairness is high (the slope of the green line is steeper than the one in the banking context). Distributive justice exerts similar effects on post-recovery trust in the firm, regardless of the firm's reputation for fairness. This is in line with empirical findings showing that, in car repair, the moderating effect of firm reputation for fairness is significant at a significance level of 10% (see Table E3.19). The above explanation holds for procedural justice. The interaction term (firm reputation\*procedural justice) is significant and negative in both banking and car repair contexts. In banking, results show that the relationship between procedural justice and post-recovery trust in the firm reaches the value of 0.241 (i.e. 0.259-0.018), as reputation increases by one standard deviation. In car repair, the relationship between procedural justice and post-recovery trust in the firm decreases and reaches the value of 0.260 (i.e. 0.277-0.017), as reputation for fairness increases by one standard deviation point. In both contexts,

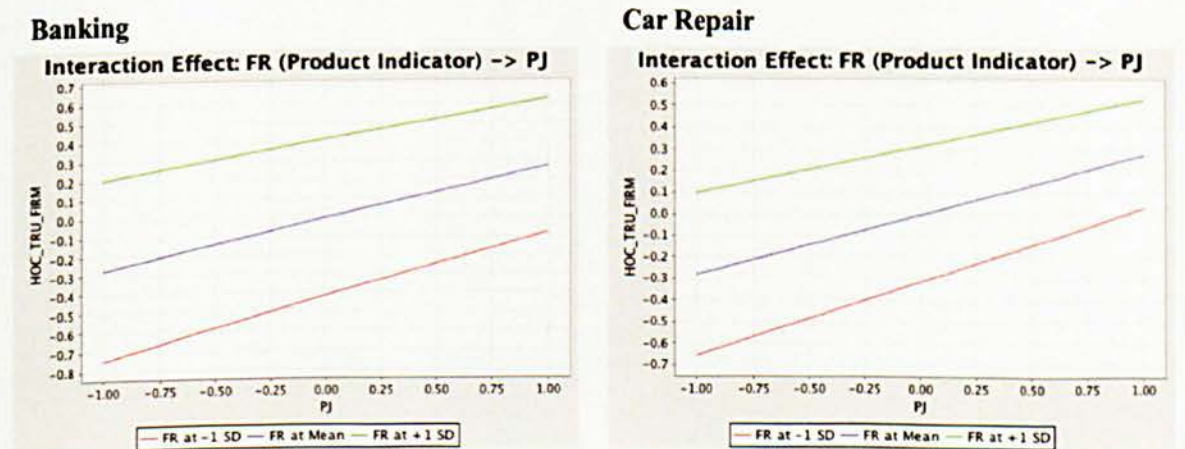
procedural justice elicited by the ease of invoking the guarantee becomes less important in explaining post-recovery trust in the firm, as firm reputation for fairness increases.

**Figure E3.5** Conditional effects of distributive justice on trust in the firm at three levels of firm reputation for fairness



The plots in Figure E3.6 show that under conditions of high or medium reputation for fairness, there is less of a steep slope, than in conditions of low reputation for fairness. This suggests that procedural justice elicited by the ease of invoking the guarantee has greater influence on customer post-recovery trust in the firm in conditions of low firm reputation for fairness, than in conditions of high reputation for fairness. In particular, low reputation for fairness elevates post-recovery trust in the firm, given *high* procedural justice. The above indicates that delivering high procedural justice is effective at enhancing post-recovery trust in the firm when firm reputation for fairness is low, not high.

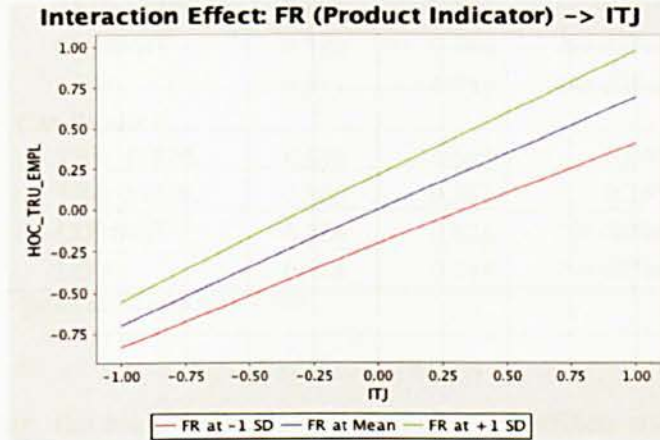
**E3.6** Conditional effects of procedural justice on trust in the firm at three levels of firm reputation for fairness



In car repair, firm reputation for fairness showed a significant, positive interaction effect with interpersonal justice in explaining post-recovery trust in the

employee ( $p < .10$ ). The positive interaction term indicates that the relationship between interpersonal justice and post-recovery trust in the employee increases and reaches the value of 0.634 (i.e.  $0.620 + 0.014$ ), as reputation for fairness increases by one standard deviation point. The slope of the lines in Figure E3.7 is steep under all three conditions of reputation for fairness. High interpersonal justice is, therefore, effective at enhancing post-recovery trust in the employee across all levels of firm reputation for fairness.

**Figure E3.7** Conditional effects of interpersonal justice on trust in the employee at three levels of firm reputation for fairness





### E3.5.6 Moderating Effect of Inferred Motive

As discussed in Section E3.5.4, the moderating effect of inferred motive was tested by means of the product indicator approach in PLS-SEM. The results from the analysis of moderation are summarised in Table E3.20.

**Table E3.20** R-square values and effect size

Constructs	R <sup>2</sup> Model A	R <sup>2</sup> Model B	f <sup>2</sup>
<i>Banking</i>			
TRU_FIRM	0.541	0.565	0.06*
TRU_EMPL	0.682	0.758	0.31*
COMMIT	0.780	0.780	No difference
LOY	0.731	0.731	No difference
<i>Car Repair</i>			
TRU_FIRM	0.630	0.645	0.04*
TRU_EMPL	0.700	0.763	0.26*
COMMIT	0.826	0.826	No difference
LOY	0.748	0.748	No difference

*p* < .05 based on pseudo F-test

In banking, the main effects and the interaction effects models (Models A and B) reported R-square values ranging between 0.54 and 0.78. In car repair, the R-square value for commitment reached 0.83. The model's accuracy in predicting post-recovery trust in the firm and in the employee increased when inferred motive was considered. In both service contexts, the inclusion of inferred motive yielded a small, yet significant, effect size in predicting post-recovery trust in the firm (banking,  $f^2=0.06$ ; car repair,  $f^2=0.04$ ), and a large and significant effect size in predicting post-recovery trust in the employee (banking,  $f^2=0.31$ ; car repair,  $f^2=0.26$ ). The above findings indicate the relevance of inferred motive as a moderator.

In order to check for the significance of main and interaction effects, bootstrapping procedure set at 1,000 subsamples and at 5% level of significance was carried out. The results from bootstrapping are summarised in Table E3.21 below. As expected, all direct relationships were significant and in the hypothesised direction, with the exception of the relationship between distributive justice and post-recovery trust in the firm.

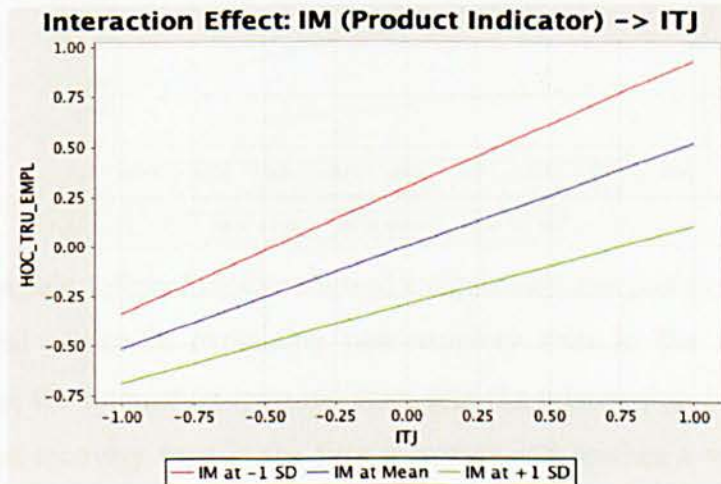
**Table E3.21** Path coefficients and t-values

Structural paths	Banking		Car Repair	
	Model A Path(t-value)	Model B Path(t-value)	Model A Path(t-value)	Model B Path(t-value)
DJ -> TRU_FIRM	0.100(1.44)	0.098(1.60)	0.101(1.25)	0.086(1.32)
PJ -> TRU_FIRM	0.333(5.26)***	0.317(5.11)***	0.334(4.54)***	0.295(3.84)***
ITJ -> TRU_EMPL	0.633(10.17)***	0.501(8.08)***	0.731(16.76)***	0.580(12.59)***
IFJ -> TRU_EMPL	0.228(3.31)***	0.206(3.26)***	0.136(2.52)**	0.084(1.45)
TRU_EMPL -> TRU_FIRM	0.394(6.27)***	0.318(4.27)***	0.435(6.61)***	0.415(6.18)***
TRU_FIRM -> COMMIT	0.406(7.81)***	0.406(7.76)***	0.205(4.58)***	0.209(4.69)***
TRU_FIRM -> LOY	0.444(8.28)***	0.445(8.22)***	0.185(4.25)***	0.191(3.99)***
TRU_EMPL -> COMMIT	0.559(10.52)***	0.560(10.43)***	0.747(18.31)***	0.743(18.10)***
TRU_EMPL -> LOY	0.493(9.01)***	0.492(8.99)***	0.719(16.32)***	0.714(15.17)***
IM * DJ -> TRU_FIRM		-0.030(1.12)		0.022(1.23)
IM * PJ -> TRU_FIRM		-0.011(0.71)		0.031(3.09)***
IM * ITJ -> TRU_EMPL		-0.033(3.13)***		-0.011(0.94)
IM * IFJ -> TRU_EMPL		-0.042(3.90)***		-0.008(0.84)

Note: IM=Inferred Motive; \*  $p < .10$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$

In banking, results showed significant and negative interaction effects between interpersonal and informational justice on post-recovery trust in the employee. In particular, the relationship between interpersonal justice and post-recovery trust in the employee is shown to decrease and to reach the value of 0.468 (i.e.  $0.501 - 0.033$ ), as inferred motive increases by one standard deviation point. Simple Slope Plots in Figure E3.8 below graphically illustrate the nature of the interaction effect between interpersonal justice and inferred motive.

**Figure E3.8** Conditional effects of interpersonal justice on trust in the employee at three levels of inferred motive

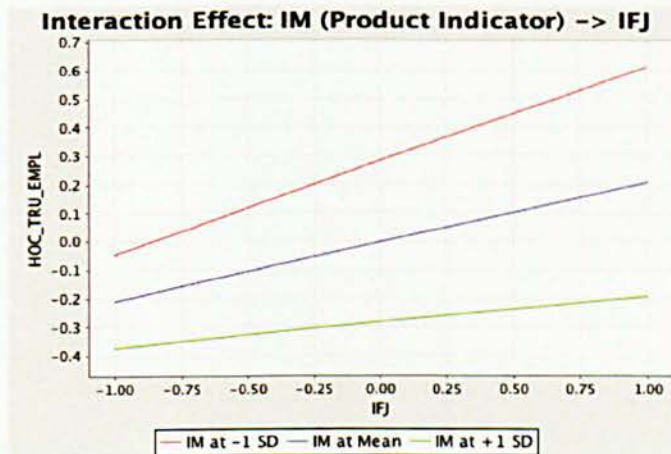


The plot in Figure E3.8 shows that in conditions of high inferred motive, there is less of a steep slope, than in conditions of low inferred motive. This suggests that

interpersonal justice, elicited by employee behaviour at the recovery stage, has greater influence on customer post-recovery trust in the employee in conditions of low inferred motive, than in conditions of high inferred motive. Hence, high interpersonal justice at the recovery stage is most effective at enhancing customer post-recovery trust in the employee, if customers infer less negative motives about the employees' motives.

The relationship between informational justice and post-recovery trust in the employee decreases and reaches a value of 0.163 (i.e.  $0.206 - 0.042$ ), as inferred motive increases by one standard deviation point. The Simple Slope Plot in Figure E3.9 below graphically illustrates the nature of the interaction effect. The plot shows that in conditions of high inferred motive, the slope is relatively flat. This suggests that informational justice, elicited by employee communication at the recovery stage, has greater influence on customer post-recovery trust in the employee in conditions of low inferred motive, than in conditions of high inferred motive. Notably, low inferred motive elevates post-recovery trust in the employee given high informational justice (see right hand side of the plot). Hence, high informational justice at the recovery stage is most effective at enhancing customer post-recovery trust in the employee, if customers infer less negative motives about the employees' motives.

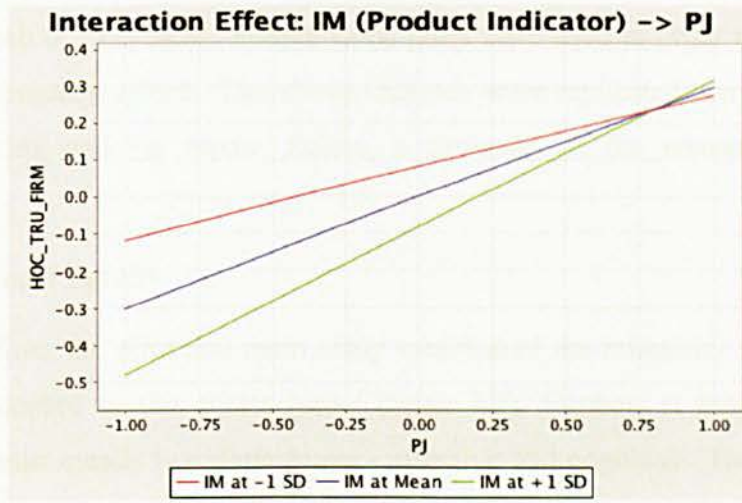
**Figure E3.9** Conditional effects of informational justice on trust in the employee at three levels of inferred motive



In car repair, inferred motive showed a significant and positive interaction effect with procedural justice in explaining post-recovery trust in the firm ( $p < .01$ ). The positive sign of the interaction term indicates that the relationship between procedural justice and post-recovery trust in the firm increases and reaches a value of 0.326 (i.e.  $0.295 + 0.031$ ), as inferred motive increases by one standard deviation point. The Simple Slope Plot in Figure E3.10 graphically illustrates the nature of the interaction effect. The plot shows that, high procedural justice enhances customer post-recovery trust in the

firm, regardless of inferred motive (see right hand side of the plot where procedural justice values are above 0). Notably, the slope for post-recovery trust in the firm is steeper in conditions of high inferred motive, than in conditions of low inferred motive. This indicates that high inferred motive can elevate the effect of high procedural justice on post-recovery trust in the firm. Surprisingly, high procedural justice at the recovery stage enhances post-recovery trust in the firm, even when the customer infers negative motives about the firm's motives.

**Figure E3.10** Conditional effects of procedural justice on trust in the firm at three levels of inferred motive



### E3.6 SUMMARY OF DATA ANALYSIS AND RESULTS

Part E of this thesis presented the statistical analyses and results from two pre-tests, a pilot study and the main study. The reader is reminded that PLS-SEM analytical technique was employed in the pilot study and in the main study. Following best practice guidelines in conducting PLS-SEM (e.g., Chin, 2010), the analysis was carried out in two phases: first, the measurement model was assessed, and second, the structural model was assessed. In phase two, the structural model including the direct effects (main effects model) was compared against the model including moderators (interaction effects model). The effect of moderator variables was tested by using the product indicator approach in PLS-SEM. Simple slope plots were used in order to illustrate the nature of the interaction effects. The above analyses were replicated across two service contexts - banking and car repair. Below, a summary of the research findings is provided.

#### *Measurement Model Results*

Results from the pilot and main study established the reliability and validity of the measures adopted in this thesis (see Chapter E2). Further, at this stage, results confirmed that trust entails two dimensions - affective and cognitive. The constructs of trust in the firm and trust in the employee were, therefore, operationalized as consisting of two sub-dimensions and treated as higher-order constructs (see Section E2.7).

#### *Structural Model Results*

Results from the main study revealed that, in both contexts, all structural paths reached significance and were in the predicted direction. An exception was the relationship between distributive justice and post-recovery trust in the firm, which was not significant (see Table E3.15).

#### *Moderation Analysis Results*

Results from the product-indicator approach revealed that firm reputation for fairness has a negative interaction effect with distributive and procedural justice in shaping customer post-recovery trust in the firm. The above finding held across banking and car repair. Simple slope plots revealed that high distributive and procedural justice elicited by service guarantee terms are most effective at enhancing post-recovery trust in the firm, when firm reputation for fairness is low.

Further, in car repair, findings showed that firm reputation for fairness has a positive interaction effect with interpersonal justice in shaping post-recovery trust in the

employee. In particular, high interpersonal justice at the recovery stage is shown to be effective at enhancing post-recovery trust in the employee, at low, medium or high reputation for fairness.

Results from the product-indicator approach revealed that inferred motive has a negative interaction effect with interpersonal and informational justice in shaping customer post-recovery trust in the employee. The above finding applies to the banking context only. In particular, high interpersonal and informational justice are found to be most effective at enhancing post-recovery trust in the employee when customer inferences of negative motive are low. Further, in car repair, results showed that inferred motive has a positive interaction effect with procedural justice in shaping customer post-recovery trust in the firm. High procedural justice is found to be effective at enhancing post-recovery trust in the firm when customer inferences of negative motives are low. Yet, the above effect lasts up to a turning point, where procedural justice can lead to post-recovery trust in the firm even when inferences of negative motives are high.

Following on Part E, Part F of this thesis includes a discussion of the research findings within the context of the extant literature.

# **PART F**

**Discussion and Conclusions,  
Implications for Theory and  
Practice, Further Research**

**PART F: DISCUSSION AND CONCLUSIONS, IMPLICATIONS FOR THEORY AND PRACTICE, FURTHER RESEARCH**

*OUTLINE OF PART F*

Upon completion of the data analysis, research findings are discussed and conclusions are drawn. As part of the discussion of findings, the research hypotheses are confirmed (or rejected) and results from the research are compared and contrasted with extant knowledge in the field. Conclusions on whether empirical findings contradict or confirm prior theoretical knowledge are drawn. Based on the discussion and conclusions, the contributions of the research to theory and practice are established. Both theoretical contributions and managerial implications are essential when conducting business research, whose purpose is to find novel ways of addressing business problems. Finally, the limitations of the research are presented, along with directions for future research.

Consistent with the above best practice guidelines in conducting business research, Part F presents the findings from the research conducted in this thesis. Based on the findings, meaningful conclusions are drawn. The discussion in Part F establishes how the research objectives set out in Part A of this thesis have been addressed. Based on the discussion and conclusions, the thesis contributions to theory, practice in service management and policy makers are elucidated.

The outline of Part F is as follows:

- **Chapter F1** includes a discussion of the research findings in the light of extant evidence in three literature streams deemed relevant for the research – perceived justice in service recovery, signaling in marketing research and research on customer trust. Meaningful conclusions are also drawn.
- **Chapter F2** builds upon the discussion in Chapter F1 and elucidates the contributions of this thesis to theory.
- **Chapter F3** presents the implications of research findings for practice in service management and policy makers.
- **Chapter F4** includes a discussion of the limitations of this thesis, and corresponding directions for future research.



## CHAPTER F1: DISCUSSION OF FINDINGS

Chapter F1 includes a discussion of the research findings presented in Part E of this thesis. The chapter first recapitulates the objectives of the research conducted in the thesis and set out in Part A. The recap of the research objectives introduces the discussion of findings. Next, the findings are discussed in the light of extant research and of the objectives in this thesis.

### F1.1 RECAP OF RESEARCH OBJECTIVES

As discussed in Parts A and B of this thesis, service recovery research widely acknowledges the importance of employees in delivering fair (just) service recovery. Employees are a main point of contact for customers at the time of lodging a complaint, and they play a crucial role in conveying empathy and in communicating with customers. However, employee efforts in providing compensation and in resolving the service failure are often constrained by organisational policies such as service guarantees. Service guarantees influence the timeliness of recovery, and the size of compensation paid out to customers. Given that customers invoke the guarantee following service failures, this policy is implemented as a recovery strategy and can influence perceptions of fairness. Only two empirical studies have so far examined the role of service guarantees in a recovery context (e.g., McQuilken *et al.*, 2013; Van Vaerenberg *et al.*, 2014). Therefore, the **first objective** of this thesis is to investigate how service guarantees are employed as recovery strategies, and impact customer perceptions of justice.

Prior research on service guarantees suggests that these policies can function as signals of quality (see Chapter B2 of this thesis). In their role of signals, service guarantees are shown to influence customer purchase decisions by providing quality cues (e.g., McDougall *et al.*, 1998; Wirtz *et al.*, 2000; Wu *et al.*, 2012). Extending the above reasoning to a recovery context, this thesis argues that service guarantees implemented as recovery strategies can function as signals of the firm's attributes of trustworthiness. Two widely used service guarantee terms – payout and ease of invocation – are relevant in service recovery. The above two terms provide cues about the firm's trustworthiness, and in turn, influence customer trust and repurchase decisions following service failure and recovery encounters. Further, in recognition of the crucial role played by service employees at the recovery stage, guarantees are examined along with two types of employee behaviour – concern and communication.

Based on the above discussion, the **second objective** of this thesis is to investigate how justice perceptions elicited by service guarantee and employee behaviour at the recovery stage influence customer post-recovery trust (in the firm and in the employee).

Service guarantee and employee behaviour are dual signals at the recovery stage. Such duality is reflected in the conceptualisation of trust. Consistent with prior marketing research (see Chapter B3 in this thesis), customers form differential trust towards two trust referents – the firm and the employee. When evaluating guarantee policies, customers are likely to form perceptions about the firm as a whole. When evaluating employee behaviour, customers are likely to form perceptions about the employee. Based on the above discussion, the **third objective** of this thesis is to examine how customers differentiate between firm and employees when forming trust at the recovery stage.

Furthermore, service recovery research shows that customer responses to service failure and recovery are often influenced by factors external to the recovery encounter, such as firm reputation and causal attributions. Signaling research refers to reputation as a signal of quality (Kirmani and Rao, 2000). Given that service guarantees are often used concurrently with firm reputation signals, customer perceptions of guarantee policies are often contingent upon firm reputation (Wirtz *et al.*, 2000; Wu *et al.*, 2012). In a similar way, customer perceptions of justice towards employee recovery efforts are expected to be contingent upon firm reputation for fairness. Moreover, prior research shows that customer inferences about the firm's motives (i.e. inferred motive) influence perceptions of fairness (Kukar-Kinney *et al.*, 2007). In this thesis, customer perceptions of justice towards service guarantee and employee behaviour employed as recovery strategies are expected to be contingent upon inferences about the firm's and employee's motives. Based on the above discussion, the **fourth objective** of this thesis is to examine how the impact of perceived justice elicited by service guarantee and employee behaviour on post-recovery trust is contingent upon firm reputation for fairness and inferred motive. Given that the research objectives have been recapitulated above, the attention now turns to the research findings.

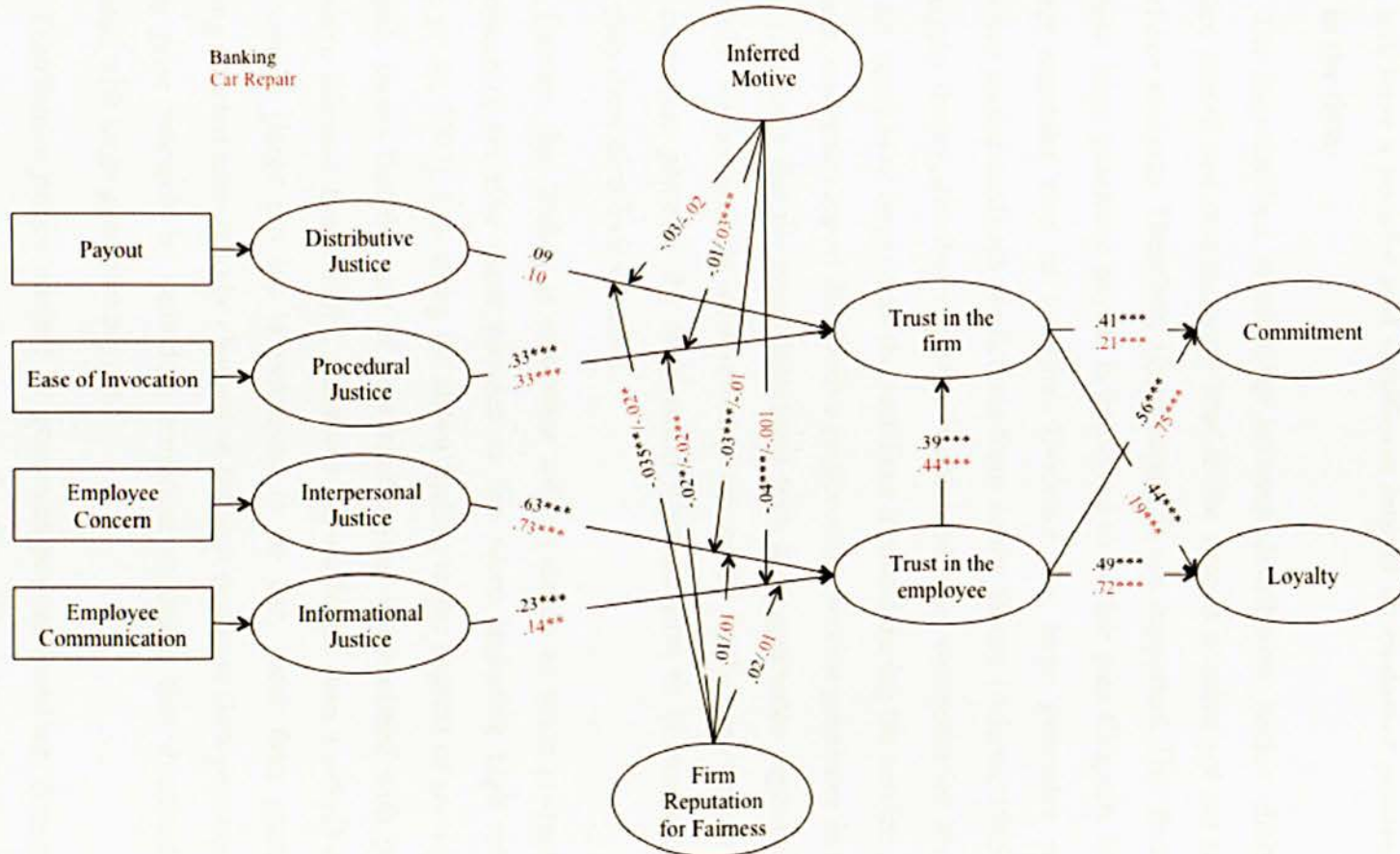
## F1.2 DISCUSSION OF RESEARCH FINDINGS

In this section, the research findings are discussed. The findings are compared and contrasted with extant research, and contributions to knowledge are highlighted. The research hypotheses and related empirical findings are summarised Table F1.1 below and illustrated in Figure F1.1 (see overleaf).

**Table F1.1** Summary of research findings

<b>Research Hypotheses</b>	<b>Banking</b>	<b>Car Repair</b>
<b>H1</b> Distributive justice -> trust in firm	Not supported	Not supported
<b>H2</b> Procedural justice -> trust in firm	Supported	Supported
<b>H3</b> Interpersonal justice -> trust in employee	Supported	Supported
<b>H4</b> Informational justice -> trust in employee	Supported	Supported
<b>H5</b> Post-recovery trust in employee -> trust in firm	Supported	Supported
<b>H6</b> Post-recovery trust in firm -> commitment	Supported	Supported
<b>H7</b> Post-recovery trust in employee -> commitment	Supported	Supported
<b>H8</b> Post-recovery trust in firm -> loyalty	Supported	Supported
<b>H9</b> Post-recovery trust in employee -> loyalty	Supported	Supported
<b>H10</b> Firm reputation * Distributive justice -> trust in firm	Supported	Supported
<b>H11</b> Firm reputation * Procedural justice -> trust in firm	Supported	Supported
<b>H12</b> Firm reputation * Interpersonal justice -> trust in employee	Not supported	Supported
<b>H13</b> Firm reputation * Informational justice -> trust in employee	Not supported	Not supported
<b>H14</b> Inferred motive * Distributive justice -> trust in firm	Not supported	Not supported
<b>H15</b> Inferred motive * Procedural justice -> trust in firm	Not supported	Supported
<b>H16</b> Inferred motive * Interpersonal justice -> trust in employee	Supported	Not supported
<b>H17</b> Inferred motive * Informational justice -> trust in employee	Supported	Not supported

Figure F1.1 Structural model results



### F1.2.1 Distributive Justice and Post-Recovery Trust in the Firm

The relationship between distributive justice, elicited by high guarantee payout, and customer post-recovery trust in the firm was hypothesised as follows:

**H1: Distributive justice elicited by high guarantee payout at the recovery stage will have a positive and significant impact on customer post-recovery trust in the firm.**

The hypothesised relationship between distributive justice elicited by large guarantee payout and post-recovery trust in the firm is positive yet not significant, in both service contexts. Therefore, Hypothesis 1 is not supported. This finding indicates that whilst large guarantee payout is perceived to be fair (see Chapters E1 and E2), it does not engender trust in the firm. Evidence that large guarantee payout elicits distributive justice confirms predictions from equity theory (Adams, 1965). According to the equity theory, distributive justice is obtained when compensation results in gains, which are equal to or larger than the sacrifices incurred during the service encounter. In this thesis, customers report distributive justice when service guarantee includes a large payout. It follows that the gains associated with large guarantee payout can offset the costs of the service and the inconvenience caused by the failure (i.e. sacrifices). As a result, customers perceive the relationship with the firm to be restored at equitable levels, thus show distributive justice.

Further, this finding is consistent with evidence on price guarantees showing that customers perceive these policies as fair when including high refund (Kukarkinney *et al.*, 2007). Extending the above finding to the context of *service* guarantees, this thesis shows that the size of guarantee payout is associated with perceptions of distributive fairness. Specifically, guarantee payout larger than a refund of the cost of failed service (large payout) is perceived to be fair, more than guarantee payout including a forfeit amount to be claimed on the next purchase (low payout). This finding extends prior research by providing empirical evidence that distributive justice is associated with large guarantee payout.

Distributive justice elicited by guarantee payout, however, does not positively influence customer post-recovery trust in the firm. The above finding indicates that fairness of this guarantee term does not engender confidence in the firm. This finding contrasts with previous assertions in signaling literature that signals are effective when including high cost on the part of the signaler (McDougall *et al.*, 1998). According to Signaling Theory, signals are evaluated on the basis of the costs the signaler (i.e. the

firm) would incur in using false signaling (Connelly *et al.*, 2011). Signals are credible cues of the attributes of the signaler when the costs of conveying false information (i.e. the firm does not hold those attributes) are high enough to prevent the signaler from engaging in false signaling. In service guarantee policies, the size of guarantee payout denotes the cost of signaling incurred by the firm (i.e. signaler). Hence, high guarantee payout indicates that the firm incurs a large cost in compensating the customer for the service failure. Due to the large costs, the firm is expected to be seen as unwilling to engage in false signaling, thus to behave in an untrustworthy manner. In this sense, guarantee payout is a credible signal that the firm can be trusted. Findings in both banking and car repair contexts diverge from the above contention.

The lack of significant relationship between distributive justice and post-recovery trust in the firm is explained as follows. Firstly, other aspects of the service guarantee policy could be more relevant than payout in shaping customer post-recovery trust in the firm. As discussed in Section E3.5.2, procedural justice shows a positive and significant effect on post-recovery trust in the firm ( $p < .01$ ), and a significant effect size. Procedural justice may 'overshadow' distributive justice in shaping post-recovery trust in the firm. This effect of procedural justice is known in the literature on fairness heuristics as the 'fair process effect' (van den Bos, 2001). Under the fair process effect, procedural aspects of a social exchange are particularly relevant, especially when compensation is perceived to be unimportant. Under this effect, customers tolerate unsatisfactory compensation, if fair processes are followed (e.g., Collie, Bradley and Sparks, 2002; Worsfold, Worsfold and Bradley, 2007).

Following the above logic and consistent with the fair process effect (van den Bos, 2001), respondents in the present study might have perceived guarantee payout as unimportant or unsatisfactory and they shifted their attention to the fairness of recovery procedures in forming trust (see further discussion in Section F1.2.2). The above explanation is pertinent to the service contexts being investigated. In banking and car repair, customers often lack knowledge and understanding of the competencies required during service recovery encounters. Hence, customers may find difficult to determine the cost the firm would incur by behaving in an untrustworthy manner (i.e. signaling cost). Consequently, customers rely on perceived fairness of the process in order to decide whether to trust the firm.

Secondly, the type of service failure depicted in the hypothetical scenarios might have influenced respondents' answers. Smith *et al.* (1999) distinguish between two

types of service failure, namely outcome and process failures. Examples include an overcooked steak (outcome failure) and undue employee preference to other customers (process failure). Extant research suggests that customers report differential responses to service recovery, depending on whether a process or outcome service failure is encountered. For instance, in a meta-analysis of studies in service failure and recovery, Roschk and Gelbrich (2014) note that immediate monetary compensation is a preferred organisational response to outcome failures, rather than process failures. Apology, on the other hand, is a preferred organisational response to process failures.

In this thesis, the hypothetical scenarios depicted process failures, whereby the customer claimed service guarantee following a delay in opening a new bank account (banking) and a failed car repair (car repair). Similar service failures cause a monetary loss to the customer. Hence guarantee payout and related perceptions of distributive justice were investigated. Notwithstanding, respondents might have paid greater attention to the procedural aspects of service recovery. Consequently, procedural justice as opposed to distributive justice is found to influence post-recovery trust in the firm. Thirdly, the effect of distributive justice on customer post-recovery trust in the firm is contingent upon other intervening factors, such as firm reputation for fairness. A detailed discussion of findings related to firm reputation for fairness follows in Section F1.2.8.

**F1.2.2 Procedural Justice and Post-Recovery Trust in the Firm**

The relationship between procedural justice, elicited by easy processes of invoking the guarantee, and customer post-recovery trust in the firm was hypothesised as follows:

**H2: Procedural justice elicited by the ease of invoking the guarantee at the recovery stage will have a positive and significant impact on customer post-recovery trust in the firm.**

The hypothesised relationship between procedural justice elicited by ease of invocation and post-recovery trust in the firm is positive and significant, in both banking and car repair contexts. Therefore, Hypothesis 2 is supported. This finding indicates that easy-to-invoke guarantee policies are perceived to be fair (see Chapters E1 and E2) and these engender customer trust in the firm. Evidence that the ease of invoking the guarantee elicits procedural justice is in line with past research showing that timely employee-initiated recovery efforts are perceived to be fair (e.g., Chebat and Slusarczyk, 2005; DeWitt *et al.*, 2008; Kim *et al.*, 2009). This finding extends past research by providing evidence that less complex processes of invoking the guarantee are perceived as timely, thus fair.

The above evidence confirms predictions from the theory of procedural justice (Thibaut and Walker, 1975). According to this theory, procedural justice is obtained when processes are timely and lead to perceived control over decisions. In the present study, customers find guarantee policies that include few terms and efficient invocation processes as timely, thus show procedural justice. The finding also contributes to research on service guarantees. As pointed out by Meyer *et al.* (2014), ease of invocation is a necessary, yet surprisingly overlooked design element of service guarantees. Beyond answering the above call for further research, this finding provides empirical support for earlier contentions that guarantees are most meaningful when easy-to-invoke (Hart, 1988). Specifically, guarantee policies invoked with no questions asked (high ease) are perceived to be fair, more than guarantees invoked by providing a detailed account of the claim (low ease).

Furthermore, this thesis shows that procedural justice elicited by ease of invocation positively influences customer post-recovery trust in the firm. This finding indicates that fairness of this guarantee term engenders customer confidence in the firm. The finding is in line with predictions from signaling research. According to signaling research, easy-to-invoke guarantees signify that the firm welcomes customer complaints



and trusts the customer will not engage in opportunistic claiming (e.g., Hart *et al.*, 1992; Wirtz and Kum, 2004). In a similar way, the ease of invoking the guarantee during recovery encounters is a signal that the firm can be trusted, and it is committed to handling service failures. Through signaling firm's trust, customer uncertainty related to the decision to show repatronage lowers whereas customer trust in the firm increases.

Finally, a comparison of the research findings related to Hypotheses 1 and 2 reveals interesting insights. Specifically, the findings show that procedural justice elicited by service guarantee policies during recovery encounters is essential to shaping customer trust judgments (see also effect size in Chapter E3). However, distributive justice is not. Extant research on service failure and recovery shows that procedural and interactional justice rendered during service recovery are more important than distributive justice in shaping customer satisfaction (e.g., Maxham and Netemeyer, 2002). This thesis adds to extant research by examining trust as customer outcome, and by showing that procedural justice elicited by guarantee policies is a precursor of customer post-recovery trust, but distributive justice elicited by guarantee payout is not.

### F1.2.3 Interpersonal Justice and Post-Recovery Trust in the Employee

The relationship between interpersonal justice, elicited by employee concern, empathy and effort in resolving the failure, and customer post-recovery trust in the employee was hypothesised as follows:

**H3: Interpersonal justice elicited by the interpersonal treatment shown by employees at the recovery stage will have a positive and significant impact on customer post-recovery trust in the employee.**

The hypothesised relationship between interpersonal justice elicited by interpersonal treatment and post-recovery trust in the employee is positive and significant, in both banking and car repair contexts. Therefore, Hypothesis 3 is supported. This finding indicates that interpersonal treatment at the recovery stage, whereby the employee shows concern, empathy and effort in resolving the failure, is perceived to be fair (see Chapters E1 and E2). This finding confirms predictions from the theory of interactional fairness (Bies and Moag, 1986). According to this theory, interpersonal justice is obtained when interpersonal treatment meets individuals' need for self-esteem. In service recovery encounters, employees who show concern, effort in resolving the failure and empathy towards the customer boost customer self-esteem. As a result, customers perceive to be treated fairly, thus show interpersonal justice.

Further, interpersonal justice elicited by employee behaviour during service recovery encounters shows a positive influence on customer trust in the employee. This indicates that fair interpersonal treatment during service recovery encounters engenders customer confidence in the employee. This finding reiterates findings from past service failure recovery research showing that interactional justice, and interpersonal justice in particular, leads to customer post-recovery satisfaction (e.g., Tax *et al.*, 1998; Maxham and Netemeyer, 2002). This thesis adds to the above evidence by demonstrating that interpersonal justice conveyed by employee behaviour during recovery encounters shapes customer trust in the employee.

This finding is consistent with predictions from signaling research. According to signaling research, firms that make investments in intangible assets, such as ambience, and tangible assets, such as new machinery, signal positive intentions and nonopportunistic behaviour (San Martín and Camarero, 2005). Such investments are credible signals as these entail high costs on the part of the firm. Due to high costs, the firm would not be willing to engage in false signaling. This is in line with the logic from

Signaling Theory that signals are evaluated on the basis of the costs the signaler (i.e. the employee) would incur by behaving in an untrustworthy manner (Connelly *et al.*, 2011).

Similar to investments in ambience, employees are intangible assets of service firms. Investments in employee training can therefore signal positive intentions and employee competence in handling service failures. Fair interpersonal treatment during service recovery encounters signals that employees are trained to handle service failures, thus they have competence and commitment to handling service failures in the future. In fact, the research findings indicate that customers interpret fair interpersonal treatment as a signal of employee competence and nonopportunistic behaviour. Through signaling, customer uncertainty related to the decision to revisit the firm lowers and customer trust in the employee increases. Finally, this finding is in line with evidence from industrial marketing research showing that a vendor's investments in maintaining the relationship with the buyer signal that the vendor cares about the relationship with the buyer. In response, the buyer is likely to trust the vendor's organisation (e.g., Doney and Cannon, 1997).

### **F1.2.4 Informational Justice and Post-Recovery Trust in the Employee**

The relationship between informational justice, elicited by employee communication during service recovery, and customer post-recovery trust in the employee was hypothesised as follows:

**H4: Informational justice elicited by adequate employee communication at the recovery stage will have a positive and significant impact on customer post-recovery trust in the employee.**

The hypothesised relationship between informational justice elicited by employee communication and post-recovery trust in the employee is positive and significant, in both banking and car repair contexts. Therefore, Hypothesis 4 is supported. This finding indicates that communication at the recovery stage, whereby a reason for the service failure is given, is perceived to be fair (see Chapters E1 and E2). This evidence corroborates past research showing that providing an explanation for the service failure leads to informational justice (Mattila, 2006). The finding is consistent with interactional fairness theory (Bies and Moag, 1986). According to this theory, employee communication is perceived to be fair when meeting individuals' needs to assign responsibility for negative events. In the present study, employee explanation about the service failure meets customer needs to blame the firm for this event. Hence, customers report informational justice perceptions.

Furthermore, informational justice elicited by employee communication at the recovery positively influences customer trust in the employee. This indicates that fair communication during service recovery encounters engenders customer confidence in the employee. This finding echoes evidence from industrial marketing research showing that communication between buyers and sellers builds trust in the ability of the two parties to resolve conflict situations (e.g., Morgan and Hunt, 1994). The above finding can be explained through the lens of the signaling framework. Based on signaling research, employee social cues in retail environments signal service quality, time and effort costs, as well as merchandise quality (e.g., Grewal *et al.*, 2003; Brocato, Voorhees and Baker, 2012). Similarly, the quality of customer-employee interaction during service experiences is a signal of good quality service offering (Jha *et al.*, 2013). In a similar way, employee communication at the recovery stage signal that employees are honest and care about the customer, and they are willing to take responsibility for the service failure. These signals are credible as behaving in an untrustworthy manner

can be costly to employees (i.e. employees may lose their job) (Connelly *et al.*, 2011). Customers therefore show trust in return.

Finally, a comparison of the research findings related to Hypotheses 3 and 4 suggests that interpersonal justice elicited by employee behaviour at the recovery stage is essential to shaping customer trust, more than informational justice. This is evidenced by the large and significant effect size registered for interpersonal fairness (see Chapter E3). From a signaling perspective, employee interpersonal treatment seems to be particularly effective at lowering customer uncertainty related to the decision to revisit the firm by signaling employee competence and good intentions. Inferred motive also contributes to explaining the effects of interpersonal and informational justice on post-recovery trust in the employee. A detailed discussion of findings related to inferred motive follows in Section F1.2.9.

### **F1.2.5 Relationship between Two Types of Trust**

The relationship between the two types of trust, namely post-recovery trust in the firm and post-recovery trust in the employee, was hypothesised as follows:

**H5: Customer post-recovery trust in the employee will have a positive and significant impact on customer post-recovery trust in the firm.**

The hypothesised relationship between post-recovery trust in the employee and post-recovery trust in the firm is positive and significant, in both banking and car repair contexts. Therefore, Hypothesis 5 is supported. As expected, customer post-recovery trust in the employee shows a positive and significant impact on post-recovery trust in the firm. This finding is consistent with in business-to-business marketing research showing that trust in the salesperson transfers to trust in the vendor's firm (e.g., Doney and Cannon, 1997). Similarly, in the context of customer-firm exchanges, customer trust in frontline service employees is found to transfer to trust in management and organisational policies (e.g. Sirdeshmukh *et al.*, 2002). The authors attribute the direction of the transference process, from trust in the employee to trust in the firm, to the frequency of interactions between customers and employees during service encounters. Service employees are the main point of contact for customers. Hence, customers often infer the trustworthiness of employees from their interactions with them.

Extant research has examined the transference process between the two facets of trust in the context of satisfactory service encounters (e.g., Sirdeshmukh *et al.*, 2002). This thesis extends existing research by showing that this transference process also occurs in the context of service failure and recovery encounters. From a signaling perspective, this finding indicates that customers interpret employee behaviour as a signal that the firm, as a whole, can also be trusted. This means that by fostering trust in the employee, trust in the firm can also be altered.

### **F1.2.6 Post-Recovery Trust and Commitment**

The relationships between the two types of trust, namely post-recovery trust in the firm and post-recovery trust in the employee, and commitment were hypothesised as follows:

**H6: Following service recovery, customer trust in the firm will have a positive and significant impact on affective commitment.**

**H7: Following service recovery, customer trust in the employee will have a positive and significant impact on affective commitment**

The hypothesised relationships between, (1) post-recovery trust in the firm and commitment, and (2) post-recovery trust in the employee and commitment, are positive and significant, in both banking and car repair contexts. Therefore, Hypotheses 6 and 7 are supported. As hypothesised, customer post-recovery trust in the firm and in the employee positively influence commitment. As discussed in Part C of this thesis, the distinction between affective, behavioural and normative commitment is well-grounded in the literature (e.g., Porter *et al.*, 1874; Allen and Meyer, 1990). This thesis examined *affective* commitment in particular, namely customer feelings of attachment to the firm.

Extant research shows significant correlations between customer trust and commitment in the context of business-to-business relationships (e.g., Ganesan, 1994; Morgan and Hunt, 1994; Ganesan and Hess, 1997), and customer-firm relationships (e.g., Garbarino and Johnson, 1999; Bansal *et al.*, 2004). Based on the above evidence, trust lowers customer perceived risk related to the firm's opportunistic behaviour and thus fosters customer feelings of attachment to the firm. Findings from this thesis are in line with the above evidence. In particular, this thesis contributes to extant research by empirically demonstrating that customer trust positively influences affective commitment in the context of service failure and recovery encounters. Both types of trust, namely trust in the firm and trust in the employee, are found to shape customer affective commitment at the recovery stage. The above evidence suggests that in a recovery situation, trust in the firm's and employees' capabilities and intentions to handle service failures fosters customer emotional attachment to the firm.

The result finds theoretical explanation in signaling research. Signaling research shows that firms' signals can influence customer purchase decisions, by means of fostering trust in the firm (San Martín and Camarero, 2005). Trust fostered through signaling lowers customer uncertainty related to the purchase decision and consequently

encourages customers to select the signaling firm. In a similar way, signaling through service guarantee and employee behaviour at the recovery stage fosters customer trust, as evidenced by empirical findings (see discussion in Sections F1.2.1-F1.2.4). Trust lowers customer perceived risk related to the decision to repurchase from the same firm but increases commitment to the firm.

Further, a comparison of the research findings related to Hypotheses 6 and 7 suggests that post-recovery trust in the employee is important in predicting affective commitment, more than post-recovery trust in the firm. This is evidenced by the large and significant effect size registered for post-recovery trust in the employee (see Tables E3.14-E3.15). The above indicates that, at the recovery stage, customer emotional attachment to the firm is mainly driven by trust in the employee. To explain the effect of post-recovery trust in the firm, this variable was empirically assessed as a mediator between post-recovery trust in the employee and affective commitment. In both service contexts, results revealed a mediating effect of post-recovery trust in the firm in the relationship between post-recovery trust in the employee and affective commitment ( $p < .01$ ). Post-recovery trust in the employee therefore shapes affective commitment directly, as well as indirectly through post-recovery trust in the firm. This means that post-recovery trust in the firm is indeed important for predicting affective commitment.



### **F1.2.7 Post-Recovery Trust and Loyalty**

The relationships between the two types of trust, namely post-recovery trust in the firm and in the employee, and loyalty were hypothesised as follows:

**H8: Following service recovery, customer trust in the firm will have a positive and significant impact on loyalty.**

**H9: Following service recovery, customer trust in the employee will have a positive and significant impact on loyalty.**

The hypothesised relationships between, (1) post-recovery trust in the firm and loyalty, and (2) post-recovery trust in the employee and loyalty, are positive and significant, in both banking and car repair contexts. Therefore, Hypotheses 8 and 9 are supported. As expected, customer post-recovery trust in the firm and in the employee positively influences loyalty. As discussed in Part C of this thesis, the literature distinguishes between two main types of loyalty, namely attitudinal and behavioural. This thesis examined *behavioural* loyalty in the form of customer intentions to revisit the firm and to generate positive word of mouth (PWOM).

Extant research shows a positive relationship between customer trust and loyalty (e.g., Morgan and Hunt, 1994; Doney and Cannon, 1997; Ganesan and Hess, 1997; Garbarino and Johnson, 1999). This relationship holds when multiple referents or components of trust are considered (Sirdeshmukh *et al.*, 2002). Findings from this thesis are consistent with the above evidence. Remarkably, this thesis adds to existing research by showing that, at the recovery stage, customer trust in the firm and in the employee positively influences repatronage and PWOM intent. Hence, trust built at the recovery stage enhances customer willingness to show continued patronage and to recommend the firm.

The above findings can be explained through the lens of Signaling Theory. Signaling entails the process whereby a signaler (i.e. the firm) sends signals to the market (i.e. customers) in an effort to influence decisions. In response, the market can send feedback to the signaler in the form of countersignals (Connelly *et al.*, 2011). Countersignals indicate whether signaling is effective. For instance, customer decision to select the signaling firm instead of competitors is a countersignal. By analogy, in this thesis, customer trust can represent a first countersignal indicating that signaling through service guarantee and employee behaviour has been effective. Customer loyalty can be considered as a second countersignal. This indicates that signaling has influenced

customer repurchase decisions (measured by proxies, i.e. intentions), through the effect of trust. Post-recovery trust, in this context, lowers customer uncertainty related to repurchase decisions, thereby ultimately encouraging repatronage and recommendation. This is in line with Wirtz *et al.* (2000) who suggest that trust in the relationship partner reduces uncertainty and provides a good reason to preserve the relationship. The trust-loyalty link is especially pertinent to credence services, such as banking and car repair. Given that credence services are difficult to evaluate before and even after consumption, customers rely upon trust to decide whether to revisit the firm or not (e.g., Mortimer and Pressey, 2013).

Finally, a comparison of the research findings related to Hypotheses 8 and 9 reveals interesting insights. Post-recovery trust in the employee is important in predicting behavioural loyalty, more than post-recovery trust in the firm. This is evidenced by the large effect size registered for post-recovery trust in the employee (see Tables E3.14 and E3.15). The smaller effect size for post-recovery trust in the firm could be attributed to some of the characteristics of the service contexts being investigated. Consumers might be less willing to trust banks as institutions, than the employees working at banks. This is especially the case in the current economic climate, where banks are blamed for causing economic recession (see further discussion in Part A of this thesis). As a result, cues about employees' attributes and intentions may be more credible, thus trusted more easily, than cues about firms' attributes and intentions. Accordingly, loyalty is driven by trust in the employee more than trust in the firm. A similar pattern emerges in the car repair service context. This can be explained by customer knowledge of car repair services. In this context, consumers often rely upon their trust in the expertise and benevolence of employees at the car workshop when deciding whether to show repatronage. It follows that customer trust in the employees working at the workshop is a precursor of loyalty, more than trust in the car repair company.

**F1.2.8 Moderating Effect of Firm Reputation for Fairness**

This section includes a discussion of the findings related to the moderating effect of firm reputation for fairness in the relationships between distributive, procedural, interpersonal and informational justice and the two types of post-recovery trust, namely trust in the firm and trust in the employee. The moderating effect of firm reputation for fairness was hypothesised as follows:

- H10: Firm reputation for fairness will moderate the relationship between distributive justice elicited by high guarantee payout and customer post-recovery trust in the firm, such that the effect of distributive justice will be weaker (stronger) for customers who perceive the firm reputation for fairness to be good (poor).**
- H11: Firm reputation for fairness will moderate the relationship between procedural justice elicited by the ease of invoking the guarantee and customer post-recovery trust in the firm, such that the effect of procedural justice will be weaker (stronger) for customers who perceive the firm reputation to be good (poor).**
- H12: Firm reputation for fairness will moderate the relationship between interpersonal justice and customer post-recovery trust in the employee, such that the effect of interpersonal justice will be weaker (stronger) for customers who perceive the firm reputation to be good (poor).**
- H13: Firm reputation for fairness will moderate the relationship between informational justice and customer post-recovery trust in the employee, such that the effect of informational justice will be weaker (stronger) for customers who perceive the firm reputation to be good (poor).**

Firm reputation for fairness moderates the relationships between, (1) distributive justice, elicited by large guarantee payout, and post-recovery trust in the firm, and (2) procedural justice, elicited by the ease of invoking the guarantee, and post-recovery trust in the firm. This moderating effect holds across both banking and car repair service contexts. Therefore, Hypotheses 10 and 11 are fully supported.

As expected, the effect of distributive justice on post-recovery trust in the firm is contingent upon the firm's reputation for fairness. Notably, *low* reputation for fairness weakens post-recovery trust in the firm given low distributive justice. However, low reputation elevates post-recovery trust given *high* distributive justice (see also

discussion in Section E3.5.3). The above effect holds when the relationship between procedural justice and post-recovery trust in the firm is considered. This finding indicates that high guarantee payout and the ease of invoking the guarantee are advantageous to engendering post-recovery trust when reputation for fairness is low, not when reputation for fairness is high. Therefore, if the firm has good reputation in the marketplace for treating customers fairly, perceived fairness of guarantee policy terms does not contribute to fostering customer trust at the recovery stage.

The above findings are in line with signaling research, which predicts that multiple signals are often used within the same encounter and these interact (e.g., Purohit and Srivastava, 2001; Biswas *et al.*, 2002; Walker and Johnson, 2009; Connelly *et al.*, 2011; Jha *et al.*, 2013). For instance, extant research shows that the effect of warranty and guarantee in conveying quality information is contingent upon the firm's reputation in the marketplace (e.g., Srivastava and Mitra, 1998; Wirtz *et al.*, 2000; Purohit and Srivastava, 2001; Wu *et al.*, 2012). Adding to the above evidence, this thesis demonstrates that, in a recovery situation, customers interpret fair guarantee payout and the ease of invoking the guarantee as credible signals that the firm can be trusted when these signals are used by firms with poor reputation for fairness. Therefore, external information about the firm's reputation for fairness is shown to interfere with information internal to the service recovery encounter, namely service guarantee policy and employee behaviour.

The direction of the moderating effect of firm reputation for fairness is consistent with predictions. As discussed in Chapter C3 of this thesis, firm reputation for fairness was expected to influence customer responses to the guarantee terms. The above expectation draws upon the cue diagnosticity framework and extant signaling research showing that more diagnostic signals, such as reputation, bias the interpretation of other (less diagnostic) signals (e.g., Purohit and Srivastava, 2001; Jha *et al.*, 2013). Based on the cue diagnosticity framework, signals (or cues) high in diagnosticity 'discount' the effect of signals low in diagnosticity. Given that firm reputation for fairness is a highly diagnostic signal, this signal was expected to attenuate the effect of service guarantee and employee recovery signals (low in diagnosticity).

Consistent with the above predictions, the findings from this thesis showed that fair terms within guarantee policies (payout and ease of invocation) are most effective at engendering customer post-recovery trust, when offered by firms with low reputation for fairness. Adding to prior research showing that reputation is a highly diagnostic

signal (e.g., Purohit and Srivastava, 2001), the present study demonstrates that service guarantee can be highly diagnostic when firm reputation for fairness is low. Extant research on service guarantees shows that money-back service guarantees are most effective when used by firms with poor reputation (Wu *et al.*, 2012). The authors explain that money-back-guarantees cognitively reduce customer perceived losses associated with the decision to use a firm with poor reputation. Further, Boulding and Kirmani (1993) earlier pointed out that poor reputation conveys low credibility of the firm and thus lowers customer confidence in the firm. In order to restore credibility, signals in the form of guarantees can be used (e.g., Hart *et al.*, 1992). Similarly, at the recovery stage, service guarantee policies and employee recovery efforts restore the credibility of the firm and lower perceived losses associated with poor reputation.

Turning the attention to Hypotheses 12 and 13, the research findings indicate that firm reputation for fairness moderates the relationship between interpersonal justice and post-recovery trust in the employee. This moderating effect holds in the car repair context, not in banking. Firm reputation for fairness does not moderate the relationship between informational justice and post-recovery trust in the employee. Therefore, H12 is supported (car repair context only), whereas H13 is not supported. As hypothesised, the effect of interpersonal justice on post-recovery trust in the employee is contingent upon the firm's reputation for fairness. Notably, at the recovery stage, *high* reputation for fairness elevates post-recovery trust in the employee given high interpersonal justice. This finding is consistent with signaling research asserting that reputable firms are expected to be unwilling to engage in false signaling, as this practice may jeopardise their reputation. Hence, the same firm may use multiple signals concurrently, and customers will evaluate the extent to which signals convey congruent information (e.g., Srivastava and Mitra; 1998; Wirtz *et al.*, 2000; Purohit and Srivastava, 2001). In this thesis, fair employee efforts at the recovery stage are perceived as a credible signal of employee trustworthiness on the basis that employees using such signal belong to a reputable firm.

### **F1.2.9 Moderating Effect of Inferred Motive**

This section includes a discussion of the findings related to the moderating effect of inferred motive in the relationships between distributive, procedural, interpersonal and informational justice and the two types of post-recovery trust, namely trust in the firm and trust in the employee. The moderating effect of inferred motive was hypothesised as follows:

- H14: Inferred (negative) motive will moderate the relationship between distributive justice elicited by payout and post-recovery trust in the firm, such that the effect of distributive justice will be weaker (stronger) for customers who infer more (less) negative motives.**
- H15: Inferred (negative) motive will moderate the relationship between procedural justice elicited by the ease of invoking the guarantee and post-recovery trust in the firm, such that the effect of procedural justice will be weaker (stronger) for customers who infer more (less) negative motives.**
- H16: Inferred (negative) motive will moderate the relationship between interpersonal justice elicited by employee concern and post-recovery trust in the employee, such that the effect of interpersonal justice will be weaker (stronger) for customers who infer more (less) negative motives.**
- H17: Inferred (negative) motive will moderate the relationship between informational justice elicited by employee communication and post-recovery trust in the employee, such that the effect of informational justice will be weaker (stronger) for customers who infer more (less) negative motives.**

Inferred motive moderates the relationship between procedural justice, elicited by the ease of invoking the guarantee, and post-recovery trust in the firm. This effect holds in the car repair context, not in banking. By contrast, inferred motive does not moderate the relationship between distributive justice, elicited by the guarantee payout, and post-recovery trust in the firm, in both service contexts. Therefore, H14 is not supported, whereas Hypothesis 15 is supported (car repair context only). The above findings are discussed below.

As expected, the effect of procedural justice on post-recovery trust in the firm is contingent upon customer attributions of motives (also referred to as 'inferred motive'). Notably, *low* inferences of negative motives weaken customer post-recovery trust in the

firm, when combined with low procedural justice. However, these inferences elevate customer post-recovery trust in the firm, when combined with high procedural justice. The above pattern lasts up to a turning point where *high* inferences of negative motive elevate post-recovery trust in the firm, when combined with high procedural justice. Remarkably, this finding indicates that rendering procedural justice at the recovery stage seems effective at enhancing customer post-recovery trust in the firm, even if inferences of negative motive are high (see also discussion in Section E3.5.6).

The above finding indicating that inferred negative motive weaken customer post-recovery trust is consistent with past research on price fairness showing that customers report price unfairness when the firm introduces a price increase thought to be driven by the firm's self-interests of increasing profits (e.g., Campbell, 1999). However, evidence that the above effect only lasts up to a turning point where *high* inferences of negative motive and high procedural justice foster post-recovery trust in the firm is contrary to the author's predictions.

As discussed in Part C of this thesis, the effect of fair guarantee policy terms on customer post-recovery trust in the firm was expected to weaken as customers attribute negative motives/intentions to the firm's decision to introduce the guarantee policy. As San Martín and Camarero (2005) explain, customers infer the firm's intentions when evaluating signals. By doing so, customers attempt to understand whether the firm uses signaling in an opportunistic manner (i.e. to attract customers). It follows that customers perceive the firm to act in an opportunistic manner if inferring negative intentions. Accordingly, this thesis hypothesised that signaling through service guarantee policy would be unsuccessful if customers inferred negative motives about the firm's decision to introduce the guarantee policy.

Contrary to the above prediction, the thesis findings show that the ease of invoking the guarantee and related perceptions of procedural justice indeed foster post-recovery trust in the firm, even if customers infer negative motives about the firm's decision to introduce this policy. This finding is contrary to prior evidence from qualitative focus groups showing that customers feel suspicious of service guarantees that meet the firm's need to create a steady flow of customers (e.g., Björlin Lidén and Edvardsson, 2003). Further, it contrasts with earlier speculations that the level of guarantee payout raises suspicion about the intentions of the firm, thus negatively influencing customer behaviour (e.g., McQuilken *et al.*, 2013). Overall, this finding is

contrary to the common belief in attribution literature that firms should convey positive motives, in order to foster positive customer outcomes such as trust.

The research finding could be explained as the result of whether customers perceive the firm's negative motives to be justifiable or not. Customers may perceive the firm's intentions to increase profits as justifiable, thus still show trust in the firm. Moreover, in the car repair context, customers may be more tolerant of firms introducing guarantee policies in an effort to increase profits, rather than to prevent customers from incurring losses in the event of service failures. Accordingly, in car repair, customers may be more concerned about the promotion focus of service guarantees (i.e. to inform customers of the service standards offered), than about the prevention focus of these policies (i.e. to compensate the customer following service failures).

Turning the attention to Hypotheses 16 and 17, the research findings show that inferred motive moderates the relationships between, (1) interpersonal justice, elicited by employee treatment, and post-recovery trust in the employee, and (2) informational justice, elicited by employee communication, and post-recovery trust in the employee. This moderating effect holds in banking, not in car repair. Therefore, Hypotheses 16 and 17 are supported (banking context only).

As hypothesised, the effect of interpersonal justice on post-recovery trust in the employee is contingent upon inferred motive. Notably, at the recovery stage, low inferences of negative motive weaken post-recovery trust in the employee as interpersonal justice is low, but these inferences elevate post-recovery trust in the employee as interpersonal justice is high. The above effect of inferred motive is also found in relation to the relationship between informational justice and post-recovery trust in the employee. Hence, interpersonal and informational justice rendered at the recovery stage are less likely to engender customer post-recovery trust if employee actions are perceived to be driven by employees' self-interests and profits.

The above findings are in line with the perspective from Signaling Theory. Extant signaling research suggests that inferences of motive influence the way customers interpret the firm's signals. For instance, Kukar-Kinney *et al.* (2007) show that customers perceive price-matching policies as unfair signals of low prices, when inferring that these policies were introduced to increase the firm's profits (negative motive). Similarly, Joireman *et al.* (2013) note that customer desire for revenge following double deviation scenarios is greater than customer desire for reconciliation,



when negative motives are inferred. Adding to the above evidence, this thesis investigates a rather overlooked causal attribution, such as inferred motive, in the context of one-off service failure and recovery encounters. In particular, this thesis demonstrates that, at the recovery stage, customers interpret employee behaviour as a signal that employees should not be trusted as their behaviour is driven by negative motives.

**CHAPTER F2: THESIS CONTRIBUTIONS TO THEORY****F2.1 INTRODUCTION**

There is a consensus amongst scholars that service recovery is an important issue for developing academic research and for informing practice in the area of service management (e.g., Fang *et al.*, 2013; Joireman *et al.*, 2013; van der Heijden *et al.*, 2013; Ro and Olson, 2014). For example, Ro and Olson (2014) state that '*service failure and recovery encounters are critical interactions directly reflecting the service level from the customer's point of view and providing a valuable opportunity for firms to retain the customers*' (p. 1162). In other words, the characteristics of the service offering, and implicitly the attributes of the service provider, are communicated during service recovery encounters. Based on these explicit and implicit messages, customers form perceptions about the firm and its employees.

As discussed in Part A of this thesis, extant service recovery research emphasises the role of employees in providing recovery compensation, in resolving the failure, in showing concern and empathy for the problem, and in communicating the reason for the service failure. Consistent with prior discussion in the literature, this thesis establishes the crucial role of service employees in showing empathy and in providing an explanation for the service failure. Advancing extant knowledge, the thesis shows how the level of efficiency and the redress offered during service recovery encounters is constrained by organisational policies.

Service guarantees exemplify organisational policies widely used in marketing practice. Guarantees are claimed following service failures, thus these policies can be employed as recovery strategies. Notwithstanding, research examining the role of service guarantees as recovery strategies remains scarce. Research in the area is, however, essential for theoretical advancements, and for service managers striving to understand how to best design and implement guarantee policies at the recovery stage. The empirical research in this thesis focused on understanding how service recovery is implemented through guarantees. In addition, accounting for the important role played by employees during service recovery encounters, the interplay of service guarantees with employee behaviour in a recovery context was examined. Broadly, the above issues were investigated in this thesis. The subject matter was examined through the development and testing of a theoretically grounded structural model. The model was experimentally tested in two service contexts – banking and car repair – for generalizability purposes (see model in Part C of this thesis).

The thesis brings together studies of justice perceptions in service recovery, and consumer research employing signaling and attribution theories in an effort to enhance understanding of customer psychological processes and behaviour in the context of service failure and recovery encounters. By examining the abovementioned issues through the multiple lenses of the well-established Signaling Theory in information economics, and Justice and Attribution Theories in social psychology, this thesis creates a novel framework for examining service recovery – a crucial aspect of service management. The thesis extends current knowledge and substantially enriches understanding of the employed theoretical precepts. Below, I encapsulate the contributions to theory in my thesis.

## **F2.2 CONTRIBUTIONS TO THEORY**

### **Extension of Justice Theory: Service Guarantee Policies as Key Elements of Restoring Justice**

Marketing practice and service management literature emphasise the role played by service employees in delivering fair service recovery (e.g., Tax *et al.*, 1998; Smith *et al.*, 1999; Chebat and Slusarczyk, 2005; Gelbrich and Roschk, 2011; van der Heijden *et al.*, 2013). In a departure from the above idea, this thesis, for the first time, investigates how service recovery can be implemented through guarantee policies. Extant service recovery research largely portrays guarantee policies as part of the service offering, not influencing the service recovery process. However, in practice, these policies are invoked when services fail, and thus, at the recovery stage. The design elements of guarantee policies can enhance or hinder the success of service recovery. Understanding how service guarantee policies best work as recovery strategies, and whether recovery fairness can be delivered through the implementation of these policies, is therefore important for advancing knowledge. Notwithstanding, research in this area is scarce. Attempting to address the above theoretical issues, this thesis reveals that service guarantees can function as recovery strategies, and these policies play a conspicuous role in the service recovery process. Given the above findings, this thesis extends theory related to justice perceptions in service recovery encounters. Specifically, the thesis establishes that perceptions of justice can be restored through the implementation of service guarantee policies. At the recovery stage, customers form perceptions of justice based on the guarantee policy terms, namely payout and ease of invocation. The policy

terms restore two types of justice within the Justice Theory framework, as summarised below.

The first type of justice is distributive justice, which is related to the concept of inequity stemming from equity theory (Adams, 1963, 1965). The theory espouses distributive justice is affirmed when the share-out of rewards in a social exchange is equitable, thus gains to the parties in the exchange are proportional to their investments. On the other hand, inequity is experienced as investments in the exchange are perceived to be greater than gains. The thesis demonstrates that customers form perceptions of distributive justice towards guarantee payout, namely the compensation set in the guarantee policy. Customers report high distributive justice when guarantee payout entails a resolution of the problem caused by the service failure and redress for the inconvenience. On the other hand, customers report low distributive justice when guarantee payout entails a forfeit amount to be claimed and spent on the next purchase. This finding is consistent with the equity theory, suggesting that compensation is fair when equitable, thus customer gains are greater than investments (i.e. purchase of the service, time to lodge a complaint). By extending research employing the justice theory framework, this thesis establishes that customers evaluate distributive justice rendered by guarantee payout differentially. When the payout is large and entails both a resolution of the service failure and a redress for the inconvenience, the customer-firm relationship is restored at equitable levels. The above means that customers expect service guarantees to include equitable payout and to receive at least redress for the inconvenience, when claiming the guarantee at the recovery stage.

The second type of justice relates to processes and stems from the theory of procedural justice (Thibaut and Walker, 1975). This thesis reveals that customers form perceptions of procedural justice towards the ease of invoking the guarantee, namely the processes of invoking the guarantee. Customers report high procedural justice when such processes are easy, terms and conditions are kept to a minimum, and invoking the policy does not cause any major inconvenience. On the other hand, customers report low procedural justice when the process of invoking the guarantee is difficult, time consuming, and constrained by policy terms and conditions. This finding is consistent with the theory of procedural justice suggesting that processes are fair when timely and enhance perceived control over the final decision (i.e. to provide redress). Extending research employing the Justice Theory framework, this thesis establishes that customers evaluate procedural justice rendered by the process of invoking the guarantee. At the

recovery stage, easy processes of invoking the guarantee enhance perceived control, as customers can efficiently claim the payout. This means that customers expect service guarantee policies to be easy-to-invoke, as ease of invocation facilitates timely resolution of service failures.

In the light of the above, this thesis addresses important theoretical issues related to the role of service guarantees as recovery strategies, and their impact on the efficacy of the service recovery process. In particular, the thesis expands previous work in service recovery research by establishing service guarantee terms as key elements of restoring customer perceptions of distributive and procedural justice, following service failures. This thesis confirms the relevance of the Justice Theory framework in explaining customer perceptions towards service guarantee policies implemented as recovery strategies. In addition, the thesis contributes to further conceptual development of the justice theory framework by substantially enhancing understanding of what fair service recovery constitutes. A major theoretical implication is that the investigation of service recovery encounters should not be solely limited to focusing on the role played by service employees, but should also embrace service guarantee policies.

### **The Application of Signaling Theory: Signaling Firm and Employee Trustworthiness at Service Recovery Stage**

Put forth by Spence in 1973, the Signaling Theory has been extensively applied in consumer research. The extant consumer research employing Signaling Theory has focused on explaining how marketing signals influence customer purchase decisions (e.g., Wirtz *et al.*, 2000; Kukar-Kinney and Walters, 2003; Chatterjee *et al.*, 2005; Jin and He, 2013). This body of research shows that marketing signals lower information asymmetry, whereby the firm holds greater (asymmetrical) information about a product/service than the customer. In order to do so, marketing signals provide cues about the quality of the product/service and the attributes of the firm. By gaining quality information, customer uncertainty related to the purchase decision is lowered, whereas trust and intentions to purchase from the signaling firm are enhanced.

The above logic can also apply to customer *repurchase* decisions, when customers experience uncertainty related to the decision to revisit the same firm, as suggested by San Martin and Camarero (2005). In such instances, information about the trustworthiness of the firm helps customers to decide whether to revisit the same firm or to switch. Customer uncertainty related to repurchase decisions can be amplified when a

service fails. When a service fails, customers need information about the attributes of the firm in handling complaints. Such information, conveyed through signaling, helps customers to decide whether to revisit the firm or to switch to a different service provider. Based on the above reasoning, this thesis examined signaling at the service recovery stage.

This thesis, for the first time, establishes the role of service guarantees as signals of the *firm's* trustworthiness at the recovery stage, and in particular, the differential impact of guarantee terms on customer trust and repurchase intentions. Results from this thesis show that easy-to-invoke guarantees signal the firm's trustworthiness, thereby influencing customer post-recovery trust in the firm and repurchase intentions. Despite being perceived as fair, guarantee payout does not influence customer trust in the firm, following service recovery. This finding provides compelling evidence that challenges earlier thinking that redress is an essential organisational recovery effort (e.g., Estelami, 2000; Davidow, 2003a). Although fair, redress included in the guarantee payout appears much less important than ease of invocation when service guarantees are claimed at the recovery stage. However, payout functions as a signal of the *firm's* trustworthiness when firm reputation is considered. This thesis demonstrates that firm reputation for fairness also functions as a signal, external to the service recovery encounter. In particular, firm reputation for fairness biases customer evaluations of signals internal to the service recovery encounter, such as service guarantee. Results from this thesis indicate that fair service guarantee is effective at enhancing trust when offered by firms with poor, rather than good reputation for fairness<sup>4</sup>.

Furthermore, this thesis demonstrates that employee behaviour during service recovery functions as a signal of *employees'* trustworthiness, thus shaping customer trust in the employee and repurchase intentions. The above findings are consistent with Signaling Theory (Spence, 1973) suggesting that signals lower information asymmetry and customer uncertainty related to repurchase decisions. Extending research employing Signaling Theory, this thesis establishes that service guarantee and employee behaviour function as marketing signals at the recovery stage. These signals directly, and through

---

<sup>4</sup> Arguably, this finding could be explained through the lens of distributive justice. Homans (1961) says that '*fair exchange, or distributive justice in the relations among men is realized when the profits of each man is directly proportional to his investments*' (p. 264). Extending this reasoning to a service recovery context, firms with poor reputation are perceived to have made lower investments in the exchange than reputable firms. Their profits from the exchange should therefore be proportionally low. However, when providing high payout, customers perceive the investments of poor reputation firms to increase. Accordingly, showing trust in these firms is perceived to lead to profits, which are now proportional to the (increased) investments made by the firm.

the interaction with firm reputation for fairness, lower customer uncertainty related to the decision to trust and to revisit the service firm.

In the light of the above, this thesis makes three important theoretical contributions to signaling research. *First*, the thesis introduces a novel perspective to signaling research that considers how firms can use signals at the recovery stage. Through signaling, information asymmetry following service failures and customer uncertainty related to the decision to continue their custom with the firm are lowered. Moreover, this thesis conceptualises service guarantee policies and employee behaviour as dual signals at the recovery stage. Such duality is also reflected in customer trust judgments. Specifically, 'firm' and 'employee' trust referents are distinguished. This thesis provides empirical evidence on the relevance of the above distinction, thus confirming earlier conjecture by Bies and Moag (1986) that procedural justice perceptions generalise to the entire organisation, whereas interactional justice perceptions generalise to the single individual or decision-maker.

In line with the above reasoning, results from this thesis show that service guarantee terms and employee behaviour elicit differential types of justice (see discussion in previous section), which in turn lead to referent-specific trust. Accordingly, in this thesis, perceived justice elicited by service guarantees shapes post-recovery trust in the firm, whereas perceived justice elicited by employee behaviour shapes post-recovery trust in the individual employee. Evidence on the duality of trust referents represents the *second* important theoretical contribution of this thesis to signaling research. By distinguishing between 'firm' and 'employee' trust referents, this thesis offers a nuanced understanding of signaling through service guarantee and employee behaviour at the recovery stage.

*Third*, this thesis adds to knowledge in signaling literature by providing empirical evidence that multiple signals are in operation at the recovery stage, and their interaction influences customer post-recovery trust and repurchase intentions. In particular, the behaviour of service employees is important at the recovery stage, as previously shown (e.g., Tax *et al.*, 1998; Smith *et al.*, 1999; Chebat and Slusarczyk, 2005). In the present study, service guarantees are found to be equally important. Both employee behaviour and service guarantees function as signals alongside firm reputation for fairness, and the interaction of the three signals influences customer post-recovery trust and repurchase intentions.

### **Extension and Application of Attribution Theory: Inferred Motive as a Contingency Factor in Customer Evaluations of Service Recovery**

Social psychologists contend that individuals have a universal concern with seeking explanations (Weiner, 2000). The process of seeking explanations fulfils individuals' need to attain cognitive mastery of the environment. In the process of seeking explanations, individuals engage in causal attributions, whereby they attempt to identify the cause of events, especially negative ones. The pervasiveness of causal attributions for negative events such as service failures is well recognised in extant service recovery research (e.g., Swanson and Kelley, 2001; Hess *et al.*, 2003; Van Vaerenberg *et al.*, 2014). By making causal attributions for service failures, customers cognitively attempt to find the reason why such events occurred. In particular, the above studies examine customer inferences about the cause of the service failure (locus), and the extent to which the service failure could have been prevented (controllability) and is likely to occur again in the future (stability). The above studies largely focus on customer attributions for the service failure, whilst overlooking attributions related to service recovery. However, when offered guarantees, customers evaluate the characteristics of the policy and infer the motives underlying the firm's decision for offering the policy (e.g., Kukar-Kinney *et al.*, 2007). Similarly, when employee recovery efforts are unsatisfactory and *double deviation* situations occur, customers make inferences about the firm's motives for offering unsatisfactory recovery (e.g., Joireman *et al.*, 2013). Hence, a key causal attribution for service recovery pertains to the inferences of motive.

This thesis establishes that when recovery is delivered through service guarantees, inferring the firm's motive for offering fair guarantee terms helps customers to decide whether the firm is genuinely interested in protecting customers against losses. Results from this thesis reveal that fair service guarantee terms engender post-recovery trust in the firm, even when negative motives are inferred about the firm's decision to introduce the guarantee policy. Customers perceive the firm to be trustworthy<sup>5</sup> even when the offering of the service guarantee is aimed at increasing the firm's profits (negative motives), rather than at preventing customer losses (positive motives). The negative motives thus appear justifiable in customers' eyes.

---

<sup>5</sup> Attributional theory refers to attributional biases. One type of bias relates to the tendency for actors to attribute their actions to situational requirements, and for observers to attribute the same actions to stable personal dispositions (Weiner, 1986). In this study there might have been a tendency for customers to attribute the firm's actions to stable dispositions (i.e. taking advantage of customers), rather than situational factors, simply because the perspective of the observer is considered (i.e. the customer).



In addition, inferring the employees' motives for behaving in a fair manner during complaint handling helps customers to decide whether employees are sincere and genuinely care about customers' interests. Results from this thesis reveal that fair employee behaviour is effective at engendering post-recovery trust in the employee, when underlying benign motives are inferred about employees' actions. In other words, customers are willing to trust employees when inferring that their behaviour at the recovery stage is sincere and indicative that employees care about fair complaint handling. By contrast, customers are less willing to trust employees when inferring that employee behaviour at the recovery stage is driven by self-interests, such as obtaining an incentive. In such instances, employees are perceived as uncaring and untrustworthy.

The findings in this thesis confirm the relevance of the Attribution Theory (Heider, 1958) as a theoretical framework for explaining how customers make sense of the firm's policies and employee's actions at the recovery stage. Extending research employing Attribution Theory, this thesis establishes that customers make causal attributions for service recovery, not only for service failures. Customers make attributions about the motives underlying the firm's and employees' recovery efforts, and such attributions shape their responses to service recovery encounters. Another revelation of this thesis lies in the interface between signaling and attribution theories. This thesis adds to knowledge in signaling literature by providing empirical evidence that signals not only convey information about quality, but also information about *intentions*. Such intentions are often tacit, thus inferred by customers at the recovery stage.

In the light of the above, this thesis makes two important theoretical contributions to service recovery research. *First*, this thesis adds a new dimension to theoretical knowledge in the domain. This dimension entails a key cognition, namely *inferred motive*. By including this cognition, this thesis provides theoretical merit for the role of inferred motive in explaining customer responses to service recovery encounters. In particular, the thesis establishes inferred motive as a major intervening factor that influences signaling through service recovery in the form of service guarantee and/or employee behaviour. *Second*, this thesis establishes that customers make causal attributions for service failures, and for service recovery as well. Customer evaluation of recovery efforts not only depends upon the characteristics of service recovery efforts, but also upon inferred motives. Hence, a major theoretical implication of this thesis is that the investigation of customer responses to service recovery should

not be solely limited to focusing on attributions for service failures, but should also embrace attributions for service recovery.

### **The Application of Multiple Theoretical Lenses to Unravel Customer Evaluations of Service Recovery**

As elucidated in the sections above, customer psychological processes of evaluating service recovery encounters are complex. Although firms strive to deliver service recovery, customers often find complaint handling and related service recovery efforts unsatisfactory, as evidenced by empirical research and industry reports (e.g., Department of Trade and Industry Report, 2002; Holloway and Beatty, 2003; Mintel, 2014). This thesis demonstrates that customer evaluations of service recovery are based upon a multitude of factors, including the characteristics of the firm's organisational policies, the manner in which employees behave, as well as the reputation of the firm in the marketplace and inferences about the firm's motives. In order to unravel the complexities intrinsic to customer evaluations of service recovery, this thesis integrates three well-established theories from different disciplines, social psychology and information economics, with the service recovery concept in services marketing literature. By integrating Justice Theory, Attribution Theory, and Signaling Theory, this thesis leads to new conceptual development in the domain of service recovery research. An overview of the integration of the above three theories is provided below.

In this thesis, the role of service guarantee and employee behaviour as service recovery strategies, and their direct impact on customer post-recovery trust were examined through the dual lens of justice and signaling theories. Justice Theory explains customer perceptions of justice elicited by employee recovery efforts and service guarantees, when these policies are employed as recovery strategies. Signaling Theory, on the other hand, elucidates the psychological mechanism underlying customer willingness to trust and to revisit the firm, following service failures. Fair guarantee policies and employee behaviour at the recovery stage are demonstrated to function as signals, thereby providing customers with cues about the firm's and employees' trustworthiness. In their role of signals, fair guarantee policies and employee behaviour lower customer uncertainty related to the decision to repurchase from the firm. Consequently, customers show trust and repurchase intentions following service failures. By incorporating the concept of signaling into justice theories, this thesis shows how each service recovery effort, whether in the form of service guarantee

policy or employee behaviour, provides an opportunity for the firm to convey an image of trustworthiness to customers that, in turn, enhances trust.

Furthermore, in this thesis, the role of intervening factors that attenuate or strengthen the impact of service guarantee and employee behaviour on post-recovery trust was examined through the dual lenses of signaling and attribution theories. Signaling Theory offers a theoretical explanation for the interaction between service guarantee, employee behaviour and firm reputation for fairness. Attribution Theory, on the other hand, explains how the firm's and employees' motives conveyed through signaling influence customer evaluations of service recovery. Fair employee behaviour is shown to engender customer post-recovery trust, when employee motives are not perceived as insidious. Drawing upon signaling and attribution theories, the thesis demonstrates that theoretical understanding of customer responses to service recovery encounters can be substantially enhanced by taking into account the dimensions of firm reputation for fairness and inferred motive.

## **CHAPTER F3: IMPLICATIONS FOR SERVICE MANAGERS AND POLICY MAKERS**

### **F3.1 INTRODUCTION**

The findings from this thesis offer substantial implications for service managers and policy makers. Such implications convey what Corley and Gioia (2011) define as the *practical utility* of research, which arises '*when theory can be directly applied to the problems practicing managers and other organizational practitioners face*' (p. 18). In particular, this section offers empirically-grounded recommendations that can assist managers in designing service guarantee policies, in training their service employees, and in gaining understanding of the cognitive processes underlying customer evaluations of the firm's policies and employee behaviour. Further, the recommendations will help policy makers to design and propose new regulations in the areas of complaint handling and service recovery management that ensure fair customer treatment.

### **F3.2 IMPLICATIONS FOR SERVICE MANAGERS**

#### **Leveraging Customer-oriented Guarantee Policies and Trained Employees as Signals of Trustworthiness**

The results in this thesis provide empirical evidence that perceptions of fairness elicited by service guarantee terms and employee behaviour at the recovery stage can enhance relational outcomes such as trust. Post-recovery trust in the firm and in the employee facilitate customer commitment and loyalty to the relationship with the firm. The above results indicate that, at the recovery stage, customer trust can be enhanced by signaling the trustworthiness of the firm and of the employees, including competence in handling service failures and willingness to treat customers fairly. Examples of effective signals at the recovery stage are: easy-to-invoke guarantee policies, well-trained employees who show empathy, concern, and take responsibility for the service failure. With respect to guarantee payout, the evidence from this thesis points out that customer perceptions of guarantee payout are context-specific. Equitable payout is important to customers, yet not a main concern when deciding whether to trust the firm or not. Indeed, the offer of equitable payout as part of the guarantee is crucial for banks and car repair workshops having poor reputation for fairness.

The implication of the above results for managerial practice is that the mere offering of a service guarantee does not ensure customer trust. In this regard, investments in creating customer-oriented service guarantee policies are crucial for building customer trust at the recovery stage. Firms should invest resources in designing policies that embed customer requisites for fairness. For instance, easy-to-invoke guarantees enable timely complaint handling and convey the firm's commitment towards resolving service failures. At the recovery stage, the guarantee can, therefore, be leveraged as a signal of the firm trustworthiness. Additionally, the thesis demonstrates that services should invest in employee training. Bespoke training should be provided to employees for showing empathy and for effective communication. Interpersonal treatment and employee communication signal the employees' competence and commitment towards handling complaints.

In the light of the above, communication strategies promoting guarantee policies should, therefore, emphasise the ease of invoking the guarantee. The large size of guarantee payout should be prominent in the marketing communication materials of less reputed firms, but less conspicuous in the marketing communications of highly reputed firms. Service firms who have a long-standing reputation in the marketplace are advised to continue investing in reputation-building activities. Customers of highly reputed firms interpret reputation as a signal of the firm's and employee's trustworthiness, more than the guarantee policy.

### **Promoting Customer Trust in the Employee in order to Enhance Trust in the Firm**

This thesis demonstrates that customers distinguish between trust in the firm and trust in the employee. In particular, at the recovery stage, customer trust in the employee influences trust in the firm and its management staff. The research findings show a transference process between post-recovery trust in the employee and post-recovery trust in the firm, whereby trust in the employee transfers to trust in the firm. This finding has notable implications for marketing practice, as discussed below. When there is high post-recovery trust in the firm, managers could benefit from the enhanced relationship between the two types of trust. When customers have low trust in the firm and its management, managers should direct their attention towards customer trust in the employee, especially trust in employees who are at the interface with customers at the recovery stage. Post-recovery trust in the employee is, in fact, a prerequisite for customers to build trust in the firm. In addition, post-recovery trust in the employee is a

more important antecedent to affective commitment and behavioural loyalty, than post-recovery trust in the firm. Managers would benefit from investing in building customer post-recovery trust in the employee.

Key precursors of trust in the employee are interpersonal and informational justice elicited by employee interpersonal treatment and communication at the recovery stage. An implication of this finding is that managers should invest resources in hiring employees with the right skills to be able to interact with customers effectively, for instance, by showing empathy and concern. Moreover, managers should consider empowering employees for providing candid explanations about service failures, rather than excuses, given its importance for conveying informational justice.

Following on the above, this thesis shows that customers form post-recovery trust (in the firm and in the employee) through cognitive as well as emotional processes. From a cognitive perspective, customers assess the competence, benevolence and honesty of the firm and its employees. From an emotional perspective, customers are concerned about the care and concern shown by staff and the firm during service recovery encounters. Based on this finding, managers are advised to design their training and staff development programs in a way that employees not only acquire technical abilities and efficiency on the job, but also soft skills allowing them to connect with customers at an emotional level. In a similar way, marketing communication materials should not only convey the firm's competence in handling service failures, but also the experiential aspects of service recovery encounters. In banking, for instance, marketing communications can be used to convey the firm's competence in providing financial counselling or sympathetic environment in case of fraud or bank overcharge, as well as emotional aspects related to the customer experience of visiting a local branch or the company's website following service problems<sup>6</sup>.

### **Managing Customer Expectations set by Firm Reputation**

The findings from this thesis provide evidence of the influence of firm reputation for fairness on customer responses to service guarantee and employee behaviour employed as recovery strategies. Firm reputation for fairness, namely the

---

<sup>6</sup> Recent research by Singh and Crisafulli (2015) demonstrates that customers are concerned about finding the right information on the companies' websites following service failures and are willing to participate in the service recovery process. Singh, J. and Crisafulli, B. (2015) 'Managing online service recovery: Procedures, justice and customer satisfaction', *Journal of Service Theory and Practice* (forthcoming).

perceived company's ability to provide fairness to customers, is found to set expectations about the recovery encounter, in both banking and car repair contexts. These expectations influence customer evaluations of firm's service recovery strategies. This thesis demonstrates that if the firm has a weak reputation for fairness, offering fair service guarantee enhances customer post-recovery trust in the firm. If, on the other hand, the firm has strong reputation for fairness, offering fair service guarantee at the recovery stage is less beneficial, but fair employee behaviour can enhance customer trust.

The above findings imply that managers should adopt different service recovery strategies depending on the firm's reputation for fairness. More specifically, the evidence indicates that the advantage of providing fair guarantee policies is apparent for firms having weak reputation for fairness. If the firm has weak reputation for treating customers fairly, offering a service guarantee policy is advantageous. Notably, the guarantee policy should include fair terms - large payout and easy processes of invocation. Fair guarantee terms reduce customer perceived losses associated with the decision to use a firm with weak reputation for fairness. In other words, fair guarantee terms act as a signal that the firm is trustworthy, even though reputation for fairness indicates otherwise. Hence, managers at less reputed banking institutions and car repair workshops are advised to offer service guarantee policies that are easy-to-invoke and include generous payout. The communication strategy of these firms should emphasise the compensation levels and the flexibility in claiming the guarantee in the event of service failures.

By contrast, if the firm has strong reputation for treating customers fairly, just offering the service guarantee may not be enough. More attention should be directed towards other service recovery strategies that enhance customer post-recovery trust. Specifically, reputable firms are expected to employ frontline employees with soft skills such as empathy. Given their reputation in the marketplace, these firms are expected to be adequately prepared to provide good customer service during complaint handling and to ensure fair customer treatment at the recovery stage. In the light of the above, managers are recommended to focus on investing resources in employee professional development. Managers should carefully determine if offering fair service guarantee is consistent with the reputation of the firm, and whether investments should be directed towards designing and implementing the guarantee, or towards reputation-building activities.

### **Signaling Positive Motives through Service Recovery**

The research findings in this thesis provide evidence of the influence of inferred motive on customer responses to service guarantee and employee behaviour employed as recovery strategies. Inferred motive, namely the extent to which the customer believes that the actions of employees and the offer of the guarantee policy are driven by intentions to fulfil self-interests, is found to attenuate the effect of ease of invocation on customer post-recovery trust in the firm. This finding suggests that when customers experience service failures, they make unprompted inferences about the motives underlying the firm's decision to offer the guarantee. As negative motives are inferred, customers report lower levels of trust in the firm. The above finding indicates that seemingly effective service guarantees are disadvantageous for firms if customers perceive these policies to meet the firm's self-interests of profits as opposed to customer interests (i.e. prevent the customer from incurring losses).

However, the above effect is not enduring given that, at a certain point, customers are found to continue showing post-recovery trust in the firm, even though negative motives are inferred about the firm's decision to offer the guarantee policy. This finding can arguably be explained by the extent to which customers perceive the firm's motives to be justified or not. Moreover, in such instances, customers seem to focus more on the function of service guarantees to inform customers about the service standards provided, and less on the function of guarantees to prevent customer losses.

Given the above finding, in car repair, firms should convey positive motives about the decision to introduce the guarantee. If conveying negative motives is inevitable, firms should attempt to give a justifiable reason for those motives. The findings from this thesis suggest that the way the guarantee is designed, especially the ease of invoking the policy, is fundamental to building customer trust in the firm at the recovery stage. In particular, customers seem to perceive the firm's practice of offering the guarantee for interests of profits to be well accepted. In this sense, car repair workshops arguably have greater flexibility in service guarantee design than banking institutions.

In banking, on the other hand, inferred motive is found to attenuate the effect of employee fair treatment and communication on customer trust in the employee at the recovery stage. Employee behaviour during recovery encounters creates customer trust, as long as positive motives are inferred about employees' actions. If negative motives are inferred (i.e. obtain a promotion, prevent escalation of the complaint to



management), employee behaviour is less influential in shaping customer post-recovery trust in the employee. Given the above, managers at banking institutions are advised to convey positive motives through marketing communications, for instance, by describing how employees, through their knowledge and expertise, can assist in meeting customers' interests at the recovery stage.

### **F3.3 IMPLICATIONS FOR POLICY MAKERS**

#### **Policy Regulations in the Area of Service Recovery Management**

In addition to managerial practice, issues related to complaint handling and service recovery management are relevant for policy makers. As evidenced by mass media coverage, several large companies (e.g., Royal Bank Scotland, Ryanair) frequently experience service failures and customer complaints, and have inadequate complaint handling practices. Given the detrimental consequences that inadequate complaint handling can have on companies' profitability and on consumers' well-being, policymakers increasingly take interest in the idea to set regulations on how firms should deal with customer complaints, design and enforce organisational policies. The results from this thesis can drive the agenda for policymakers in relation to introducing improvements to current business practices in the areas of complaint handling and service recovery management, as discussed below.

In the UK banking industry, for instance, the Financial Services Authority (FSA) has since 2007 recognised the importance of *fair* complaint handling. As part of the Treating Customers Fairly (TCF) initiative introduced in the same year, the FSA identifies six improved outcomes of fair customer treatment. One of the six outcomes reads as follows: '*consumers do not face unreasonable post-sale barriers imposed by firms to change product, switch provider, submit a claim or make a complaint*' (Financial Services Authority, 2007, p. 2). With this initiative, the FSA, therefore, highlights the importance of making the process of lodging a complaint and claiming redress easy (easy-to-invoke policies) for customers. Notwithstanding, the abovementioned report lacks details in relation to how to make claiming processes 'easy'.

Similarly, a 2014 report published by the Financial Services Consumer Panel (an independent statutory body representing the interests of consumers) lists several objectives of the panel's work towards creating an open financial services market that

meets the needs of consumers. Two objectives specifically relate to issues in the areas of complaint handling and service recovery management: *'Complaints handling is made accessible, quick, fair and free to the consumer; and redress is set appropriately and provided promptly'* (Financial Services Consumer Panel, 2014, p. 7). In the objectives, the importance of ensuring fair complaint handling is stated. In particular, the panel highlights that redress should be appropriate and provided in a prompt manner. However, the report does not give details of what 'appropriate' redress entails.

In the car repair industry, Citizen Advice (a government body) gives some policy guidelines in relation to the process of lodging a complaint and making a claim through a third party or trade association ([citizenadvice.org.uk](http://citizenadvice.org.uk), 2015). In this respect, customers are advised to make a formal, written complaint detailing what the problem is, information about the car workshop, enclosing paperwork or invoices and/or earlier correspondence (i.e. emails, invoices, quotes, videos, photos) and the names of witnesses who can confirm the legitimacy of the claim. When claiming service guarantees by dealing with the car workshop directly, inconsistent procedures are used, with some workshops asking customers to simply contact the workshop (AutoRestore, 2015), and other workshops asking customers to provide a written claim along with evidence of the purchase (ChipsAway, 2015). Similarly, policy guidelines in relation to redress vary across car workshops. In some instances, redress entails carrying out the failed car repair at no charge to the customer (AutoRestore, 2015; ChipsAway, 2015), and in other instances, redress is a refund of the cost originally paid for the service ([citizensadvice.org.uk](http://citizensadvice.org.uk), 2015).

Findings in this thesis shed light on the efficacy of existing policy guidelines in the areas of complaint handling and service recovery management. This thesis shows that banks and car repair workshops should introduce guarantee policies in order to rectify service failures. Service guarantees send signals to customers that the firm has clear service standards and makes every effort to resolve situations where these standards are not met. In particular, when considering how to approach regulation of service guarantee policies, policymakers should take into account the following guidelines. The first important element of service guarantee design is the ease of invoking the policy. Policies that include fewer terms and conditions, and enable customers to claim redress with 'no questions asked' are perceived to be fair and enhance customer trust in the firm. Guarantee policies that require the customer to submit a written claim, explain the reason for the claim and wait for results from the

firm's validity check of the claim are perceived as unfair and signal opportunistic behaviour of the firm. A second element of service guarantees relates to payout. This thesis shows that service guarantee policies are perceived to be fair when including large payout that exceeds a refund of cost of the service. Such empirical evidence has been overlooked in current business policy guidelines. Moreover, employee behaviour is important at the recovery stage. The thesis suggests that regulators should be concerned with setting standards regarding employee treatment of customers during service failure and recovery encounters.

## **CHAPTER F4: THESIS LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH**

### **F4.1 INTRODUCTION**

Chapter F4 presents the limitations of the research conducted in this thesis. The thesis limitations provide a number of directions for future research in services marketing. Below, the thesis limitations are presented along with concurring directions for future research.

### **F4.2 BROADENING THE RESEARCH SCOPE**

#### **Research Direction 1: Investigating the Interplay between Guarantee Scope, Payout and Ease of Invocation**

This thesis examines two service guarantee design elements (or terms) - payout and ease of invocation. Although the literature suggests that the above two terms are important and merit attention (see Parts B and C of this thesis), other guarantee design elements exist. An example is the scope of service guarantees. Extant research distinguishes between 'specific' and 'unconditional' guarantees, depending on whether one aspect (specific) or all aspects (unconditional) of the service delivery are within the scope of the guarantee (Berman and Mathur, 2014).

Future research might extend this thesis by investigating the interplay between guarantee scope, payout and ease of invocation in service recovery. It would be interesting to assess whether distributive justice perceptions elicited by high payout are contingent upon the scope of the guarantee. Research might reveal whether customers show differential perceptions of distributive justice when high payout is provided through a specific vs. unconditional guarantee. Broadening the scope of research to include an additional guarantee design element – guarantee scope – could lead to further theoretical understanding of customer responses to service guarantees in service recovery.

#### **Research Direction 2: Examining the Effect of Multiple Service Guarantees on Customer Perceptions**

This thesis focuses on customer evaluations of the terms set in *one* guarantee invoked at the recovery stage, and offered by *one* service firm. Nonetheless, in practice,

consumers might be exposed to multiple service guarantees offered by different firms concurrently. In similar circumstances, consumers may compare the service guarantee invoked during service recovery with service guarantee policies offered by other service firms. Future research could examine whether and how the congruency (or the lack thereof) of signals conveyed by service guarantee policies offered by different service firms affects customer perceptions.

### **Research Direction 3: Exploring the Effect of Service Guarantees provided Online on Customer Perceptions**

This thesis examines the role of service guarantee signals in the context of offline service failure and recovery encounters. However, technology increasingly mediates customer-firm interactions. In banking, customers often use technology-mediated services (i.e. online banking, ATM machines). Customers value customized interpersonal treatment in the context of technology-mediated interactions, as much as they do in the context of offline, face-to-face interactions (e.g., Singh and Crisafulli, 2015). However, customers might show differential perceptions towards service guarantees, when these policies are invoked online. In the realm of price guarantees, Ho *et al.* (2011) speculate that customers perceive price guarantees provided online as less credible signals than guarantees provided offline. Further, the process of claiming the guarantee payout online is perceived as complicated. The above reasoning may apply to service guarantees invoked online, at the recovery stage. Future research could add to findings from this thesis by investigating customer perceptions of justice related to service guarantees invoked following an online service failure.

### **Research Direction 4: Comparing the Proposed Model with Alternative Models**

This thesis tested the conceptual framework by employing the PLS-SEM analytical technique. Although this technique is robust when data do not meet assumptions of normality, and when dealing with complex models such as the one included in this thesis, researchers have opined some limitations of PLS-SEM. The absence of a global model fit index restricts the use of PLS-SEM for theory testing and for comparing alternative model structures (Hair *et al.*, 2012). Another limitation pointed out by Henseler *et al.* (2015) is the tendency of this technique for overestimation of the outer model and for underestimation of the inner model structure.

This limitation results from the calculation of the latent variables as aggregates of manifest variables. Measurement error is equally present in the manifest variables and in the latent variable scores (i.e. aggregates of manifest variables), and it is reflected in the path coefficient estimates. As a result, loadings tend to be overestimated, and path coefficients tend to be underestimated. This limitation of PLS-SEM is reported as PLS bias (Henseler *et al.*, 2015), and it is debated as a weakness of PLS-SEM when compared with covariance-based SEM. PLS bias can, however, be overcome as the number of observations and the number of indicators in the model increases (Hair *et al.*, 2012). In addition, PLS-SEM is shown to be accurate if variable distributions are skewed (Hulland, Ryan and Rayner, 2010). This thesis focused on theory building, included a large number of indicators and observations, and data did not meet distribution assumptions. PLS-SEM was, therefore, a suitable technique, and a point of strength for the research. Building on this thesis, future research could focus on theory testing and the comparison of the proposed model with alternative model structures.

### **F4.3 ENHANCING THE GENERALIZABILITY OF RESEARCH FINDINGS**

#### **Research Direction 5: Undertaking a Field Study**

This thesis tested the conceptual framework of the research by conducting a scenario-based experiment. Following this method, respondents were presented with hypothetical scenarios of service failure and recovery and provided evaluations of the service guarantee and employee behaviour depicted in the scenarios. Although this method is frequently used in service recovery research, concerns can arise about the external and ecological validity of research findings. In order to offset concerns about external validity, the manipulations of service guarantee and employee behaviour were based on insights from extensive secondary research (see also Appendix D). In addition, the conceptual framework was tested across two service settings – banking and car repair (see Part D of this thesis). In order to establish the ecological validity of findings, extensive pre-testing and pilot testing of the self-completion questionnaire were undertaken (see Part E of this thesis). Hence, the use of an experiment marks a benefit of this thesis, in that the research tested the efficacy of guarantee design elements and employee behaviour, given that both aspects were manipulated in the scenarios. It is, however, acknowledged that the findings from the research are tentative. Future studies could enhance the generalizability of the experimental findings from this research by testing the conceptual framework in a field study.

**Research Direction 6: Triangulating Research Findings with Company Data**

In this thesis, primary data were collected by means of an online self-completion questionnaire. No observational data were collected. Data were therefore merely based on customer self-reports. Customer perceptions and behavioural intentions (i.e. intentions to revisit the firm and to generate positive word of mouth) were measured, rather than actual behaviour. Although behavioural intentions are commonly used as proxies for actual behaviour, behavioural data might contribute to establishing the predictive power of the conceptual framework in this thesis.

Further, data were collected from a probability sample of UK consumers. The sample was drawn from an online consumer panel owned by a reputed UK-based market research agency. The online consumer panel was therefore the sampling frame for the research (see Part D of this thesis). By adopting this sampling frame, potential issues related to self-selection bias related to consumers' decision to join (or leave) the panel could not be prevented. In consideration of the above, care should be taken in generalising findings beyond the sample drawn for the research conducted in this thesis. In order to enhance generalizability, future research could triangulate the research findings in this thesis with data from companies employing service guarantees.

**Research Direction 7: Replicating the Research in the Context of Experiential Services**

The thesis selected banking and car repair as contexts for the research. Given that the characteristics services are highly unobservable, customer evaluation of these services before and even after consumption is often difficult. Consequently, customers tend to rely heavily upon signals in order to evaluate the service they receive. Signaling is therefore relevant in these service contexts. Nonetheless, the possibility that customer reactions to service guarantee, employee behaviour and firm reputation will be different in other service settings cannot be precluded. By replicating this thesis in other service contexts, including experiential services such as hotel and holiday services, the generalizability of research findings might be enhanced.

#### **F4.4 UNDERSTANDING HOW CUSTOMERS INTERPRET SERVICE RECOVERY ENCOUNTERS**

##### **Research Direction 8: Adopting an Interpretivist Philosophical Stance**

This thesis followed a positivist philosophical orientation in order to test the conceptual framework of the research. This philosophical orientation informed the decision to select methods belonging to the positivist tradition, such as experiment and Structural Equation Modeling analytical technique. Whilst advancing knowledge on the direction of causality between constructs in the conceptual framework of the research, the selected methods largely fail to detect customer interpretation of the constructs. In this thesis, well-established theories from social psychology (Justice and Attribution Theories) and information economics (Signaling Theory) provide a theoretical explanation for the impact of service guarantees on customer post-recovery trust, and consequent outcomes. By following an interpretivist philosophical stance, future studies could add to this thesis by providing insights on the subjective meanings that customers attach to service guarantees and employee behaviour at the recovery stage.

#### **F4.5 ASSESSING CUSTOMER PERCEPTIONS OF SERVICE RECOVERY OVER TIME**

##### **Research Direction 9: Employing Longitudinal Research**

This thesis uses cross-sectional data to investigate the effect of service guarantee policies and employee behaviour at the recovery stage on customer perceptions of justice, trust and related outcomes. Nonetheless, it is acknowledged that customer perceptions may change over time. Future research could investigate whether and how customer perceptions towards the service guarantee as well as employee behaviour change over time, especially when multiple service failures are incurred. In order to accomplish the above, a longitudinal approach to research is recommended.



## REFERENCES

- Adams, J.S. (1963) 'Toward an understanding of inequity', *Journal of Abnormal and Social Psychology*, 67(5), pp. 422-436.
- Adams, J.S. (1965) 'Inequity in social exchange', in Berkowitz, L. (ed.) *Advances in Experimental Psychology*, Vol. 2. New York, NY: Academic Press, pp. 267-299.
- Aggarwal, P. and Larrick, R.P. (2012) 'When consumers care about being treated fairly: The interaction of relationship norms and fairness norms', *Journal of Consumer Psychology*, 22(1), pp. 114-127.
- Ajzen, I. (1991) 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes*, 50(2), pp. 179-211.
- Akerlof, G.A. (1970) 'The market for "Lemons": Quality uncertainty and the market mechanism', *The Quarterly Journal of Economics*, 84(3), pp. 488-500.
- Allen, N.J. and Meyer, J.P. (1990) 'The measurement and antecedents of affective, continuance and normative commitment to the organization', *Journal of Occupational Psychology*, 63(1), pp. 1-18.
- Ambrose, M.L. and Cropanzano, R. (2003) 'A longitudinal analysis of organizational fairness: An examination of reactions to tenure and promotion decisions', *Journal of Applied Psychology*, 88(2), pp. 266-275.
- Anderson, E. and Weitz, B. (1992) 'The use of pledges to build and sustain commitment to distribution channels', *Journal of Marketing Research*, 29(1), pp. 18-34.
- Andreassen, T.W. (2001) 'From disgust to delight. Do customers hold a grudge?', *Journal of Service Research*, 4(1), pp. 39-49.
- Antón, C., Camarero, C. and Carrero, M. (2007) 'Analysing firms' failures as determinants of consumer switching intentions. The effect of moderating factors', *European Journal of Marketing*, 41(1/2), pp. 135-158.
- Atkinson, L. and Rosenthal, S. (2014) 'Signaling the green sell: The influence of eco-label source, argument specificity, and product involvement on consumer trust', *Journal of Advertising*, 43(1), pp. 33-45.
- Atlantic (2015) *Our customer service guarantee*. Available at: <https://www.atlantic.co.uk/uploadedFiles/CoreMarketingSites/Assets/Documents/CustomerServiceGuaranteeATL.pdf> (Accessed: 4 July 2015)
- Aurier, P. and Siadou-Martin, B. (2007) 'Perceived justice and consumption experience evaluations. A quantitative and experimental investigation', *International Journal of Service Industry Management*, 18(5), pp. 450-471.
- AutoRestore (2015) *Vehicle damage? We'll fix it*. Available at: <http://www.autoestor.co.uk/> (Accessed: 7 October 2015).
- Bagozzi, R.P. (1994) 'Structural equation models in marketing research: basic principles', in Bagozzi, R. (Ed.) *Principles of Marketing Research*. Oxford: Blackwell, pp. 317-385.
- Bansal, H.S., Irving, P.G. and Taylor, S.F. (2004) 'A three-component model of customer commitment to service providers', *Journal of the Academy of Marketing Science*, 32(3), pp. 234-250.
- Baron, R.M. and Kenny, D.A. (1986) 'The moderator-mediator variable distinction in Social Psychological research: conceptual, strategic and statistical considerations', *Journal of Personality and Social Psychology*, 51(6), pp. 1173-1182.
- Basuroy, S., Desai, K.K. and Talukdar, D. (2006) 'An empirical investigation of signaling in the motion picture industry', *Journal of Marketing Research*, 43(2), pp. 287-295.
- BBC News (2015) *HSBC bank 'helped clients dodge millions in tax'*. Available at: <http://www.bbc.co.uk/news/business-31248913> (Accessed: 7 October 2015)

## References

- BBC News (2015) *Npower worst for customer complaints in 2014*. Available at: <http://www.bbc.co.uk/news/business-31437217> (Accessed: 7 October 2015).
- BBC News (2015) *Virgin starts automatic compensation for train delays*. Available at: <http://www.bbc.co.uk/news/business-34424729> (Accessed: 7 October 2015).
- Becker, H.S. (1960) 'Notes on the concept of commitment', *American Journal of Sociology*, 66(1), pp. 32-40.
- Bergkvist, L. and Rossiter, J.R. (2007) 'The predictive validity of multiple-item versus single-item measures of the same constructs', *Journal of Marketing Research*, 44(2), pp. 175-184.
- Berman, B. and Mathur, A. (2014) 'Planning and implementing effective service guarantee programs', *Business Horizons*, 57(1), pp. 107-116.
- Berry, L.L. and Parasuraman, A. (1997) 'Listening to the customer – The concept of a service-quality information system', *Sloan Management Review*, 38(3), pp. 65-76.
- Bhattacharya, S. (1980) 'Nondissipative signaling structures and dividend policy', *Quarterly Journal of Economics*, 95(1), pp. 1-24.
- Bies, R.J. and Moag, J.S. (1986) 'Interactional justice: Communication criteria of fairness', in Lewicki, R.J., Sheppard, B.H. and Bazerman M.H. (eds.) *Research on negotiation in organizations*, Vol. 1. Greenwich, CT: JAI Press, pp. 43-55.
- Biswas, A., Pullig, C., Yagci, M.I. and Dean, D.H. (2002) 'Consumer evaluation of low price guarantees: The moderating role of reference price and store image', *Journal of Consumer Psychology*, 12(2), pp. 107-118.
- Bitner, M.J., Booms, B.H. and Tetreault, M.S. (1990) 'The service encounter: Diagnosing favorable and unfavorable incidents', *Journal of Marketing*, 54(1), pp. 71-84.
- Björölin Lidén, S. and Edvardsson, B. (2003) 'Customer expectations on service guarantees', *Managing Service Quality*, 13(5), pp. 338-348.
- Björölin Lidén, S. and Skälén, P. (2003) 'The effect of service guarantees on service recovery', *International Journal of Service Industry Management*, 14(1), pp. 36-58.
- Blaikie, N. (2007) *Approaches to social enquiry*. 2<sup>nd</sup> edn. Cambridge: Polity.
- Blodgett, J.G. and Anderson, R.D. (2000) 'A bayesian network model of the consumer complaint process', *Journal of Service Research*, 2(4), pp. 321-338.
- Blodgett, J.G., Granbois, D.H. and Walters, R.G. (1993) 'The effects of perceived justice on complainants' negative word-of-mouth behavior and repatronage intentions', *Journal of Retailing*, 69(4), pp. 399-428.
- Blodgett, J.G., Hill, D.J. and Tax, S.S. (1997) 'The effects of distributive, procedural, and interactional justice on postcomplaint behaviour', *Journal of Retailing*, 73(2), pp. 185-210.
- Bloom, P.N. and Reve, T. (1990) 'Transmitting signals to consumers for competitive advantage', *Business Horizons*, 33(4), pp. 58-66.
- Bolton, R.N. and Drew, J.H. (1995) 'Factors influencing customers' assessment of service quality and their invocation of a service warranty', in Swartz, T.A., Bowen, D.E. and Brown, S.W. (eds.) *Advances in Services Marketing and Management*, Vol. 4, Greenwich, CT: JAI Press, pp. 195-210.
- Bonifield, C. and Cole, C.A. (2008) 'Better him than me: social comparison theory and service recovery', *Journal of the Academy of Marketing Science*, 36(4), pp. 565-577.
- Bonifield, C., Cole, C. and Schultz, R.L. (2010) 'Product returns on the Internet: A case of mixed signals?', *Journal of Business Research*, 63(9-10), pp. 1058-1065.
- Boshoff, C. and Leong, J. (1998) 'Empowerment, attribution and apologising as dimensions of service recovery: An experimental study', *International Journal of Service Industry Management*, 9(1), pp. 24-47.

- Bougie, R., Pieters, R., and Zeelenberg, M. (2003) 'Angry customers don't come back, they get back: The experience and behavioral implications of anger and dissatisfaction in services', *Journal of the Academy of Marketing Science*, 31(4), pp. 377-393.
- Boulding, W. and Kirmani, A. (1993) 'A consumer-side experimental examination of signaling theory: Do consumers perceive warranties as signals of quality?', *Journal of Consumer Research*, 20(1), pp. 111-123.
- Brady M.K., Cronin Jr., J.J., Fox, G.L. and Roehm, M.L. (2008) 'Strategies to offset performance failures: The role of brand equity', *Journal of Retailing*, 84(2), pp. 151-164.
- Brocato, E.D., Voorhees, C.M. and Baker, J. (2012) 'Understanding the influence of cues from other customers in the service experience: A scale development and validation', *Journal of Retailing*, 88(3), pp. 384-398.
- Bryman, A. and Bell, E. (2011) *Business Research Methods*. 3<sup>rd</sup> edn. New York: Oxford University Press.
- Callan, R.J. and Moore, J. (1998) 'Service guarantee: A strategy for service recovery', *Journal of Hospitality & Tourism Research*, 22(1), pp. 56-71.
- Cambra-Fierro, J., Melero-Polo, I. and Sese, J. (2015) 'Does the nature of the relationship really matter? An analysis of the roles of loyalty and involvement in service recovery processes', *Service Business*, 9(2), pp. 297-320.
- Campbell, M.C. (1999) 'Perceptions of price unfairness: Antecedents and consequences', *Journal of Marketing Research*, 36(2), pp. 187-199.
- Chatterjee, S., Kang, Y.S. and Mishra, D.P. (2005) 'Market signals and relative preference: the moderating effects of conflicting information, decision focus, and need for cognition', *Journal of Business Research*, 58(10), pp. 1362-1370.
- Chaudhuri, A. and Holbrook, M.B. (2001) 'The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty', *Journal of Marketing*, 65(2), pp. 81-93.
- Chebat, J.C. and Slusarczyk, W. (2005) 'How emotions mediate the effects of perceived justice on loyalty in service recovery situations: an empirical study', *Journal of Business Research*, 58(5), pp. 664-673.
- Chen, X.J., John, G., Hays, J.M., Hill, A.V. and Geurs, S.E. (2009) 'Learning from a service guarantee quasi experiment', *Journal of Marketing Research*, 46(5), pp. 584-596.
- Chin, W.W. (1998) 'The partial least squares approach to structural equation modeling', in Marcoulides, G.A. (ed.) *Modern Methods of Business Research*. London: Lawrence Erlbaum Associates, pp. 295-333.
- Chin, W.W. (2000) 'Partial Least Squares for IS Researchers: An overview and presentation of recent advances using the PLS approach', *ICIS 2000 Proceedings*.
- Chin, W.W. (2010) 'How to write up and report PLS analyses', in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (eds.) *Handbook of Partial Least Squares*. Berlin: Springer-Verlag, pp. 655-690.
- Chin, W.W., Marcolin, B.L. and Newsted, P.R. (2003) 'A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study', *Information Systems Research*, 14(2), pp. 189-217.
- Chiou, J.S., Droge, C. and Hanvanich, S. (2002) 'Does customer knowledge affect how loyalty is formed?', *Journal of Service Research*, 5(2), pp. 113-124.
- ChipsAway (2015) *Repair Guarantee*. Available at: <http://www.chipsaway.co.uk/repair-guarantee/> (Accessed: 7 October 2015).

- Choi, B. and Choi, B.J. (2014) 'The effects of perceived service recovery justice on customer affection, loyalty, and word-of-mouth', *European Journal of Marketing*, 48(1/2), pp. 108-131.
- Citizensadvice.org.uk (2015) *Getting help from a motor trade association*. Available at: <http://www.citizensadvice.org.uk/consumer/buying-or-repairing-a-car/motor-industry-associations/> (Accessed: 7 October 2015).
- Clark, L.A. and Watson, D. (1995) 'Constructing validity: basic Issues in objective scale development', *Psychological Assessment*, 7(3), pp. 309-319.
- Coelho, P.S. and Henseler, J. (2012) 'Creating customer loyalty through service customization', *European Journal of Marketing*, 46(3/4), pp. 331-356.
- Cohen, J. (1988) *Statistical power analysis for the behavioural sciences*. 2<sup>nd</sup> edn. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cohen-Charash, Y. and Spector, P.E. (2000) 'The role of justice in organizations: A meta-analysis', *Organizational Behavior and Human Decision Processes*, 86(2), pp. 278-321.
- Collie, T.T., Bradley, G. and Sparks, B.A. (2002) 'Fair process revisited: Differential effects of interactional and procedural justice in the presence of social comparison equity information', *Journal of Experimental Social Psychology*, 38(6), pp. 545-555.
- Colquitt, J.A. (2001) 'On the dimensionality of organizational justice: a construct validation of a measure', *Journal of Applied Psychology*, 86(3), pp. 386-400.
- Colquitt, J.A., Scott, B.A. and LePine, J.A. (2007) 'Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance', *Journal of Applied Psychology*, 92(4), pp. 909-927.
- Colquitt, J.A., Wesson, M.J., Porter, C.O.L.H., Conlon, D.E. and Ng, K.Y. (2001) 'Justice at the millennium: A meta-analytic review of 25 years of organizational justice research', *Journal of Applied Psychology*, 86(3), pp. 425-445.
- Conlon, D.E. and Murray, N.M. (1996) 'Customer perceptions of corporate responses to product complaints: the role of explanations', *Academy of Management Journal*, 39(4), pp. 1040-1056.
- Connelly, B.L., Certo, S.T., Ireland, R.D. and Reutzel, C.R. (2011) 'Signaling theory: A review and assessment', *Journal of Management*, 37(1), pp. 39-67.
- Corley, K.G. and Gioia, D.A. (2011) 'Building theory about theory building: What constitutes a theoretical contribution?', *Academy of Management Review*, 36(1), pp. 12-32.
- Crisafulli, B. and Singh, J. (2015) 'Service guarantee as a recovery strategy: The impact of guarantee terms on perceived justice and inferred motives', *Journal of Service Management* (forthcoming).
- Cronbach, L.J. (1987) 'Statistical tests for moderator variables: Flaws in analyses recently proposed', *Psychological Bulletin*, 102(3), pp. 414-417.
- Cropanzano, R., Byrne, Z.S., Bobocel, D.R. and Rupp, D.E. (2001) 'Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice', *Journal of Vocational Behavior*, 58(2), pp. 164-209.
- Crosby, L.A., Evans, K.R. and Cowles, D. (1990) 'Relationship quality in services selling: An interpersonal influence perspective', *Journal of Marketing*, 54(3), pp. 68-81.
- Dagger, T.S., Danaher, P.J., Sweeney, J.C. and McColl-Kennedy, J.R. (2013) 'Selective halo effects arising from improving the interpersonal skills of frontline employees', *Journal of Service Research*, 16(4), pp. 488-502.
- Davidow, M. (2003) 'Organizational responses to customer complaints: What works and what doesn't', *Journal of Service Research*, 5(3), pp. 225-250.

- Dawar, N. and Parker, P. (1994) 'Marketing universals: Consumers' use of brand name, price, physical appearance, and retailer reputation as signals of product quality', *Journal of Marketing*, 58(2), pp. 81-95.
- Dean, D.H. and Lang, J.M. (2008) 'Comparing three signals of service quality', *Journal of Services Marketing*, 22(1), pp. 48-58.
- del Río-Lanza, A.B., Vázquez-Casielles, R. and Díaz-Martín, A.M. (2009) 'Satisfaction with service recovery: perceived justice and emotional responses', *Journal of Business Research*, 62(8), pp. 775-781.
- deMatos, C.A., Henrique, J.L. and Rossi, C.A.V. (2007) 'Service recovery paradox: A meta-analysis', *Journal of Service Research*, 10(1), pp. 60-77.
- Department of Trade and Industry (2002) 'Car servicing and repairs'. Available at: <http://webarchive.nationalarchives.gov.uk/20040117000235/dti.gov.uk/ccp/publications/htm> (Accessed: 7 October 2015)
- Deutsch, M. (1975) 'Equity, equality, and need: What determines which value will be used as the basis of distributive justice?', *Journal of Social Issues*, 31(3), pp. 137-149.
- DeWitt, T., Nguyen, D.T. and Marshall, R. (2008) 'Exploring customer loyalty following service recovery: the mediating effects of trust and emotions', *Journal of Service Research*, 10(3), pp. 269-281.
- Diamantopoulos, A. (1999) 'Viewpoint. Export performance measurement: reflective versus formative indicators', *International Marketing Review*, 16(6), pp. 444-457.
- Diamantopoulos, A., Sarstedt, M., Fuchs, C., Wilczynski, P. and Kaiser, S. (2012) 'Guidelines for choosing between multi-item and single-item scales for construct measurement: a predictive validity perspective', *Journal of the Academy of Marketing Science*, 40(3), pp. 434-449.
- Doney, P.M. and Cannon, J.P. (1997) 'An examination of the nature of trust in buyer-seller relationships', *Journal of Marketing*, 61(2), pp. 35-51.
- Dutta, S. and Biswas, A. (2005) 'Effects of low price guarantees on consumer post-purchase search intention: The moderating roles of value consciousness and penalty level', *Journal of Retailing*, 81(4), pp. 283-291.
- Dutta, S., Biswas, A. and Grewal, D. (2007) 'Low price signal default: an empirical investigation of its consequences', *Journal of the Academy of Marketing Science*, 35(1), pp. 76-88.
- Edvardsson, B., Meiren, T., Schäfer, A. and Witell, L. (2013) 'Having a strategy for new service development – does it really matter?', *Journal of Service Management*, 24(1), pp. 25-44.
- Edvardsson, B., Tronvoll, B. and Höykinpuro, R. (2011) 'Complex service recovery processes: how to avoid triple deviation', *Managing Service Quality*, 21(4), pp. 331-349.
- Engelland, B.T., Alford, B.L. and Taylor, R.D. (2001) 'Cautions and precautions on the use of 'borrowed' scales in marketing research', *Proceedings of the Annual Meeting of the Society for Marketing Advances*, New Orleans, LA, 6-10 November, pp. 152-153.
- Erdem, T. and Swait, J. (1998) 'Brand equity as a signaling phenomenon', *Journal of Consumer Psychology*, 7(2), pp. 131-157.
- Estelami, H. (2000) 'Competitive and procedural determinants of delight and disappointment in consumer complaint outcomes', *Journal of Service Research*, 2(3), pp. 285-300.
- Evanschitzky, H., Brock, C. and Blut, M. (2011) 'Will you tolerate this? The impact of affective commitment on complaint intention and postrecovery behavior', *Journal of Service Research*, 14(4), pp. 410-425.

- Fang, X., Gammoh, B.S. and Voss, K.E. (2013) 'Building brands through brand alliances: combining warranty information with a brand ally', *Journal of Product & Brand Management*, 22(2), pp. 153-160.
- Fang, Z., Luo, X. and Jiang, M. (2013) 'Quantifying the dynamic effects of service recovery on customer satisfaction: Evidence from Chinese mobile phone markets', *Journal of Service Research*, 16(3), pp. 341-355.
- Faul, F., Erdfelder, E., Buchner, A. and Lang, A.G. (2009) 'Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses', *Behavior Research Methods*, 41(4), pp. 1149-1160.
- Field, A. (2009) *Discovering statistics using SPSS*. 3<sup>rd</sup> edn. London: SAGE.
- Field, A. and Hole, G. (2003) *How to design and report experiments*. London: SAGE.
- Financial Services Authority (2007) 'Treating customers fairly – a guide to management information'. Available at: <http://www.fca.org.uk/your-fca/documents/fca--treating-customers-fairly--guide-to-management-information> (Accessed: 7 October 2015).
- Financial Services Consumer Panel (2014) 'Annual report 2013/2014'. Available at: <http://www.fs-cp.org.uk> (Accessed: 7 October 2015).
- Folger, R. and Konovsky, M.A. (1989) 'Effects of procedural and distributive justice on reactions to pay raise decisions', *Academy of Management Journal*, 32(1), pp. 115-130.
- Folkes, V.S. (1984) 'Consumer reactions to product failure: An attributional approach', *Journal of Consumer Research*, 10(4), pp. 398-409.
- Fombrun, C.J., Gardberg, N.A. and Sever, J.M. (2000) 'The reputation quotient: A multi-stakeholder measure of corporate reputation', *Journal of Brand Management*, 7(4), pp. 241-255.
- Fornell, C. and Larcker, D.F. (1981) 'Structural equation models with unobservable variables and measurement error: Algebra and statistics', *Journal of Marketing Research*, 18(3), pp. 382-388.
- Fortin, M. (2008) 'Perspectives on organizational justice: Concept clarification, social context integration, time and links with morality', *International Journal of Management Reviews*, 10(2), pp. 93-126.
- Fullerton, G. (2005) 'How commitment both enables and undermines marketing relationships', *European Journal of Marketing*, 39(11/12), pp. 1372-1388.
- Gabbott, M., Tsarenko, Y. and Mok, W.H. (2011) 'Emotional intelligence as a moderator of coping strategies and service outcomes in circumstances of service failures', *Journal of Service Research*, 14(2), pp. 234-248.
- Ganesan, S. (1994) 'Determinants of long-term orientation in buyer-seller relationships', *Journal of Marketing*, 58(2), pp. 1-19.
- Ganesan, S. and Hess, R. (1997) 'Dimensions and levels of trust: Implications for commitment to a relationship', *Marketing Letters*, 8(4), pp. 439-448.
- Garbarino, E. and Johnson, M.S. (1999) 'The different roles of satisfaction, trust, and commitment in customer relationships', *Journal of Marketing*, 63(2), pp. 70-87.
- Gefen, D. and Straub, D. (2005) 'A practical guide to factorial validity using PLS Graph: Tutorial and annotated example', *Communications of the Association for Information Systems*, 16(5), pp. 90-109.
- Geisser, S. (1974) 'A predictive approach to the random effect model', *Biometrika*, 61(1), pp. 101-107.
- Gelbrich, K. (2010) 'Anger, frustration, and helplessness after service failure: Coping strategies and effective informational support', *Journal of the Academy of Marketing Science*, 38(5), pp. 567-585.

- Gelbrich, K., Gäthke, J. and Grégoire, Y. (2015) 'How much compensation should a firm offer for a flawed service? An examination of the nonlinear effects of compensation on satisfaction', *Journal of Service Research*, 18(1), pp. 107-123.
- Gelbrich, K. and Roschk, H. (2011) 'Do complainants appreciate overcompensation? A meta-analysis on the effect of simple compensation vs. overcompensation on post-complaint satisfaction', *Marketing Letters*, 22(1), pp. 31-47.
- Goodwin, C. and Ross, I. (1989) 'Salient dimensions of perceived fairness in resolution of service complaints', *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 2(1), pp. 89-92.
- Goodwin, C. and Ross, I. (1990) 'Consumer evaluations of responses to complaints: What's fair and why', *Journal of Services Marketing*, 4(3), pp. 53-61.
- Goodwin, C. and Ross, I. (1992) 'Consumer responses to service failures: Influence of procedural and interactional fairness perceptions', *Journal of Business Research*, 25(2), pp. 149-163.
- Gouldner, A.W. (1960) 'The norm of reciprocity: A preliminary statement', *American Sociological Review*, 25(2), pp. 161-178.
- Greenberg, J. (1990) 'Employee theft as a reaction to underpayment inequity: The hidden cost of pay cuts', *Journal of Applied Psychology*, 75(5), pp. 561-568.
- Greenberg, J. (1996) 'Forgive me, I knew: three experimental demonstrations of the effects of attempts to excuse poor performance', *Organizational Behavior and Human Decision Processes*, 66(2), pp. 165-178.
- Grégoire, Y. and Fisher, R.J. (2008) 'Customer betrayal and retaliation: When your best customers become your worst enemies', *Journal of the Academy of Marketing Science*, 36(2), pp. 247-261.
- Grégoire, Y., Laufer, D. and Tripp, T.M. (2010) 'A comprehensive model of customer direct and indirect revenge: understanding the effects of perceived greed and customer power', *Journal of the Academy of Marketing Science*, 38(6), pp. 738-758.
- Grewal, D., Baker, J., Levy, M. and Voss, G.B. (2003) 'The effects of wait expectations and store atmosphere evaluations on patronage intentions in service-intensive retail stores', *Journal of Retailing*, 79(4), pp. 259-268.
- Grewal, D., Roggeveen, A.L. and Tsiros, M. (2008) 'The effect of compensation on repurchase intentions in service recovery', *Journal of Service Research*, 84(4), pp. 424-434.
- Grönroos, C. (1990) *Service Management and Marketing*. Massachusetts/Toronto: Lexington Books.
- Guide, V.D.R. and Ketokivi, M. (2015) 'Notes from the editors: Redefining some methodological criteria for the journal', *Journal of Operations Management*, 37(1), pp. v-viii.
- Haenlein, M. and Kaplan, A.M. (2004) 'A beginner's guide to partial least squares analysis', *Understanding Statistics*, 3(4), pp. 283-297.
- Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014) *A primer on partial least squares structural equation modeling (PLS-SEM)*. London: SAGE Publications.
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) 'PLS-SEM: Indeed a silver bullet', *Journal of Marketing Theory and Practice*, 19(2), pp. 139-152.
- Hair, J.F., Sarstedt, M., Ringle, C.M. and Mena, J.A. (2012) 'An assessment of the use of partial least squares structural equation modeling in marketing research', *Journal of the Academy of Marketing Science*, 40(3), pp. 414-433.
- Hansen, T. (2012) 'Understanding trust in financial services: The influence of financial healthiness, knowledge, and satisfaction', *Journal of Service Research*, 15(3), pp. 280-295.

- Harrison-Walker, L.J. (2001) 'The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents', *Journal of Service Research*, 4(1), pp. 60-75.
- Hart, C.W.L. (1988) 'The power of unconditional service guarantees', *Harvard Business Review*, July, pp. 54-62.
- Hart, C.W.L., Heskett, J.L. and Sasser Jr., W.E. (1990) 'The profitable art of service recovery', *Harvard Business Review*, 68(4), pp. 148-156.
- Hart, C.W.L., Schlesinger, L.A. and Maher, D. (1992) 'Guarantees come to professional service firms', *Sloan Management Review*, 33(3), pp. 19-29.
- Heider, F. (1958) *The Psychology of Interpersonal Relationships*. New York: John Wiley.
- Henseler, J. and Chin, W.W. (2010) 'A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling', *Structural Equation Modeling*, 17(1), pp. 82-109.
- Henseler, J. and Fassott, G. (2010) 'Testing moderating effects in PLS path models: An illustration of available procedures', in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (eds.) *Handbook of Partial Least Squares*. Berlin: Springer-Verlag, pp. 713-735.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015) 'A new criterion for assessing discriminant validity in variance-based structural equation modeling', *Journal of the Academy of Marketing Science*, 43(1), pp. 115-135.
- Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009) 'The use of partial least squares path modeling in international marketing', in Sinkovics, R.R. and Ghauri, P.N. (eds.) *Advances in International Marketing*, Volume 20. Emerald Group Publishing Limited, pp. 277-320.
- Henseler, J., Wilson, B., Götz, O. and Hautvast, C. (2007) 'Investigating the moderating role of fit on sports sponsorship and brand equity', *International Journal of Sports Marketing & Sponsorship*, 8(4), pp. 321-329.
- Herbig, P. and Milewicz, J. (1993) 'The relationship of reputation and credibility to brand success', *Journal of Consumer Marketing*, 10(3), pp. 18-24.
- Herbig, P. and Milewicz, J. (1994) 'Marketing signals in service industries', *Journal of Services Marketing*, 8(2), pp. 19-35.
- Hess Jr, R.L. (2008) 'The impact of firm reputation and failure severity on customers' responses to service failures', *Journal of Services Marketing*, 22(5), pp. 385-398.
- Hess Jr., R.L., Ganesan, S. and Klein, N.M. (2003) 'Service failure and recovery: The impact of relationship factors on customer satisfaction', *Journal of the Academy of Marketing Science*, 31(2), pp. 127-145.
- Ho, H.D., Ganesan, S. and Oppewal, H. (2011) 'The impact of store-price signals on consumer search and store evaluation', *Journal of Retailing*, 87(2), pp. 127-141.
- Hogarth, R. M. and Einhorn, H. J. (1992) 'Order effects in belief updating: The belief-adjustment model', *Cognitive Psychology*, 24(1), pp. 1-55.
- Hogreve, J. and Gremler, D.D. (2009) 'Twenty years of service guarantee research: A synthesis', *Journal of Service Research*, 11(4), pp. 322-343.
- Holloway, B.B. and Beatty, S.E. (2003) 'Service failure in online retailing: A recovery opportunity', *Journal of Service Research*, 6(1), pp. 92-105.
- Homans, G.C. (1961) *Social behaviour. Its elementary forms*. London: Routledge & Kegan Paul.
- Homburg, C. and Fürst, A. (2005) 'How organizational complaint handling drives customer loyalty: an analysis of the mechanistic and the organic approach', *Journal of Marketing*, 69(3), pp. 95-114.



- Hui, M.K. and Au, K. (2001) 'Justice perceptions of complaint-handling. A cross-cultural comparison between PRC and Canadian customers', *Journal of Business Research*, 52(2), pp. 161-173.
- Hulland, J., Ryan, M.J. and Rayner, R.K. (2010) 'Modeling customer satisfaction: A comparative performance evaluation of covariance structure analysis versus partial least squares', in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (eds.) *Handbook of Partial Least Squares*. Berlin: Springer-Verlag, pp. 307-325.
- Institute of Customer Service (2014) 'Institute of Customer Service response to the Public Administration Select Committee 'More complaints please!' report'. Available at: <http://instituteofcustomerservice.com/category/complaint-handling/> (Accessed: 7 July 2015)
- International Monetary Fund (2014) 'Not Your Father's Service Sector'. Available at: <http://www.imf.org/external/index.htm> (Accessed: 14 April 2015).
- Jha, S., Deitz, G.D., Babakus, E. and Yavas, U. (2013) 'The role of corporate image for quality in the formation of attitudinal service loyalty', *Journal of Service Research*, 16(2), pp. 155-170.
- Jin, L. and He, Y. (2013) 'Designing service guarantees with construal fit: effects of temporal distance on consumer responses to service guarantees', *Journal of Service Research*, 16(2), pp. 202-215.
- Johnson, D. and Grayson, K. (2005) 'Cognitive and affective trust in service relationships', *Journal of Service Research*, 58(4), pp. 500-507.
- Johnson-George, C. and Swap, W.C. (1982) 'Measurement of specific interpersonal trust: Construction and validation of a scale to assess trust in a specific other', *Journal of Personality and Social Psychology*, 43(6), pp. 1306-1317.
- Joireman, J., Grégoire, Y., Devezer, B. and Tripp, T.M. (2013) 'When do customers offer firms a "second chance" following a double deviation? The impact of inferred firm motives on customer revenge and reconciliation', *Journal of Retailing*, 89(3), pp. 315-337.
- Jöreskog, K.G. and Wold, H. (1982) 'The ML and PLS techniques for modeling with latent variables: historical and competitive aspects', in Jöreskog, K.G. and Wold, H. (eds.) *Systems under indirect observation*, Part 1. Amsterdam: North-Holland, pp. 263-270.
- Kalafatis, S.P., Sarpong, S. and Sharif, K.J. (2005) 'An examination of the stability of operationalizations of multi-item marketing scales', *International Journal of Market Research*, 47(3), pp. 255-266.
- Kalamas, M., Laroche, M. and Makdessian, L. (2008) 'Reaching the boiling point: Consumers' negative affective reactions to firm-attributed service failures', *Journal of Business Research*, 61(8), pp. 813-824.
- Kandampully, J. and Butler, L. (2001) 'Service guarantees: a strategic mechanism to minimise customers' perceived risk in service organisations', *Managing Service Quality*, 11(2), pp. 112-121.
- Karande, K., Magnini, V.P. and Tam, L. (2007) 'Recovery voice and satisfaction after service failure. An experimental investigation of mediating and moderating factors', *Journal of Service Research*, 10(2), pp. 187-203.
- Kau, A.K. and Loh, E.W.Y. (2006) 'The effects of service recovery on consumer satisfaction: a comparison between complainants and non-complainants', *Journal of Services Marketing*, 20(2), pp. 101-111.
- Keiningham, T.L., Morgeson III, F.V., Aksoy, L. and Williams, L. (2014) 'Service failure severity, customer satisfaction, and market share: An examination of the airline industry', *Journal of Service Research*, 17(4), pp. 415-431.
- Kelley, S.W. and Davies, M.A. (1994) 'Antecedents to customer expectations for service recovery', *Journal of the Academy of Marketing Science*, 22(1), pp. 52-61.

- Khan, J. (2011) 'Validation in marketing experiments revisited', *Journal of Business Research*, 64(7), pp. 687-692.
- Kim, P.H., Dirks, K.T. and Cooper, C.D. (2009) 'The repair of trust: A dynamic bilateral perspective and multilevel conceptualization', *Academy of Management Review*, 34(3), pp. 401-422.
- Kim, T.T., Kim, W.G. and Kim, H.B. (2009) 'The effects of perceived justice on recovery satisfaction, trust, word-of-mouth, and revisit intention in upscale hotels', *Tourism Management*, 30(1), pp. 51-62.
- Kirmani, A. (1990) 'The effect of perceived advertising costs on brand perceptions', *Journal of Consumer Research*, 17(2), pp. 160-171.
- Kirmani, A. and Rao, A.R. (2000) 'No pain, no gain: A critical review of the literature on signaling unobservable product quality', *Journal of Marketing*, 64(2), pp. 66-79.
- Kramer, R.M. (1999) 'Trust and distrust in organizations: Emerging perspectives, enduring questions', *Annual Review of Psychology*, 50, pp. 569-598.
- Kristensen, K. and Eskildsen, J. (2010) 'Design of PLS-based satisfaction studies', in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (eds.) *Handbook of Partial Least Squares*. Berlin: Springer-Verlag, pp. 247-277.
- Kukar-Kinney, M. and Walters, R.G. (2003) 'Consumer perceptions of refund depth and competitive scope in price-matching guarantees: effects on store patronage', *Journal of Retailing*, 79(3), pp. 153-160.
- Kukar-Kinney, M., Xia, L. and Monroe, K.B. (2007) 'Consumers' perceptions of the fairness of price-matching refund policies', *Journal of Retailing*, 83(3), pp. 325-337.
- Larzelere, R.E. and Huston, T.L. (1980) 'The dyadic trust scale: Toward understanding interpersonal trust in close relationships', *Journal of Marriage and the Family*, 42(3), pp. 595-604.
- Leventhal, G.S. (1980) 'What should be done with equity theory? New approaches to the study of fairness in social relationships. New approaches to the study of fairness in social relationships', in Gergen, K.J., Greenberg, M.S. and Willis, R.H. (eds.) *Social exchange: Advances in theory and research*. New York: Springer-Verlag US, pp. 27-55.
- Lewis, J.D. and Weigert, A. (1985) 'Trust as a social reality', *Social Forces*, 63(4), pp. 967-985.
- Liang, H., Saraf, N., Hu, Q. and Xue, Y. (2007) 'Assimilation of enterprise systems: The effect of institutional pressures and the mediating role of top management', *MIS Quarterly*, 31(1), pp. 59-87.
- Liao, H. (2007) 'Do it right this time: the role of employee service recovery performance in customer-perceived justice and customer loyalty after service failures', *Journal of Applied Psychology*, 92(2), pp. 475-489.
- Lind, E.A. and Tyler, T.R. (1988) 'Procedural justice in organizations', in Lind, E.A. and Tyler, T.R. (eds.) *The social psychology of procedural justice*. New York: Springer Science-Business Media, pp. 173-202.
- Lohmöller, J.B. (1989) *Latent variables path modeling with partial least squares*. Heidelberg: Physica.
- Lynch Jr., J.G. (1982) 'On the external validity of experiments in consumer research', *Journal of Consumer Research*, 9(3), pp. 225-239.
- Magnini, V.P., Ford, J.B., Markowski, E.P. and Honeycutt Jr., E.D. (2007) 'The service recovery paradox: Justifiable theory or smoldering myth?', *Journal of Services Marketing*, 21(3), pp. 213-225.
- Malhotra, N.K. and Birks, D.F. (2007) *Marketing research: An applied approach*. 3<sup>rd</sup> edn. Harlow: Financial Times Prentice Hall.

- Malhotra, N.K., Birks, D.F. and Wills, P.A. (2013) *Essentials of Marketing Research*. Harlow: Pearson.
- Malhotra, N.K., Kim, S.S. and Patil, A. (2006) 'Common method variance in IS Research: A comparison of alternative approaches and reanalysis of past research', *Management Science*, 52(12), pp. 1865-1883.
- Masterson, S.S., Lewis, K., Goldman, B.M. and Taylor, M.S. (2000) 'Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships', *The Academy of Management Journal*, 43(4), pp. 738-748.
- Mattila, A.S. (2004) 'The impact of service failures on customer loyalty: The moderating role of affective commitment', *International Journal of Service Industry Management*, 15(2), pp. 134-149.
- Mattila, A.S. (2006) 'The power of explanations in mitigating the ill-effects of service failures', *Journal of Services Marketing*, 20(7), pp. 422-428.
- Mattila, A. and Cranage, D. (2005) 'The impact of choice on fairness in the context of service recovery', *Journal of Services Marketing*, 19(5), pp. 271-279.
- Mattila, A.S. and Patterson, P.G. (2004) 'The impact of culture on consumers' perceptions of service recovery efforts', *Journal of Retailing*, 80(3), pp. 196-206.
- Maxham III, J.G. (2001) 'Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions', *Journal of Business Research*, 54(1), pp. 11-24.
- Maxham III, J.G. and Netemeyer, R.G. (2002) 'Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent', *Journal of Retailing*, 78(4), pp. 239-252.
- Maxham III, J.G., and Netemeyer, R.G. (2003) 'Firms reap what they sow: the effects of shared values and perceived organizational justice on customers' evaluations of complaint handling', *Journal of Marketing*, 67(1), pp. 46-62.
- Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995) 'An integrative model of organizational trust', *Academy of Management Review*, 20(3), pp. 709-734.
- Mayer, R.C. and Schoorman, F.D. (1992) 'Predicting participation and production outcomes through a two-dimensional model of organizational commitment', *Academy of Management Journal*, 35(3), pp. 671-684.
- Mayr, S., Buchner, A., Erdfelder, E. and Faul, F. (2007) 'A short tutorial of GPower', *Tutorials in Quantitative Methods for Psychology*, 3(2), pp. 51-59.
- McAllister, D.J. (1995) 'Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations', *The Academy of Management Journal*, 38(1), pp. 24-59.
- McCull-Kennedy, J.R. and Sparks, B.A. (2003) 'Application of fairness theory to service failures and service recovery', *Journal of Service Research*, 5(3), pp. 251-266.
- McCull-Kennedy, J.R., Sparks, B.A. and Nguyen, D.T. (2011) 'Customer's anger voice: Targeting employees or the firm?', *Journal of Business Research*, 64(7), pp. 707-713.
- McCullough, M.A., Berry, L.L. and Yadav, M.S. (2000) 'An empirical investigation of customer satisfaction after service failure and recovery', *Journal of Service Research*, 3(2), pp. 121-137.
- McCullough, M.A. and Bharadwaj, S.G. (1992) 'The Recovery Paradox: An Examination of Consumer Satisfaction in Relation to Disconfirmation, Service Quality, and Attribution Based Theories', in Allen, C.T. et al. (eds.) *Marketing Theory and Applications*. Chicago: American Marketing Association, p. 119.
- McCullough, M.A. and Gremler, D.D. (1999) 'Guaranteeing student satisfaction: An exercise in treating students as customers', *Journal of Marketing Education*, 21(2), pp. 118-130.

- McCollough, M.A. and Gremler, D.D. (2004) 'A conceptual model and empirical examination of the effect of service guarantees on post-purchase consumption evaluations', *Managing Service Quality*, 14(1), pp. 58-74.
- McDougall, G.H.G., Levesque, T. and VanderPlaat, P. (1998) 'Designing the service guarantee: unconditional or specific?', *Journal of Services Marketing*, 12(4), pp. 278-293.
- McQuilken, L., McDonald, H. and Vocino, A. (2013) 'Is guarantee compensation enough? The important role of fix and employee effort in restoring justice', *International Journal of Hospitality Management*, 33(1), pp. 41-50.
- Meyer, J., Gremler, D.D. and Hogueve, J. (2014) 'Do service guarantees guarantee greater market value?', *Journal of Service Research*, 17(2), pp. 150-163.
- Michel, S. (2001) 'Analyzing service failures and recoveries: A process approach', *International Journal of Service Industry Management*, 12(1), pp. 20-33.
- Mintel (2014) 'Car Service and Maintenance'. Available at: <http://academic.mintel.com.ezproxy.kingston.ac.uk/display/725058/> (Accessed: 30 June 2015).
- Mitra, K., Reiss, M.C. and Capella, L.M. (1999) 'An examination of perceived risk, information search and behavioral intentions in search, experience and credence services', *Journal of Services Marketing*, 13(3), pp. 208-228.
- Moorman, C., Zaltman, G. and Deshpande, R. (1992) 'Relationships between providers and users of market research: The dynamics of trust within and between organizations', *Journal of Marketing Research*, 29(3), pp. 314-328.
- Morgan, R.M. and Hunt, S.D. (1994) 'The commitment-trust theory of relationship marketing', *Journal of Marketing*, 58(3), pp. 20-38.
- Morrow Jr., J.L., Hansen, M.H. and Pearson, A.W. (2004) 'The cognitive and affective antecedents of general trust within cooperative organizations', *Journal of Managerial Issues*, 16(1), pp. 48-64.
- Mortimer, K. and Pressey, A. (2013) 'Consumer information search and credence services: implications for service providers', *Journal of Services Marketing*, 27(1), pp. 49-58.
- Nguyen, N. and Leblanc, G. (2001) 'Corporate image and corporate reputation in customers' retention decisions in services', *Journal of Retailing and Consumer Services*, 8(4), pp. 227-236.
- Office for National Statistics (2013) *2011 Census analysis – Comparing rural and urban areas of England and Wales*. Available at: <http://www.ons.gov.uk> (Accessed: 1 July 2014).
- Ok, C., Back, K.J. and Shanklin, C.W. (2005) 'Modeling roles of service recovery strategy: A relationship-focused view', *Journal of Hospitality & Tourism Research*, 29(4), pp. 484-507.
- Oliver, R.L. and Swan, J.E. (1989) 'Consumer perceptions of interpersonal equity and satisfaction in transactions: A field survey approach', *Journal of Marketing*, 53(2), pp. 21-35.
- Ombudsman Services (2014) 'Consumer Action Monitor: Key findings and methodology'. Available at: <http://www.ombudsman-services.org> (Accessed: 4 September 2015).
- Oppenheim, A.N. (1992) *Questionnaire design, interviewing and attitude measurement*. London: Continuum.
- Orsingher, C., Valentini, S. and de Angelis, M. (2010) 'A meta-analysis of satisfaction with complaint handling in services', *Journal of the Academy of Marketing Science*, 38(2), pp. 169-186.
- Ostrom, A.L. and Iacobucci, D. (1995) 'Consumer trade-offs and the evaluation of services', *Journal of Marketing*, 59(1), pp. 17-28.

- Ostrom, A.L. and Iacobucci, D. (1998) 'The effect of guarantees on consumers' evaluation of services', *Journal of Services Marketing*, 12(5), pp. 362-378.
- Ostrom, A.L., Parasuraman, A., Bowen, D.E., Patricio, L. and Voss, C.A. (2015) 'Service research priorities in a rapidly changing context', *Journal of Service Research*, 18(2), pp. 127-159.
- Palmer, A., Beggs, R. and Keown-McMullan, C. (2000) 'Equity and repurchase intention following service failure', *Journal of Services Marketing*, 14(6), pp. 513-528.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985) 'A conceptual model of service quality and its implications for future research', *Journal of Marketing*, 49(4), pp. 41-50.
- Patterson, P.G., Cowley, E. and Prasongsukarn, K. (2006) 'Service failure recovery: the moderating impact of individual-level cultural value orientation of perceptions of justice', *International Journal of Research in Marketing*, 23(3), pp. 263-277.
- Perdue, B.C. and Summers, J.O. (1986) 'Checking the success of manipulations in marketing experiments', *Journal of Marketing Research*, 23(4), pp. 317-326.
- Peter, J.P. (1991) 'Reliability: A review of psychometric basics and recent marketing practices', *Journal of Marketing Research*, 16(1), pp. 6-17.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003) 'Common method biases in behavioral research: A critical review of the literature and recommended remedies', *Journal of Applied Psychology*, 88(5), pp. 879-903.
- Podsakoff, P.M., MacKenzie, S.B. and Podsakoff, N.P. (2012) 'Sources of method bias in social science research and recommendations on how to control it', *Annual Review of Psychology*, 65, pp. 539-569.
- Podsakoff, P.M. and Organ, D.W. (1986) 'Self-reports in organizational research: Problems and prospects', *Journal of Management*, 12(4), pp. 531-544.
- Porter, L.W., Steers, R.M., Mowday, R.T. and Boulian, P.V. (1974) 'Organisational commitment, job satisfaction, and turnover among psychiatric technicians', *Journal of Applied Psychology*, 59(5), pp. 603-609.
- Pritchard, M.P., Havitz, M.E. and Howard, D.R. (1999) 'Analyzing the commitment-loyalty link in service contexts', *Journal of the Academy of Marketing Science*, 27(3), pp. 333-348.
- Purohit, D. and Srivastava, J. (2001) 'Effect of manufacturer reputation, retailer reputation, and product warranty on consumer judgments of product quality: A cue diagnosticity framework', *Journal of Consumer Psychology*, 10(3), pp. 123-134.
- Rao, A.R., Qu, L. and Ruekert, R.W. (1999) 'Signaling unobservable product quality through a brand ally', *Journal of Marketing Research*, 36(2), pp. 258-268.
- Raynolds, N., Schegelmich, B. and Diamantopoulos, A. (1994) 'Pretesting in questionnaire design: The impact of respondent characteristics on error detection', *International Journal of Market Research*, 36(4), pp. 2-15.
- Reeder, G.D., Pryor, J.B., Wohl, M.J.A. and Griswell, M.L. (2005) 'On attributing negative motives to others who disagree with our opinions', *Personality and Social Psychology Bulletin*, 31(11), pp. 1498-1510.
- Reinartz, W., Haenlein, M. and Henseler, J. (2009) 'An empirical comparison of the efficacy of covariance-based and variance-based SEM', *International Journal of Marketing*, 26(4), pp. 332-344.
- Rempel, J.K., Holmes, J.G. and Zanna, M.P. (1985) 'Trust in close relationships', *Journal of Personality and Social Psychology*, 49(1), pp. 95-112.
- Ringle, C.M., Wende, S. and Becker, J.M. (2015) *SmartPLS 3*, SmartPLS, Hamburg. Available at: <http://smartpls.com> (Accessed: 4 February 2015)

- Ro, H. and Olson, E.D. (2014) 'The effects of social justice and stigma-consciousness on gay customers' service recovery evaluation', *Journal of Business Research*, 67(6), pp. 1162-1169.
- Roggeveen, A.L., Tsiros, M. and Grewal, D. (2012) 'Understanding the co-creation effect: when does collaborating with customers provide a lift to service recovery?', *Journal of the Academy of Marketing Science*, 40(6), pp. 770-790.
- Roschk, H. and Gelbrich, K. (2014) 'Identifying appropriate compensation types for service failures: A meta-analytic and experimental analysis', *Journal of Service Research*, 17(2), pp. 195-211.
- Roschk, H. and Kaiser, S. (2013) 'The nature of an apology: An experimental study on how to apologize after a service failure', *Marketing Letters*, 24(3), pp. 293-309.
- Rotte, K., Chandrashekar, M., Tax, S.S. and Grewal, R.D. (2006) 'Forgiven but not forgotten: Covert uncertainty in overt responses and the paradox of defection-despite-trust', *Journal of Consumer Psychology*, 16(3), pp. 283-294.
- Rotter, J.B. (1967) 'A new scale for the measurement of interpersonal trust', *Journal of Personality*, 35(4), pp. 651-665.
- Rotter, J.B. (1971) 'Generalized expectancies for interpersonal trust', *American Psychologist*, 26(5), pp. 443-452.
- Rotter, J.B. (1980) 'Interpersonal trust, trustworthiness and gullibility', *American Psychologist*, 35(1), pp. 1-7.
- Royal Mail (2014) *Special Delivery Guaranteed*. Available at: <http://www.royalmail.com/personal/uk-delivery/special-delivery> (Accessed: 31 May 2014)
- Rust, R.T., Zahorik, A.J. and Keiningham, T.L. (1997) 'Return on quality: Making service quality financially accountable', *Journal of Marketing*, 59(2), pp. 58-70.
- Sajtos, L., Brodie, R.J. and Whittome, J. (2010) 'Impact of service failure: The protective layer of customer relationships', *Journal of Service Research*, 13(2), pp. 216-229.
- Samu, S., Krishnan, H.S. and Smith, R.E. (1999) 'Using advertising alliances for new product introduction: Interactions between product complementarity and promotional strategies', *Journal of Marketing*, 63(1), pp. 57-74.
- San Martín, S. and Camarero, C. (2005) 'Consumer reactions to firm signals in asymmetric relationships', *Journal of Service Research*, 8(1), pp. 79-97.
- Sarel, D. and Marmorstein, H. (2001) 'Improving the effectiveness of banks' service guarantees: The role of implementation', *Journal of Financial Services Marketing*, 5(3), pp. 215-226.
- Sarstedt, M., Henseler, J. and Ringle, C.M. (2011) 'Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results', in Sarstedt, M., Schwaiger, M. and Taylor, C.R. (eds.) *Measurement and Research Methods in International Marketing*. (Advances in International Marketing, Volume 22). Emerald Group Publishing Limited, pp. 195-218.
- Saunders, M.N.K. and Thornhill, A. (2008) *Research Methods for Business Students*. 5<sup>th</sup> edn. Harlow: Pearson Education Limited.
- Schoefer, K. and Diamantopoulos, A. (2008) 'The role of emotions in translating perceptions of (in)justice into post complaint behavioural responses', *Journal of Service Research*, 11(1), pp. 91-103.
- Schoefer, K. and Ennew, C. (2005) 'The impact of perceived justice on consumers' emotional responses to service complaint experiences', *Journal of Services Marketing*, 19(5), pp. 261-270.
- Sekaran, U. and Bougie, R. (2003) *Research methods for business. A Skill Building Approach*. 4<sup>th</sup> edn. Chichester: John Wiley & Sons.

- Sekaran, U. and Bougie, R. (2013) *Research methods for business. A Skill Building Approach*. 6<sup>th</sup> edn. Chichester: John Wiley & Sons.
- Sekhon, H., Roy, S., Shergill, G. and Pritchard, A. (2013) 'Modelling trust in service relationships: a transnational perspective', *Journal of Services Marketing*, 27(1), pp. 76-86.
- Sengupta, A.S., Balaji, M.S. and Krishnan, B.C. (2015) 'How customers cope with service failure? A study of brand reputation and customer satisfaction', *Journal of Business Research*, 68(3), pp. 665-674.
- Shapiro, D.L., Buttner, E.H. and Barry, B. (1994) 'Explanations: What factors enhance their perceived adequacy?', *Organizational Behavior and Human Decision Processes*, 58(3), pp. 346-368.
- Sharma, S., Durand, R.M. and Gur-Arie, O. (1981) 'Identification and analysis of moderator variables', *Journal of Marketing Research*, 18(3), pp. 291-300.
- Sharma, N. and Patterson, P.G. (2000) 'Switching costs, alternative attractiveness and experience as moderators of relationship commitment in professional, consumer services', *International Journal of Service Industry Management*, 11(5), pp. 470-490.
- Shimp, T.A. and Bearden, W.O. (1982) 'Warranty and other extrinsic cue effects on consumers' risk perceptions', *Journal of Consumer Research*, 9(1), pp. 38-46.
- Singh, J. (1988) 'Consumer complaint intentions and behaviour: Definitional and Taxonomical issues', *Journal of Marketing*, 52(1), pp. 93-107.
- Singh, J. and Crisafulli, B. (2015) 'Managing online service recovery: Procedures, justice and customer satisfaction', *Journal of Service Theory and Practice* (forthcoming).
- Sirdeshmukh, D., Singh, J. and Sabol, B. (2002) 'Consumer trust, value, and loyalty in relational exchanges', *Journal of Marketing*, 66(1), pp. 15-37.
- Sivakumar, K., Li, M. and Dong, B. (2014) 'Service quality: The impact of frequency, timing, proximity, and sequence of failures and delights', *Journal of Marketing*, 78(1), pp. 41-58.
- Slovic, P. and Lichtenstein, S. (1971) 'Comparison of bayesian and regression approaches to the study of information processing in judgment', *Organizational Behavior and Human Performance*, 6(6), pp. 649-744.
- Smith, A.K., Bolton, R.N. (2002) 'The effect of customers' emotional responses to service failures on their recovery effort evaluations and satisfaction judgments', *Journal of the Academy of Marketing Science*, 30(1), pp. 5-23.
- Smith, A.K., Bolton, R.N. and Wagner, J. (1999) 'A model of customer satisfaction with service encounters involving failure and recovery', *Journal of Marketing Research*, 36(3), pp. 356-372.
- Soberman, D.A. (2003) 'Simultaneous signaling and screening with warranties', *Journal of Marketing Research*, 40(2), pp. 176-192.
- Sparks, B.A. and McColl-Kennedy, J.R. (2001) 'Justice strategy options for increased customer satisfaction in a services recovery setting', *Journal of Business Research*, 54(3), pp. 209-218.
- Spence, A.M. (1973) 'Job market signaling', *The Quarterly Journal of Economics*, 87(3), pp. 355-374.
- Spence, A.M. (1974) *Market signaling: Informational transfer in hiring and related screening processes*. Cambridge, Massachusetts: Harvard University Press.
- Spence, A.M. (2002) 'Signaling in retrospect and the informational structure of markets', *American Economic Review*, 92(3), pp. 434-459.
- Srivastava, J. and Mitra, A. (1998) 'Warranty as a signal of quality: The moderating effect of consumer knowledge on quality evaluations', *Marketing Letters*, 9(4), pp. 327-336.

- Stiglitz, J.E. (2000) 'The contributions of the economics of information to twentieth century economics', *Quarterly Journal of Economics*, 115(4), pp. 1441-1478.
- Stone, M. (1974) 'Cross-validatory choice and assessment of statistical predictions', *Journal of the Royal Statistical Society*, 36(2), pp. 111-147.
- Streukens, S., Wetzels, M., Daryanto, A. and de Ruyter, K. (2010) 'Analyzing factorial data using PLS: Application in an online complaining context', in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (eds.) *Handbook of Partial Least Squares: Concepts, methods and applications*. Heidelberg: Springer-Verlag, pp. 567-588.
- Strizhakova, Y., Tsarenko, Y. and Ruth, J.A. (2012) 'I'm mad and I can't get that service failure off my mind': Coping and rumination as mediators of anger effects on consumer intentions', *Journal of Service Research*, 15(4), pp. 414-429.
- Swanson, S.R. and Kelley, S.W. (2001) 'Service recovery attributions and word-of-mouth intentions', *European Journal of Marketing*, 35(1/2), pp. 194-211.
- Tax, S.S. and Brown, S.W. (1998) 'Recovering and learning from service failure', *Sloan Management Review*, 40(1), pp. 75-88.
- Tax, S.S., Brown, S.W. and Chandrashekar, M. (1998) 'Customer evaluations of service complaint experiences: implications for relationship marketing', *Journal of Marketing*, 62(2), pp. 60-76.
- Tenenhaus, M., Vinzi, V.E., Chatelin, Y.M. and Lauro, C. (2005) 'PLS path modeling', *Computational Statistics & Data Analysis*, 48(1), pp. 159-205.
- Thibaut, J. and Walker, L. (1975) *Procedural justice: A psychological analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Thibaut, J. and Walker, L. (1978) 'A theory of procedure', *California Law Review*, 66(3), pp. 541-566.
- Tsarenko, Y. and Strizhakova, Y. (2013) 'Coping with service failures: The role of emotional intelligence, self-efficacy and intention to complain', *European Journal of Marketing*, 47(1/2), pp. 71-92.
- Tsarenko, Y. and Tojib, D.R. (2012) 'A transactional model of forgiveness in the service failure context: a customer-driven approach', *Journal of Services Marketing*, 25(5), pp. 381-392.
- Tull, D.S. and Hawkins, D.I. (1976) *Marketing Research. Meaning, Measurement and Method*. New York: Collier Macmillan Publishers.
- Tyler, T.R. (1989) 'The psychology of procedural justice: A test of group value model', *Journal of Personality and Social Psychology*, 57(5), pp. 830-838.
- van den Bos, K. (2001) 'Fairness heuristic theory: Assessing the information to which people are reacting has a pivotal role in understanding organizational justice', in Gilliland, S., Steiner, D. and Skarlicki, D. (eds.) *Theoretical and cultural perspectives on organizational justice*. Greenwich, Connecticut: Information Age Publishing Inc., pp. 63-84.
- van der Heijden, G.A.H., Schepers, J.J.L., Nijssen, E.J. and Ordanini, A. (2013) 'Don't just fix it, make it better! Using frontline service employees to improve recovery performance', *Journal of the Academy of Marketing Science*, 41(5), pp. 515-530.
- Van Vaerenberg, Y., De Keyser, A. and Larivière, B. (2014) 'Customer intentions to invoke service guarantees. Do excellence in service recovery, type of guarantee and cultural orientation matter?', *Managing Service Quality*, 24(1), pp. 45-62.
- Van Vaerenberg, Y., Larivière, B. and Vermeir, I. (2012) 'The impact of process recovery communication on customer satisfaction, repurchase intentions, and word-of-mouth intentions', *Journal of Service Research*, 15(3), pp. 262-279.



- Van Vaerenberg, Y., Orsingher, C., Vermeir, I. and Larivière, B. (2014) 'A meta-analysis of relationships linking service failure attributions to customer outcomes', *Journal of Service Research*, 17(4), pp. 381-398.
- Vázquez-Casielles, R., Álvarez, L.S. and Martín, A.M.D. (2010) 'Perceived justice of service recovery strategies: Impact on customer satisfaction and quality relationship', *Psychology & Marketing*, 27(5), pp. 487-509.
- Vázquez-Casielles, R., Blanco, M.F., Contri, G.B. and Saura, I.G. (2009) 'Cognitive and Affective Causes of Consumer Dissatisfaction with the Hospitality Encounter', *Journal of Hospitality Marketing and Management*, 18(7), pp. 653-675.
- Virgin (2014) *Why Virgin Holidays*. Available at: [http://www.virginholidays.co.uk/who-are-we#worry\\_free](http://www.virginholidays.co.uk/who-are-we#worry_free) (Accessed: 31 May 2014)
- Voorhees, C.M., Brady, M.K. and Horowitz, D.M. (2006) 'A voice from the silent masses: An exploratory and comparative analysis of noncomplainers', *Journal of the Academy of Marketing Science*, 34(4), pp. 514-527.
- Walker, R.H. and Johnson, L.W. (2009) 'Signaling intrinsic service quality and value via accreditation and certification', *Managing Service Quality*, 19(1), pp. 85-105.
- Walsh, G. and Beatty, S.E. (2007) 'Customer-based corporate reputation of a service firm: scale development and validation', *Journal of the Academy of Marketing Science*, 35(1), pp. 127-143.
- Walsh, G., Mitchell, V.W., Jackson, P.R. and Beatty, S.E. (2009) 'Examining the antecedents and consequences of corporate reputation: A customer perspective', *British Journal of Management*, 20(2), pp. 187-203.
- Wang, S., Beatty, S.E. and Foxx, W. (2004) 'Signaling the trustworthiness of small online retailers', *Journal of Interactive Marketing*, 18(1), pp. 53-69.
- Wang, X., Chow, W.C., Yang, Z. and Lai, J.Y.M. (2014) 'Market signals: web site investment and physical store existence', *Asia Pacific Journal of Marketing and Logistics*, 26(1), pp. 94-113.
- Weiner, B. (1986), *An Attributional Theory of Motivation and Emotion*, New York: Springer-Verlag.
- Weiner, B. (2000) 'Attributional thoughts about consumer behavior', *Journal of Consumer Research*, 27(3), pp. 382-387.
- Wilson, B. (2010) 'Using PLS to investigate interaction effects between higher order branding constructs', in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (eds.) *Handbook of Partial Least Squares*. Berlin: Springer-Verlag, pp. 621-654.
- Wirtz, J., Chew, P. and Lovelock, C. (2012) *Essentials of Services Marketing*. 2<sup>nd</sup> edn. Singapore: Pearson.
- Wirtz, J. and Kum, D. (2001) 'Designing service guarantees - is full satisfaction the best you can guarantee?', *Journal of Services Marketing*, 15(4), pp. 282-299.
- Wirtz, J. and Kum, D. (2004) 'Consumer cheating on service guarantees', *Journal of the Academy of Marketing Science*, 32(2), pp. 159-175.
- Wirtz, J., Kum, D. and Lee, K.S. (2000) 'Should a firm with a reputation for outstanding service quality offer a service guarantee?', *Journal of Services Marketing*, 14(6), pp. 502-512.
- Wirtz, J. and Mattila, A.S. (2004) 'Consumer responses to compensation, speed of recovery and apology after a service failure', *International Journal of Service Industry Management*, 15(2), pp. 150-166.
- Wirtz, J. and McColl-Kennedy, J.R. (2010) 'Opportunistic customer claiming during service recovery', *Journal of the Academy of Marketing Science*, 38(5), pp. 654-675.
- Worsfold, K., Worsfold, J. and Bradley, G. (2007) 'Interactive effects of proactive and reactive service recovery strategies: The case of rapport and compensation', *Journal of Applied Social Psychology*, 37(11), pp. 2496-2517.

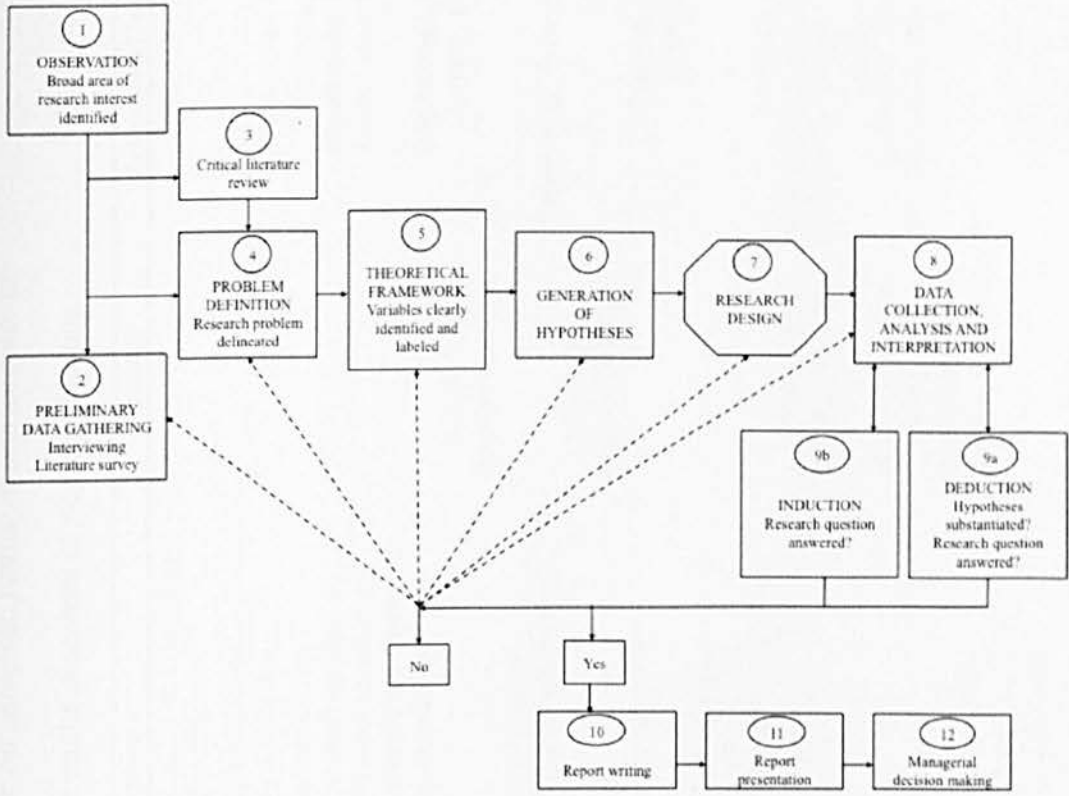
- Wu, C.H.J., Liao, H.C., Hung, K.P. and Ho, Y.H. (2012) 'Service guarantees in the hotel industry: their effects on consumer risk and service quality perceptions', *International Journal of Hospitality Management*, 31(3), pp. 757-763.
- Yougov-Cambridge (2013) 'Public trust in banking'. Available at: [http://cdn.yougov.com/cumulus\\_uploads/document/vlf7gpof19/Public\\_Trust\\_in\\_Banking\\_Final.pdf](http://cdn.yougov.com/cumulus_uploads/document/vlf7gpof19/Public_Trust_in_Banking_Final.pdf) (Accessed: 7 October 2015).
- Zajonc, R.B. and Markus, H. (1982) 'Affective and cognitive factors in preferences', *Journal of Consumer Research*, 9(2), pp. 123-131.
- Zayer, L.T. Otnes, C.C. and Fischer, E.M. (2015) 'The nature and implications of consumers' experiential framings of failure in high-risk service contexts', *Journal of Service Research*, 18(3), pp. 303-317.
- Zeelenberg, M. and Pieters, R. (2004) 'Beyond valence in customer dissatisfaction: A review and new findings on behavioral responses to regret and disappointment in failed services', *Journal of Business Research*, 57(4), pp. 445-455.
- Zeithaml, V.A. (1981) 'How consumer evaluation processes differ between goods and services', in Donnelly, H.H. and George, W.R. (eds.) *Marketing of Services*. Chicago, IL: American Marketing Association, pp. 186-190.
- Zhu, M., Billeter, D.M. and Inman, J.J. (2012) 'The double-edged sword of signaling effectiveness: When salient cues curb postpurchase consumption', *Journal of Marketing Research*, 49(1), pp. 26-38.
- Zhu, Z., Nakata, C., Sivakumar, K. and Grewal, D. (2013) 'Fix it or leave it? Customer recovery from self-service technology failures', *Journal of Retailing*, 89(1), pp. 15-29.

**LIST OF APPENDICES**

- APPENDIX A:** The research process
- APPENDIX B:** Literature on perceived justice in service recovery
- APPENDIX C:** Literature on signaling in marketing research
- APPENDIX D:** Sample of existing service guarantee policies
- APPENDIX E:** Questionnaire
- APPENDIX F:** List of the questionnaire items
- APPENDIX G:** Socio-demographic characteristics of UK population
- APPENDIX H:** Outputs from pilot study
- APPENDIX I:** Outputs from main study
- APPENDIX L:** Approaches to testing moderation in PLS-SEM

APPENDIX A: The research process

Figure A1.2: The Research Process Framework



Source: Sekaran, U. and Bougie, R. (2013) *Research methods for business. A Skill Building Approach*. 6<sup>th</sup> edn. Chichester: John Wiley & Sons, p. 49.

**APPENDIX B: Literature on perceived justice in service recovery**

**Table B1.3: Research on the outcomes of perceived justice**

<b>Author(s)</b>	<b>Justice</b>	<b>Attitudes</b>	<b>Emotions</b>	<b>Behavioural Intentions</b>
Tax <i>et al.</i> (1998)	3	Recovery Satisfaction, Trust, Commitment		
Smith <i>et al.</i> (1999)	3	Overall satisfaction		
McCollough <i>et al.</i> (2000)	2	Recovery satisfaction		
Hui and Au (2001)	2	Recovery satisfaction		Repatronage, WOM
Sparks & McColl-Kennedy (2001)	3	Recovery satisfaction		Repatronage
Maxham & Netemeyer (2002)	3	Recovery and Overall satisfaction		Repatronage, WOM
Maxham & Netemeyer (2003)	3	Recovery and Overall satisfaction		Repatronage, WOM
Mattila & Patterson (2004)	2	Recovery and Overall satisfaction		
Wirtz & Mattila (2004)	3	Recovery satisfaction		Repatronage, WOM
Chebat & Slusarczyk (2005)	3		Positive and Negative emotions	Loyalty, Exit
Mattila & Cranage (2005)	4	Recovery satisfaction		
Homburg & Furst (2005)	3	Recovery and Overall satisfaction		Repatronage, Behavioural loyalty
Schoefer & Ennew (2005)	3		Positive and Negative emotions	
Voorhees & Brady (2005)	3	Recovery satisfaction		Complaining
Mattila (2006)	2			Tipping
Patterson <i>et al.</i> (2006)	3	Recovery satisfaction		
Karande <i>et al.</i> (2007)	1	Overall satisfaction		
Liao (2007)	4	Overall justice, Recovery satisfaction		Repatronage
DeWitt <i>et al.</i> (2008)	3	Trust	Positive and Negative emotions	WOM, willingness to pay premium prices, Repatronage, Actual repeat purchase
Gregoire & Fisher (2008)	3		Perceived betrayal	Retaliation, Reparation
Schoefer & Diamantopoulos (2008)	3		Positive and Negative emotions	NWOM, Repatronage, Third-party action
del Rio-Lanza <i>et al.</i> (2009)	3	Recovery satisfaction	Negative emotions	
Kim <i>et al.</i> (2009)	3	Recovery satisfaction, Trust		Repatronage, WOM
Wirtz & McColl-Kennedy (2010)	3	Recovery satisfaction		Opportunistic claiming
McColl-Kennedy <i>et al.</i> (2011)	3		Anger	NWOM, Boycotting
Aggarwal & Larrick (2012)	2	Brand evaluation		Repatronage
Ro & Olson (2014)	3			

## APPENDIX C: Literature on signaling in marketing research

Table B2.1 Existing classifications of marketing signals

Author(s)	Classifications	Examples
Kirmani & Rao (2000); San Martin & Camarero (2005)	Default-contingent	<ul style="list-style-type: none"> <li>• warranty</li> <li>• guarantee</li> <li>• low price</li> </ul>
Kirmani & Rao (2000), San Martin & Camarero (2005)	Default-independent	<ul style="list-style-type: none"> <li>• advertising costs</li> <li>• reputation</li> <li>• branding</li> <li>• low introductory prices</li> <li>• allowances</li> <li>• investment in assets</li> </ul>
Dutta <i>et al.</i> (2007); Chen <i>et al.</i> (2009)	Informative function	<ul style="list-style-type: none"> <li>• low-price guarantee</li> </ul>
Dutta <i>et al.</i> (2007); Chen <i>et al.</i> (2009)	Protective function	<ul style="list-style-type: none"> <li>• service guarantee</li> </ul>
Chatterjee <i>et al.</i> (2005)	Promotion function	<ul style="list-style-type: none"> <li>• certifications</li> </ul>
Chatterjee <i>et al.</i> (2005)	Prevention function	<ul style="list-style-type: none"> <li>• warranty</li> </ul>
Bhattacharya (1980) Rao <i>et al.</i> (1999)	Dissipative	<ul style="list-style-type: none"> <li>• branding</li> <li>• reputation,</li> <li>• certifications</li> </ul>
Bhattacharya (1980) Rao <i>et al.</i> (1999)	Non-dissipative	<ul style="list-style-type: none"> <li>• warranties</li> </ul>
Ho <i>et al.</i> (2011)	Non-obligatory	<ul style="list-style-type: none"> <li>• always low price strategy</li> </ul>
Ho <i>et al.</i> (2011)	Obligatory	<ul style="list-style-type: none"> <li>• low price guarantee</li> </ul>

**Table B2.4** Summary of research examining multiple signals

<b>Study</b>	<b>Context(s)</b>	<b>Signals</b>
Srivastava & Mitra (1998)	P	Product warranty, reputation
Purohit & Srivastava (2001)	P	Manufacturer reputation, retailer reputation, product warranty
Wang <i>et al.</i> (2004)	S	Seals of approval, return policy, awards from neutral sources, security disclosures, and privacy disclosures
Chatterjee <i>et al.</i> (2005)	S	Certifications, warranty
San Martin & Camarero (2005)	S	Reputation, national or international chain, advertising, warranty, open servicing, ambience, courtesy car
Basuroy <i>et al.</i> (2006)	P	Movie sequels, advertising expenditures, third-party information sources
Dean & Lang (2008)	P	Third-party evaluation of a brand, WOM, brand popularity
Bonifield <i>et al.</i> (2010)	S	Return policy leniency, retailer quality
Fang <i>et al.</i> (2013)	P	Warranty, brand alliance

Note: P=Product; S=Service

**APPENDIX D: Sample of existing service guarantee policies**

<b>Company</b>	<b>Sector</b>	<b>Guarantee</b>	<b>Payout</b>	<b>Invocation process</b>
Atlantic	Energy	<i>Customer Service Guarantee</i> We won't change our principle of providing excellent customer service, built upon the areas you want us to focus on: (1) all you back when you say we will, (2) never transfer you more than once when you call us, unless you agree, (3) give you the opportunity to speak to a manager if you ask, (4) offer to find you ways to save money, (5) offer support with your bills.	<ul style="list-style-type: none"> <li>• put the matter right</li> <li>• take £20 off your next bill</li> </ul>	<ul style="list-style-type: none"> <li>• consider claims made within 10 working days of the alleged failure</li> <li>• determine claim validity</li> </ul>
The Co-operative Bank	Banking	<i>Customer Service Guarantee</i> Our promise is to begin processing your application for a current account within 48 hours and if successful, open it without error.	<ul style="list-style-type: none"> <li>• claim for £25 for any breach of the guarantee</li> </ul>	<ul style="list-style-type: none"> <li>• call Customer Services on 08457 213 213</li> <li>• specify the Customer Service Guarantee we have broken</li> </ul>
Lenwell Property Services	Property	<i>Customer Service Guarantee</i> Our guarantee includes: (1) responding to your queries and complaints, (2) paying rents received to landlords, (3) inspecting your property, (4) advertising, (5) refund deposits.	<ul style="list-style-type: none"> <li>• put the problem right,</li> <li>• apologise and</li> <li>• offer £15</li> </ul>	<ul style="list-style-type: none"> <li>• Write to Customer Services</li> </ul>
MHS Homes	Property	<i>Customer Service Guarantee</i> MHS homes is determined to provide you with the highest standards of customer service.	<ul style="list-style-type: none"> <li>• resolve customer complaints fairly, consistently and promptly</li> </ul>	<ul style="list-style-type: none"> <li>• complete a Compliments, Comments and Complaints form in our 'Your Views' leaflet</li> </ul>
Vision Express	Retail	<i>Total Customer Satisfaction Guarantee</i> As part of our commitment to exceptional customer service we guarantee total satisfaction in every store.	<ul style="list-style-type: none"> <li>• Consultation with the optometrist at no charge</li> </ul>	<ul style="list-style-type: none"> <li>• Come back and see your optometrist again at any time.</li> </ul>
Virgin Media	Telecoms	<i>14 day Customer Satisfaction Guarantee</i> Warranty applies if your new phone or new mobile broadband device ceases to function correctly due to defective materials or workmanship within 24 months from purchase.	<ul style="list-style-type: none"> <li>• exchange your joining pack for a different one of the same value or</li> <li>• full refund</li> </ul>	<ul style="list-style-type: none"> <li>• Call on 0845 6000 789.</li> </ul>



## Appendices

Company	Sector	Guarantee	Payout	Invocation process
Virgin Holidays	Tourism	<i>Worry free guarantee</i> Our packages are ATOL protected. That means you're fully protected from losing your money, should your flight out be cancelled and you can't reach your destination within a reasonable amount of time.	<ul style="list-style-type: none"> <li>• change to another holiday, or</li> <li>• if the holiday cannot be changed, you get a full refund</li> </ul>	
The White Swan Inn	Hospitality	<i>Money back guarantee</i>	<ul style="list-style-type: none"> <li>• a no quibble, no catches full refund</li> </ul>	<ul style="list-style-type: none"> <li>• Let us know immediately</li> </ul>
The Ringley Group	Legal	<i>Money back guarantee</i> We guarantee to treat you with respect, provide advice that builds trust and not to give you the need to question our integrity.	<ul style="list-style-type: none"> <li>• refund you the proportion of the relevant fees, or</li> <li>• we will help you move to a new agent and give you £500 for any inconvenience.</li> </ul>	<ul style="list-style-type: none"> <li>• Report this to us in writing within 14 days of a service failing</li> </ul>
Online Legal	Legal	<i>Money back guarantee</i> We do not guarantee refund of: 1) money charged by third parties, 2) any money because service is slow due to delays that are beyond our control.	<ul style="list-style-type: none"> <li>• full refund of our fees or</li> <li>• at your discretion for us to remedy the problem free of charge.</li> </ul>	
Robinson College	Education	<i>Service Guarantee</i> We guarantee to respond to your enquiry within two working days. Your enquiry and the arrangements for your event will be looked after by a professional Event Manager, a detailed quotation will accompany your contract.	<ul style="list-style-type: none"> <li>• we put the matter right</li> </ul>	<ul style="list-style-type: none"> <li>• Make your claims through our Customer Services within 14 days of purchase</li> </ul>
ChipsAway	Car Repair	<i>Repairs guarantee</i> If, for any reason, including but not limited to inclement weather, ChipsAway is unable to carry out the repair at the time or location indicated on the Estimate, ChipsAway will make an offer to conduct the repair at an alternative time or location convenient to both parties.	<ul style="list-style-type: none"> <li>• free rectification, or</li> <li>• a refund equal to the portion of the invoice price representing the unsatisfactory repair (at our discretion)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide a proof of the work carried out, or</li> <li>• claims made without a receipt shall be at ChipsAways discretion.</li> </ul>
AutoRestore	Car Repair	<i>Repairs guarantee</i> We guarantee the standards of our workmanship for as long as you own the Vehicle. This means that we will repair, free of charge to you, any defect caused by any failings in our workmanship.	<ul style="list-style-type: none"> <li>• repair at no cost to you - we reserve the right to assess the reasonableness of costs</li> </ul>	<ul style="list-style-type: none"> <li>• contact our staff who will be happy to take care of you</li> </ul>

## APPENDIX E: Questionnaire (Banking and Car Repair)

### INFORMED CONSENT FORM

#### General information

This survey is part of academic research conducted at Kingston Business School, Kingston University London (UK). The research aims to understand unsatisfactory customer experiences with banking/car repair services. The survey contains a hypothetical situation describing a customer experience of *[Banking]* opening a new bank account, followed by related questions / *[Car repair]* getting a car's air conditioning system repaired, followed by related questions.

#### Participation

Your participation in the survey is voluntary and you can withdraw at any time.

#### Confidentiality

Your answers will be kept anonymous and strictly confidential. All answers will be aggregated for analysis and used for research purpose only.

#### Survey

This survey will take approximately 10 minutes to complete. Please try to answer the questions as honestly as possible.

Thank you for your time and help.

- I confirm that I have read and understood the above informed consent form and I agree to take part in the survey.

### SECTION 1: ABOUT YOURSELF

Below are some general questions about yourself and your experience using a bank/car repair services.

#### For how long have you been living in the United Kingdom?

- Less than 1 year
- 1 - 5 years
- 6 years or longer

#### For how long have you been using your bank in the United Kingdom? *[Banking only]*

- Less than 1 year
- 1 - 5 years
- 6 years or longer

#### Have you ever owned a car? *[Car Repair only]*

- Yes
- No

**Has your car ever needed repairs? [Car Repair only]**

- Yes
- No

**How often do you typically use car repair services? [Car Repair only]**

- Once a year
- 2 - 3 times a year
- 4 - 5 times a year
- 6 times a year or more

**Have you ever had any unsatisfactory experience with a bank/car repair workshop or garage?**

- Yes
- No

**Rate how unsatisfactory was your experience on a scale 0 to 10 (0 = slightly unsatisfactory; 10 = highly unsatisfactory)**

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

## **SECTION 2: CUSTOMER EXPERIENCE OF USING A BANK/CAR REPAIR WORKSHOP**

Soon you will be shown **THREE PARTS** of a hypothetical situation describing a customer experience of *[Banking]* opening a new bank account with **Beta Bank** / *[Car Repair]* getting the car's air conditioning system repaired at **Beta Car Repairs** (a fictitious company name is used for anonymity reasons). Please read each part and imagine yourself in the role of the customer. Then, please answer the questions that follow.

### **PART 1**

#### *[Banking]*

Imagine that you decide to open a new bank account with Beta Bank. In order to do this, you visit your local branch. After going through some paperwork, you are told by the employee at Beta Bank that within the next two days you will receive an email confirming that the account has been opened. Only then, you can be confident that your account as well as your direct debits and standing orders are active. After three days, you still have not received any email confirmation from Beta Bank about the opening of your bank account. Since you set up a few payments including your house rent and utility bills, you now want to resolve the problem with your account opening.

#### *[Car Repair]*

Imagine that you have recently been experiencing intermittent problems with the air conditioning in your car. You decide to bring your car to Beta Car Repairs workshop to resolve the problem. At the workshop, the engineer inspects your car and recommends repairs, which will cost £200, including the cost of a new condenser and labour costs. You are also told that your car will be ready to collect two days later. Two days later, you go to Beta Car Repairs to collect your car. Here, you collect your car and pay the agreed price for the repair. A week later, you experience problems with your car's air conditioning again. You therefore bring your car back to Beta Car Repairs and ask the engineer to look into the problem. Since you made plans to drive to the countryside over the weekend and the weather is hot these days, you now want to resolve the problem with your car.

Imagining yourself as the customer in the situation above, you feel the delay in opening the new bank account [*Banking*] / the failed car repair [*Car Repair*] caused you

	1	2	3	4	5	6	7	
Minor inconvenience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Major inconvenience
Minor annoyance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Major annoyance

The hypothetical situation you have just read made reference to [*Trap question*]

- Closure of an existing bank account [*Banking*] / Purchasing a car [*Car Repair*]
- Opening of a new bank account [*Banking*] / Repairing a car [*Car Repair*]
- Overseas money transfer [*Banking*] / Selling a car [*Car Repair*]

## PART 2

### *[Banking]*

After three days, you decide to call Customer Services at Beta Bank to complain about the issue with the opening of your new bank account. You visit Beta Bank's website to search for the Customer Services telephone number. On the website you notice that the bank advertises a guarantee on account opening services. The service guarantee reads as follows:

**HIGH GUARANTEE:** *Our promise is to process your application for a current account within 2 days. We also promise to set up and pay and/or cancel your standing orders and direct debits as instructed. If you have a claim under our guarantee, please let us know. We will compensate and you may claim £35 for the breach of our guarantee.*

**LOW GUARANTEE:** *Our promise is to process your application for a current account within 2 days. We also promise to set up and pay and/or cancel your standing orders and direct debits as instructed. If you have a claim under our guarantee, please report it to our Customer Service Team. You may claim £10 for the breach of our guarantee.*

Since you have not received any email confirmation within the last three days, you have established that your new bank account has not been opened yet. You therefore believe that you have a claim under the service guarantee. You then call Customer Services and claim the guarantee.

### *[Car Repair]*

During your second visit to the workshop, you notice that Beta Car Repairs are advertising a guarantee on repair services. The repairs guarantee reads as follows:

**HIGH GUARANTEE:** *At Beta Car Repairs, repairs are our speciality. We guarantee the standards of our workmanship. This means that for any failings in our workmanship, the repair will be free of charge to you and you may claim a discount on your next repair visit. If you believe you have a claim under our guarantee, please tell our staff who will take care of you.*

**LOW GUARANTEE:** *At Beta Car Repairs, repairs are our speciality. We guarantee the standards of our workmanship. This means that for any failings in our workmanship, you may claim £10 off your next repair visit. If you believe you have a claim under our guarantee, please report it to our Customer Services Team who will take care of you.*

You have established that Beta Car Repairs have failed to fully repair your car and you believe you have a claim under their guarantee. Therefore, you speak to the workshop manager about the guarantee.

[Banking]

**HIGH COMMUNICATION:** *On the phone, the customer service employee carefully listens to your problem and then expertly says: "The delay in opening your bank account is due to identity and fraud checks taking longer than expected. Unfortunately, we are required by law to carry out these checks. We have also experienced delays managing our backlog of account opening applications, due to a technical issue with our internal IT systems."*

**LOW COMMUNICATION:** *On the phone, the customer service employee appears disinterested about your problem and struggles to clarify the reason for the delay: "We frequently experience delays in opening new bank accounts. There is nothing that we can do about it."*

[Car Repair]

**HIGH COMMUNICATION:** *The workshop manager carefully listens to you and then expertly says: "The two main causes of malfunctioning of air conditioning systems are lack of gas and component breakdown. Our engineer found that the condenser in your car was leaking, hence we replaced the condenser and re-gassed the system. However, if you are experiencing the problem again, it may well be that the system needs recharging with some lubricant. To do this, we will need to check your air-conditioning system again."*

**LOW COMMUNICATION:** *The workshop manager appears disinterested about your problem and struggles to clarify the reason for the recurring problem with your car's air conditioning: "Situations like yours can happen when repairing cars. There is nothing that our engineers can do about it."*

**Based on the situation above, you think that the customer service employee at Beta Bank / the workshop manager at Beta Car Repair**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
spontaneously informed you about the reason for the delay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gave you a reasonable explanation for the delay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
seemed to tailor communication to your needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was open in his/her communication with you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Banking]

**HIGH CONCERN:** At this point, the customer service employee sincerely apologizes for the inconvenience caused and politely says: "I can ensure you that I will do my best to resolve the problem. While we are on the phone, I am chasing our account opening team asking them to speed up the process of opening your account. I am also reporting the problem to the branch manager who looks after your application. So your account will be opened very soon."

**LOW CONCERN:** The customer service employee sounds annoyed by your complaint and says: "Your account will be opened very soon. However, we cannot speed up the process as other customers have been waiting and their queries now have priority."

[Car Repair]

**HIGH CONCERN:** At this point, the workshop manager sincerely apologizes for the inconvenience caused to you and politely says: "I understand that you need your car at the earliest and I can ensure you that I will do my best to resolve your problem. In fact, I will ask the engineer who previously worked on your car repair to look into the problem now. It should take a couple of hours to resolve the issue."

**LOW CONCERN:** The workshop manager looks annoyed by your complaint and then says: "I will ask one of our engineers to look into the problem on your car. However, this cannot be done before tomorrow or the day after as our engineers are working on repairs for other customers who now have priority."

**Based on the situation above, you think that the customer service employee at Beta Bank / the workshop manager at Beta Car Repairs**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
treated you in a polite manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
treated you with dignity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
treated you with respect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



[Banking]

**HIGH PAYOUT:** You are also told that based on Beta Bank's service guarantee policy, you can receive a credit of £35 on your new account (higher than the industry standards).

**LOW PAYOUT:** You are also told that based on Beta Bank's service guarantee policy, you can receive a credit of £10 on your new bank account (lower than the industry standards).

[Car Repair]

**HIGH PAYOUT:** You are also told that based on Beta Car Repairs' guarantee policy, you will not be charged for this repair, plus you will be given £20 off your next repair visit (higher than the industry standards).

**LOW PAYOUT:** You are also told that based on Beta Car Repairs' guarantee policy, you can receive £10 off your next repair visit (lower than the industry standards).

**Based on the situation above, you think that**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
although the delay in opening the bank account caused you problems, claiming the service guarantee resulted in a positive outcome for you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
given the resources invested in opening the bank account, the guarantee compensation was justified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
given the effort you spent, the compensation received as part of Beta Bank's service guarantee policy was appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
in claiming the service guarantee, you received what you needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
overall, Beta Bank's response to the delay was more than fair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Banking]

**HIGH EoI:** The customer service employee confirms that your call to Customer Services is all you need to do in order to claim the guarantee. No further questions will be asked. At the end of the conversation, the customer service employee wishes you a good day and hangs up the phone.

**LOW EoI:** The customer service employee confirms that to claim the credit, you will have to complete the bank's Compliments, Comments and Complaints form detailing what went wrong and mail it to Beta Bank Customer Services Team at the address shown on the bank's website. Once Customer Services receives your documentation, they will assess the validity of your claim and credit the amount at their own discretion. At the end of the conversation, the customer service employee wishes you a good day and hangs up the phone.

[Car Repair]

**HIGH EoI:** The workshop manager confirms that your conversation is all you need to do in order to claim the repairs guarantee. No further questions will be asked. Next, the workshop manager ends the conversation by wishing you a good day.

**LOW EoI:** The workshop manager confirms that to claim this amount, you will have to complete a Compliments, Comments and Complaints form detailing what went wrong and mail it to Customer Services along with a proof of your payment. Once Customer Services receives this documentation, they will assess the validity of your claim and credit the amount at their own discretion. Next, the workshop manager ends the conversation by wishing you a good day.

**Based on the situation above, you think that**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
the process of claiming Beta Bank's service guarantee resulted in a quick response to the delay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beta Bank responded in a prompt manner to the delay in opening your bank account	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
with respect to its service guarantee, Beta Bank handled your delay in a fair manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
overall, Beta Bank has a fair service guarantee policy to handle delays with account openings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**PART 3**

Now imagine that following your experience with Beta Bank / Beta Car Repairs, you are interested in knowing more about this bank / car repair workshop. You search on the Internet and find that...

*[Banking]*

**HIGH REPUTATION:** ...Beta Bank is a well-established bank, having operations worldwide. In 2014 YouGov consumer reports, Beta Bank has been rated well above industry average for its fair and transparent practices in dealing with customers, amongst 16 banking institutions. In addition, in the past few years, Beta Bank has received AAA ratings (the highest rating) on its ability to meet financial commitments from three UK ratings agencies. You have also heard positive comments about Beta Bank from your friends and colleagues.

**LOW REPUTATION:** ...Beta Bank is a recently established banking institution, having operations in the UK only. In 2014 YouGov consumer reports, Beta Bank has been rated below industry average for its fair and transparent practices in dealing with customers, amongst 16 banking institutions. In addition, in the past few years, Beta Bank has received BBB ratings (low ratings) on its ability to meet financial commitments from three UK ratings agencies. You have also heard negative comments about Beta Bank from your friends and colleagues.

*[Car Repair]*

**HIGH REPUTATION:** ...Beta Car Repairs is a well-established auto repair workshop, with over 25 years of experience repairing cars. In 2014 Good Garage Scheme Reports, Beta Car Repairs have been rated well above industry average on their fair and transparent practices in dealing with customers. In addition, in the past few years, Beta Car Repairs have been identified as one of the providers of car servicing and repairs with the highest standards of customer care by the UK Department of Trade and Industry. You have also heard positive comments about Beta Car Repairs from your friends and colleagues.

**LOW REPUTATION:** ...Beta Car Repairs are a recently established auto repair workshop, with just over 5 years of experience repairing cars. In 2014 Good Garage Scheme Reports, Beta Car Repairs have been rated below industry average for their fair and transparent practices in dealing with customers. In addition, in the past few years, Beta Car Repairs have been identified as one of the providers of car servicing and repairs with low standards of customer care by the UK Department of Trade and Industry. You have also heard negative comments about Beta Car Repairs from your friends and colleagues.

**Based on the description above, it seems that Beta Bank / Beta Car Repairs**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
has a reputation for being transparent with customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
has a reputation for taking customer rights seriously	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
has a reputation for treating customers fairly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cares about all of its customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## REMINDER

### *[Banking]*

You found that Beta Bank advertises the following guarantee policy on account opening services:

**HIGH GUARANTEE:** *Our promise is to process your application for a current account within 2 days. We also promise to set up and pay and/or cancel your standing orders and direct debits as instructed. If you have a claim under our guarantee, please let us know. We will compensate and you may claim £35 for the breach of our guarantee.*

**LOW GUARANTEE:** *Our promise is to process your application for a current account within 2 days. We also promise to set up and pay and/or cancel your standing orders and direct debits as instructed. If you have a claim under our guarantee, please report it to our Customer Service Team. You may claim £10 for the breach of our guarantee.*

You established that Beta Bank breached the guarantee in the process of opening your bank account, hence you called Customer Services to claim the guarantee.

### *[Car Repair]*

You found that Beta Car Repairs advertise the following guarantee policy on repair services:

**HIGH GUARANTEE:** *At Beta Car Repairs, repairs are our speciality. We guarantee the standards of our workmanship. This means that for any failings in our workmanship, the repair will be free of charge to you and you may claim a discount on your next repair visit. If you believe you have a claim under our guarantee, please tell our staff who will take care of you.*

**LOW GUARANTEE:** *At Beta Car Repairs, repairs are our speciality. We guarantee the standards of our workmanship. This means that for any failings in our workmanship, you may claim £10 off your next repair visit. If you believe*

*you have a claim under our guarantee, please report it to our Customer Service Team who will take care of you.*

You established that Beta Car Repairs had breached the guarantee in the process of repairing your car, hence you spoke to the workshop manager to claim the guarantee.

**Based on the bank's service guarantee policy / the company's repairs guarantee policy, you think that Beta Bank / Beta Car Repairs**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
is competent at handling delays in opening bank accounts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
understands your position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cares about your welfare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is genuinely concerned that you continue to use the bank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
keeps your best interests in mind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**You could raise concerns about the service received knowing that Beta Bank / Beta Car Repairs will**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
address them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
respond in a considerate manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## REMINDER

### *[Banking]*

**HIGH COMMUNICATION/CONCERN:** *On the phone, the customer service employee carefully listened to your complaint and then expertly explained that the delay in opening your bank account was due to identity and fraud checks taking longer than expected and a technical issue with the bank's internal IT systems, which caused delays in managing the backlog of account opening applications. The customer service employee sincerely apologized for the inconvenience caused and confirmed that all possible efforts would be made in order to resolve your problem. While you were on the phone, the employee asked the account opening team to speed up the process of opening your account and reported the problem to the branch manager looking after your application.*

**LOW COMMUNICATION/CONCERN:** *On the phone, the customer service employee appeared disinterested about your problem and struggled to clarify the reason for the delay by saying that the bank frequently experiences delays in opening new bank accounts and there is nothing that can be done about similar issues. The customer service employee added that the process of opening your bank account could not be speeded up as other customers had been waiting and their queries had priority.*

### *[Car Repair]*

**HIGH COMMUNICATION/CONCERN:** *The workshop manager carefully listened to your complaint and then expertly explained that the engineer replaced the condenser in your car, as this was leaking. However, the air conditioning system in your car may still fail to work if it also needs to be recharged with some lubricant. The workshop manager sincerely apologized for the inconvenience caused to you and confirmed that all possible efforts would be made in order to resolve your problem. The workshop manager then called the engineer who had worked on your car repair to look into the problem and confirmed that a couple of hours were needed to finish the work.*

**LOW COMMUNICATION/CONCERN:** *The workshop manager appeared disinterested about your complaint and struggled to clarify the reason for the problem with your car by saying that situations like yours can happen when repairing cars, and there is nothing that the engineers at Beta Car Repairs can do about it. Annoyed by your complaint, the workshop manager also said that one of their engineers would be asked to look into the problem on your car, either the following day or the day after, once repairs for other customers who had priority had been completed.*

**Based on the situation you have just read, you think that customer service employees at Beta Bank / the staff at Beta Car Repairs**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
are frank when handling problems such as delays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
are on your side	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
are understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
are competent at handling delays in opening bank accounts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
are honest if problems such as delays arise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
care for you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**You could raise concerns about the service received knowing that customer service employees at Beta Bank / staff at Beta Car Repairs will**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
listen to your concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
respond in a considerate manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
display a caring attitude in addressing your concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Based on the hypothetical situation described earlier and imagining yourself as the customer of Beta Bank / Beta Car Repairs, you would**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
agree with Beta Bank's service guarantee policy on handling delays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
like the way Beta Bank handles customer complaints	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
feel proud to be a client of Beta Bank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
care about the long term success of Beta Bank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How likely would you be to**

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely nor Unlikely	Somewhat Likely	Likely	Very Likely
continue to use Beta Bank as your bank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
consider Beta Bank if you need banking services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tell your friends to try Beta Bank if they are looking for a bank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
recommend Beta Bank banking services to other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**Based on the hypothetical situation you have read, you think that Beta Bank offers its service guarantee / Beta Car Repairs offer their repairs guarantee policy in order to**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
serve its own interest of keeping customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increase profit at the expense of its customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
take advantage of its customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Based on the efforts made in handling the delay with your account opening, you think that the customer service employee at Beta Bank / the failed repair of your car's air conditioning, you think that the workshop manager at Beta Car Repairs**

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
has bad intentions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
intends to take advantage of you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is motivated by his/her own interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tries to exploit customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### **SECTION 3: DETAILS ABOUT YOUR YOURSELF**

**Please indicate your gender**

- Male
- Female

**Please indicate your age group**

- 19 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 or above

**Please indicate your current profession**

- Student
- Self-employed
- Employed
- Other

**Please indicate your educational level**

- GSCE / GCE
- Diploma
- Undergraduate degree
- Postgraduate degree
- Other

**Please indicate your current level of annual income**

- Up to £19,000
- £20,000 - £29,000
- £30,000 - £39,000
- £40,000 - £49,000
- £50,000 or more

**You have successfully completed the survey.**

## APPENDIX F: List of the questionnaire items

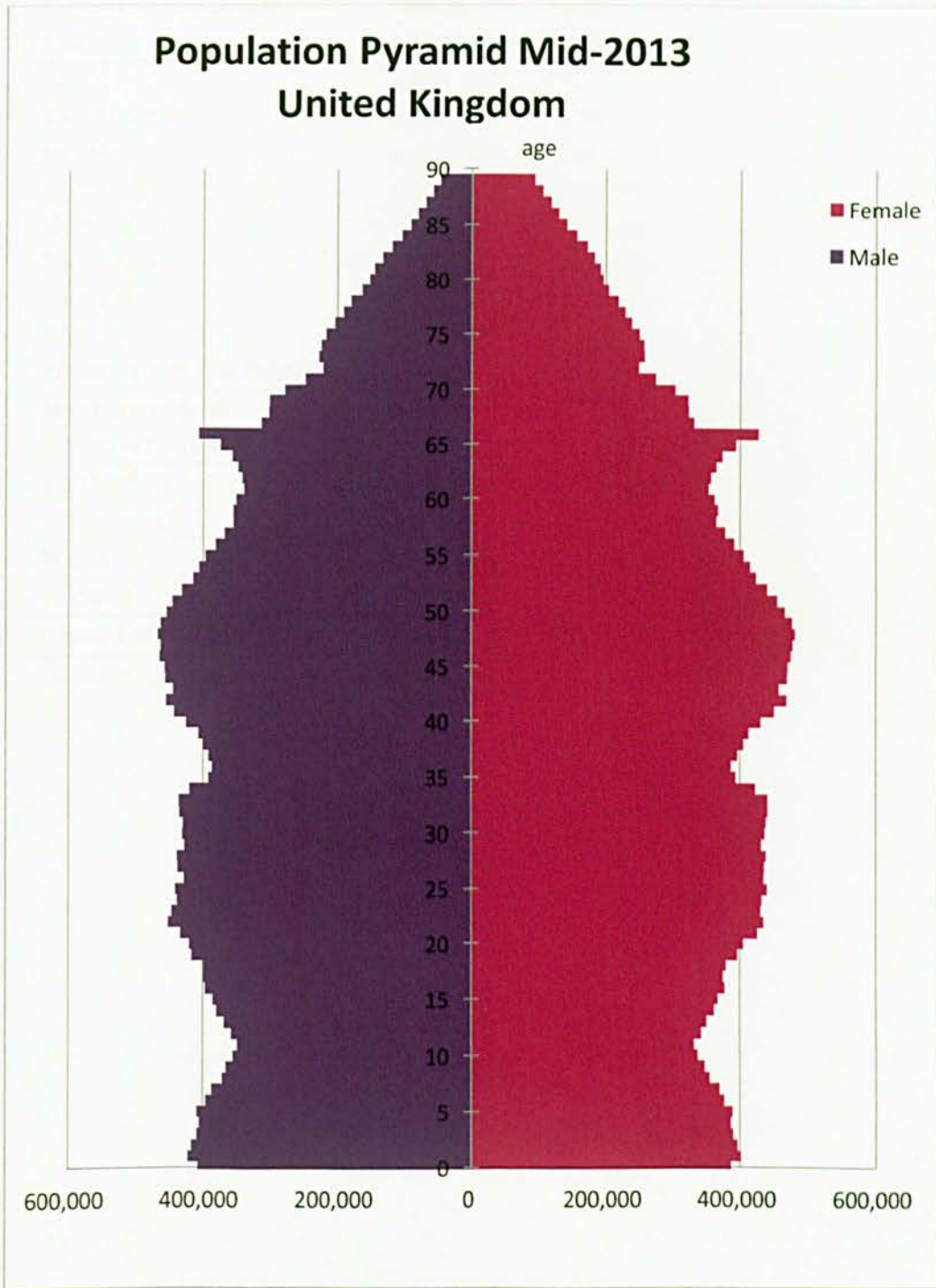
Constructs	Contextualised items	Scores	Source(s)
Distributive Justice	<ul style="list-style-type: none"> <li>- Although the delay caused you problems, claiming the guarantee resulted in a positive outcome for you</li> <li>- Given the inconvenience caused by the delay, the guarantee compensation was fair</li> <li>- Given the time and effort spent complaining, the compensation received as part of FIRM NAME guarantee policy was fair</li> <li>- In claiming the guarantee, you received what you needed</li> <li>- Overall, the response to the delay was fair</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Smith <i>et al.</i> (1999); Maxham and Netemeyer (2002)
Procedural Justice	<ul style="list-style-type: none"> <li>- The process of claiming the guarantee resulted in a quick response to the delay</li> <li>- You feel that FIRM NAME responded in a timely fashion to the delay</li> <li>- With respect to its service guarantee, FIRM NAME handled your delay in a fair manner</li> <li>- With respect to its service guarantee, FIRM NAME showed adequate flexibility in handling your delay</li> <li>- Overall, FIRM NAME has a fair guarantee policy to handle delay</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Smith <i>et al.</i> (1999); Maxham and Netemeyer (2002)
Interpersonal Justice	<p>You believe that the customer service staff at FIRM NAME ...</p> <ul style="list-style-type: none"> <li>- treated you in a polite manner</li> <li>- treated you with dignity</li> <li>- treated you with respect</li> <li>- showed a real interest in trying to be fair when resolving the problem</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Colquitt (2001); Maxham and Netemeyer (2002)
Informational Justice	<p>In the process of handling the delay, the customer service staff at FIRM NAME ...</p> <ul style="list-style-type: none"> <li>- timely informed you about the reason for the delay</li> <li>- gave you a reasonable explanation for the delay</li> <li>- gave you the information you needed</li> <li>- was sincere in communicating with you</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Colquitt (2001)
Firm reputation for fairness	<p>Based on the scenario you read, it seems that:</p> <ul style="list-style-type: none"> <li>- FIRM NAME has a reputation for being concerned about customer needs</li> <li>- FIRM NAME has a reputation for taking customer rights seriously</li> <li>- FIRM NAME has a reputation for treating customers fairly</li> <li>- FIRM NAME cares about its customers regardless of how much money they spend</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Walsh and Beatty (2007)
Cognitive Trust in the Firm	<p>Based on FIRM NAME's guarantee policies for handling the delay, you feel FIRM NAME:</p> <ul style="list-style-type: none"> <li>- is competent about handling delays in opening bank accounts/repairing cars</li> <li>- understands your position</li> <li>- cares about your welfare</li> <li>- is genuinely concerned that your relationship with the bank/auto repair shop continues</li> <li>- Keeps your best interests in mind</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Ganesan (1994), Doney and Cannon (1997)
Cognitive Trust in the Employee	<p>Based on the way the customer service employee behaved while handling the delay, you feel that employees at FIRM NAME:</p> <ul style="list-style-type: none"> <li>- Have been open in dealing with your problem</li> <li>- Have been on your side</li> <li>- Have been very understanding</li> <li>- Are competent about handling delays in opening bank accounts/repairing cars</li> <li>- Are honest about the problem, if problems such as delays arise</li> <li>- Care for you</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Ganesan (1994), Doney and Cannon (1997)
Affective Trust in the Firm	<p>You could raise concerns about the service you receive and know that FIRM NAME will:</p> <ul style="list-style-type: none"> <li>- address them</li> <li>- respond caringly</li> </ul>	7-point, Likert-type, strongly disagree to strongly agree	Johnson and Grayson (2005)

## Appendices

Constructs	Contextualised items	Scores	Source(s)
Affective Trust in the Employee	You could raise concerns about the service you receive with employees at FIRM NAME and know that they will: - Listen to your concerns - Respond caringly Display a warm attitude	7-point, Likert-type, strongly disagree to strongly agree	Johnson and Grayson (2005)
Affective Commitment	Based on the scenario you read and imagining yourself as a customer of FIRM NAME ... - You would feel proud to be a client of this company - You would care about the fate of FIRM NAME - You agree with FIRM NAME's policies on dealing with customers - You like the way FIRM NAME operates - You would identify yourself with an organisation like FIRM NAME, which operates as described in the scenario	7-point, Likert-type, strongly disagree to strongly agree	Harrison-Walker (2001), Fullerton (2005)
Behavioural Intentions	How likely would you be to ... - Continue using banking services from FIRM NAME - consider FIRM NAME to buy financial services/auto repair services - Tell your friends to try FIRM NAME if they are looking for banking/auto repair services - recommend FIRM NAME to other people	7-point, Likert-type, very unlikely to very likely	Maxham (2001)
Inferred Negative Motive (policy)	I believe the firm's service guarantee is offered: - to serve the firm's own interests - to increase profits at the expense of consumers - to take advantage of customers.	7-point, Likert-type, very unlikely to very likely	Kukar-Kinney <i>et al.</i> (2007)
Inferred Negative Motive (employee)	The efforts made in handling the FAILURE showed that the employee / workshop manager: - has bad intentions - intended to take advantage of me - is motivated by his/her own interests - tries to exploit customers	7-point, Likert-type, very unlikely to very likely	Joireman <i>et al.</i> (2013)
Realism checks	- I think FAILURE like the one described in the situation above do happen in real life - I can imagine myself as the customer portrayed in the situation above - I think the FAILURE described in the situation above is believable	7-point, Likert-type, strongly disagree to strongly agree	Sparks and McColl-Kennedy (2001)
<i>Manipulation checks</i>			
Payout	Please indicate how generous you think the company's compensation is: Not at all generous (1) – Very generous (7)	7-point semantic differential scale	Wirtz and Kum (2004)
EoI	Please indicate how difficult you think the process of claiming the service guarantee is: Extremely easy (1) – Extremely difficult (7)	7-point semantic differential scale	Wirtz and Kum (2004)
Employee concern	Please rate the degree of concern shown by the service employee in handling the problem: very low concern (1) – very high concern (7)	7-point semantic differential scale	Sparks and McColl-Kennedy (2001)
Employee communication	Please indicate the extent to which the employee communicated the reason of the delay: The employee provided no explanation (1) – the employee provided extensive explanation (7)	7-point semantic differential scale	Mattila (2006)
Reputation	FIRM NAME has a reputation for treating customers fairly	7-point, Likert-type, strongly disagree to strongly agree	Purohit and Srivastava (2001)
<i>Control variables</i>			
Failure severity	Please indicate whether the FAILURE caused you: - Minor inconveniences (1) – Major inconveniences (7) - Minor annoyance (1) – Major annoyance (7)	7-point semantic differential scale	Grégoire and Fisher (2008)

APPENDIX G: Socio-demographic characteristics of the UK population

Figure D3.4: Age distribution of the UK population



Source: UK Office of National Statistics, 2013

**Table D3.2:** The socio-demographic characteristics of the UK population

<b>Estimated population</b>	<b>Female</b>	<b>Male</b>	<b>Grand total</b>	<b>%</b>
<b>England</b>	<b>27,331,848</b>	<b>26,533,969</b>	<b>53,865,817</b>	
East	3,024,707	2,929,462	5,954,169	0.09
East Midlands	2,330,637	2,268,092	4,598,729	0.07
London	4,251,200	4,165,335	8,416,535	0.13
North East	1,332,027	1,278,454	2,610,481	0.04
North West	3,608,247	3,495,013	7,103,260	0.11
South East	4,468,936	4,323,690	8,792,626	0.14
South West	2,737,217	2,640,378	5,377,595	0.08
West Midlands	2,871,143	2,803,569	5,674,712	0.09
Yorkshire and The Humber	2,707,734	2,629,976	5,337,710	0.08
<b>Northern Ireland</b>	<b>932,580</b>	<b>897,145</b>	<b>1,829,725</b>	
Northern Ireland	932,580	897,145	1,829,725	0.03
<b>Scotland</b>	<b>2,741,168</b>	<b>2,586,532</b>	<b>5,327,700</b>	
Scotland	2,741,168	2,586,532	5,327,700	0.08
<b>Wales</b>	<b>1,567,185</b>	<b>1,515,227</b>	<b>3,082,412</b>	
Wales	1,567,185	1,515,227	3,082,412	0.05
<b>Grand Total</b>	<b>32,572,781</b>	<b>31,532,873</b>	<b>64,105,654</b>	

Source: UK Office of National Statistics, 2013

## APPENDIX H: Results from pilot study

Table E2.1 Manipulation check results – Pilot study

	<b>Banking</b>				<i>t</i>	Sig. (one-tailed)
	High		Low			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Guarantee Payout	3.18	1.18	2.15	1.15	5.71	.000
Ease of Invocation	3.77	1.10	2.38	1.40	7.11	.000
Employee Concern	3.91	1.02	2.19	1.58	8.30	.000
Employee Communication	4.02	1.18	1.78	1.34	11.40	.000
	<b>Car repair</b>				<i>t</i>	Sig. (one-tailed)
	High		Low			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Guarantee Payout	3.58	1.23	1.98	1.17	8.43	.000
Ease of Invocation	3.96	1.01	2.15	1.15	10.59	.000
Employee Concern	3.63	1.10	1.93	1.31	8.91	.000
Employee Communication	3.75	1.11	1.66	1.17	11.59	.000

Table E2.4 Indicator reliability

	<i>Banking</i>		<i>Car Repair</i>	
	Loadings	T Statistics	Loadings	T Statistics
AFC_1 <- COM	0.91	48.113	0.933	68.384
AFC_2 <- COM	0.957	130.588	0.972	207.461
AFC_3 <- COM	0.948	68.834	0.969	182.099
AFC_4 <- COM	0.924	40.757	0.950	62.419
AFC_5 <- COM	0.96	129.286	0.963	111.074
AT_E_1 <- TRU_EMPL	0.921	58.523	0.877	28.885
AT_E_2 <- TRU_EMPL	0.953	95.123	0.953	73.333
AT_E_3 <- TRU_EMPL	0.955	99.361	0.954	75.268
AT_F_1 <- TRU_FIRM	0.938	71.867	0.894	36.291
AT_F_2 <- TRU_FIRM	0.921	59.244	0.894	35.334
CT_E_1 <- TRU_EMPL	0.958	109.353	0.942	51.999
CT_E_2 <- TRU_EMPL	0.96	132.449	0.969	188.548
CT_E_3 <- TRU_EMPL	0.971	191.376	0.958	128.392
CT_E_4 <- TRU_EMPL	0.952	88.225	0.931	69.928
CT_E_5 <- TRU_EMPL	0.9	46.169	0.933	53.406
CT_E_6 <- TRU_EMPL	0.943	66.461	0.957	118.333
CT_F_1 <- TRU_FIRM	0.948	108.734	0.941	88.843
CT_F_2 <- TRU_FIRM	0.893	40.9	0.896	35.852
CT_F_3 <- TRU_FIRM	0.969	169.641	0.956	93.184
CT_F_4 <- TRU_FIRM	0.934	71.402	0.954	97.961
CT_F_5 <- TRU_FIRM	0.966	161.326	0.958	98.713
DJ_1 <- DJ	0.881	38.585	0.937	75.840
DJ_2 <- DJ	0.761	17.165	0.845	22.389
DJ_3 <- DJ	0.914	59.015	0.935	67.764
DJ_4 <- DJ	0.897	42.513	0.950	66.118
DJ_5 <- DJ	0.898	55.78	0.955	126.920
IFJ_1 <- IFJ	0.858	27.285	0.897	33.941
IFJ_2 <- IFJ	0.943	95.153	0.964	145.339
IFJ_3 <- IFJ	0.899	32.485	0.929	52.493
IFJ_4 <- IFJ	0.925	61.377	0.958	96.504
ITJ_1 <- ITJ	0.976	131.13	0.979	116.743
ITJ_2 <- ITJ	0.984	114.605	0.992	406.186
ITJ_3 <- ITJ	0.989	379.761	0.989	314.408
LOY_1 <- LOY	0.968	192.796	0.985	319.372
LOY_2 <- LOY	0.96	64.601	0.979	204.887
LOY_3 <- LOY	0.984	299.745	0.985	339.898
LOY_4 <- LOY	0.978	208.219	0.980	255.546
PJ_1 <- PJ	0.938	56.726	0.955	100.723
PJ_2 <- PJ	0.953	81.144	0.942	79.347
PJ_3 <- PJ	0.96	104.533	0.978	230.074
PJ_4 <- PJ	0.953	84.073	0.971	152.307



Table E2.6 Cross-loadings – Banking

	COM	TRU EMPL	TRU FIRM	DJ	IFJ	ITJ	LOY	PJ
COM_1	0.910	0.799	0.815	0.763	0.646	0.652	0.781	0.827
COM_2	0.957	0.867	0.846	0.773	0.730	0.715	0.860	0.840
COM_3	0.948	0.849	0.811	0.760	0.706	0.687	0.888	0.768
COM_4	0.924	0.824	0.769	0.683	0.673	0.649	0.840	0.732
COM_5	0.960	0.825	0.825	0.741	0.662	0.629	0.888	0.808
TRU_E_1	0.784	0.921	0.733	0.670	0.737	0.794	0.706	0.692
TRU_E_2	0.840	0.953	0.809	0.718	0.798	0.816	0.757	0.726
TRU_E_3	0.834	0.955	0.795	0.703	0.796	0.832	0.746	0.732
TRU_E_4	0.835	0.958	0.775	0.689	0.805	0.860	0.745	0.708
TRU_E_5	0.871	0.960	0.786	0.720	0.763	0.819	0.782	0.719
TRU_E_6	0.860	0.971	0.789	0.700	0.785	0.848	0.774	0.726
TRU_E_7	0.869	0.952	0.805	0.708	0.766	0.817	0.806	0.727
TRU_E_8	0.785	0.900	0.726	0.655	0.757	0.779	0.727	0.669
TRU_E_9	0.865	0.943	0.814	0.701	0.760	0.768	0.813	0.724
TRU_F_1	0.826	0.777	0.938	0.748	0.573	0.575	0.754	0.767
TRU_F_2	0.820	0.792	0.921	0.708	0.597	0.625	0.731	0.772
TRU_F_3	0.792	0.731	0.948	0.747	0.577	0.552	0.737	0.783
TRU_F_4	0.751	0.725	0.893	0.704	0.574	0.601	0.681	0.723
TRU_F_5	0.841	0.798	0.969	0.759	0.650	0.654	0.753	0.835
TRU_F_6	0.809	0.802	0.934	0.682	0.650	0.645	0.704	0.805
TRU_F_7	0.843	0.801	0.966	0.759	0.652	0.633	0.777	0.827
DJ_1	0.750	0.703	0.739	0.881	0.573	0.546	0.680	0.729
DJ_2	0.478	0.447	0.536	0.761	0.357	0.359	0.403	0.538
DJ_3	0.656	0.572	0.661	0.914	0.442	0.390	0.616	0.690
DJ_4	0.707	0.663	0.694	0.897	0.572	0.542	0.631	0.761
DJ_5	0.814	0.777	0.735	0.898	0.651	0.637	0.739	0.770
IFJ_1	0.584	0.684	0.541	0.471	0.858	0.671	0.502	0.528
IFJ_2	0.715	0.806	0.639	0.586	0.943	0.812	0.628	0.628
IFJ_3	0.625	0.695	0.549	0.557	0.899	0.698	0.543	0.564
IFJ_4	0.704	0.774	0.623	0.575	0.925	0.806	0.620	0.623
ITJ_1	0.675	0.829	0.636	0.560	0.811	0.976	0.580	0.602
ITJ_2	0.707	0.849	0.644	0.565	0.808	0.984	0.597	0.609
ITJ_3	0.709	0.861	0.644	0.575	0.819	0.989	0.608	0.614
LOY_1	0.895	0.803	0.777	0.697	0.637	0.610	0.968	0.722
LOY_2	0.864	0.744	0.742	0.689	0.579	0.561	0.960	0.677
LOY_3	0.889	0.811	0.782	0.697	0.627	0.609	0.984	0.716
LOY_4	0.877	0.773	0.743	0.700	0.626	0.574	0.978	0.687
PJ_1	0.777	0.680	0.767	0.743	0.557	0.534	0.673	0.938
PJ_2	0.825	0.800	0.835	0.767	0.681	0.671	0.673	0.953
PJ_3	0.820	0.705	0.813	0.778	0.625	0.579	0.699	0.960
PJ_4	0.795	0.679	0.777	0.781	0.596	0.565	0.697	0.953

Table E2.7 Cross-loadings – Car Repair

	COM	TRU EMPL	TRU FIRM	DJ	IFJ	ITJ	LOY	PJ
COM_1	0.933	0.852	0.779	0.816	0.634	0.624	0.865	0.786
COM_2	0.972	0.915	0.789	0.766	0.692	0.705	0.923	0.766
COM_3	0.969	0.866	0.776	0.753	0.704	0.657	0.939	0.722
COM_4	0.950	0.850	0.755	0.725	0.649	0.642	0.877	0.683
COM_5	0.963	0.857	0.742	0.758	0.678	0.639	0.917	0.699
TRU_E_1	0.787	0.878	0.663	0.616	0.635	0.701	0.711	0.590
TRU_E_2	0.841	0.953	0.658	0.630	0.752	0.785	0.790	0.601
TRU_E_3	0.833	0.954	0.646	0.610	0.740	0.787	0.790	0.574
TRU_E_4	0.824	0.942	0.676	0.692	0.767	0.796	0.756	0.607
TRU_E_5	0.897	0.969	0.693	0.748	0.761	0.791	0.837	0.692
TRU_E_6	0.855	0.958	0.655	0.682	0.771	0.819	0.794	0.639
TRU_E_7	0.894	0.931	0.754	0.764	0.716	0.731	0.844	0.709
TRU_E_8	0.833	0.933	0.629	0.695	0.756	0.762	0.775	0.632
TRU_E_9	0.917	0.957	0.707	0.753	0.746	0.753	0.872	0.693
TRU_F_1	0.659	0.578	0.894	0.601	0.286	0.330	0.673	0.635
TRU_F_2	0.708	0.669	0.895	0.641	0.401	0.432	0.718	0.679
TRU_F_3	0.756	0.645	0.941	0.711	0.396	0.387	0.755	0.724
TRU_F_4	0.703	0.646	0.897	0.712	0.428	0.425	0.673	0.746
TRU_F_5	0.780	0.686	0.956	0.742	0.443	0.407	0.767	0.756
TRU_F_6	0.790	0.719	0.954	0.735	0.428	0.456	0.766	0.763
TRU_F_7	0.810	0.711	0.958	0.730	0.445	0.422	0.798	0.755
DJ_1	0.769	0.728	0.692	0.937	0.529	0.544	0.706	0.802
DJ_2	0.585	0.515	0.631	0.845	0.383	0.364	0.550	0.686
DJ_3	0.715	0.633	0.678	0.936	0.451	0.404	0.680	0.794
DJ_4	0.788	0.706	0.723	0.950	0.516	0.495	0.722	0.830
DJ_5	0.815	0.780	0.744	0.955	0.587	0.588	0.758	0.843
IFJ_1	0.602	0.700	0.378	0.423	0.897	0.758	0.554	0.335
IFJ_2	0.692	0.765	0.447	0.545	0.964	0.797	0.663	0.463
IFJ_3	0.661	0.720	0.383	0.506	0.930	0.770	0.594	0.426
IFJ_4	0.674	0.754	0.425	0.533	0.958	0.797	0.638	0.436
ITJ_1	0.668	0.786	0.419	0.490	0.808	0.979	0.620	0.413
ITJ_2	0.673	0.807	0.438	0.523	0.832	0.992	0.620	0.443
ITJ_3	0.681	0.825	0.446	0.529	0.824	0.989	0.630	0.448
LOY_1	0.934	0.832	0.787	0.729	0.633	0.618	0.985	0.731
LOY_2	0.931	0.828	0.786	0.730	0.634	0.617	0.979	0.733
LOY_3	0.922	0.833	0.773	0.729	0.651	0.620	0.985	0.721
LOY_4	0.926	0.833	0.774	0.726	0.652	0.627	0.980	0.708
PJ_1	0.717	0.601	0.729	0.816	0.361	0.353	0.698	0.956
PJ_2	0.757	0.706	0.749	0.783	0.509	0.524	0.725	0.943
PJ_3	0.736	0.655	0.758	0.851	0.428	0.436	0.711	0.978
PJ_4	0.730	0.644	0.762	0.846	0.410	0.383	0.699	0.971

**Table E2.8 HTMT ratio**

<i>Banking</i>								
	<b>COM</b>	<b>DJ</b>	<b>TRU EMPL</b>	<b>TRU FIRM</b>	<b>IFJ</b>	<b>ITJ</b>	<b>LOY</b>	<b>PJ</b>
COM	1							
DJ	0.828	1						
TRU_EMPL	0.907	0.762	1					
TRU_FIRM	0.89	0.814	0.842	1				
IFJ	0.765	0.643	0.854	0.681	1			
ITJ	0.727	0.597	0.875	0.666	0.863	1		
LOY	0.93	0.742	0.818	0.798	0.662	0.616	1	
PJ	0.875	0.85	0.772	0.864	0.681	0.634	0.74	1
<i>Car Repair</i>								
	<b>COM</b>	<b>DJ</b>	<b>TRU EMPL</b>	<b>TRU FIRM</b>	<b>IFJ</b>	<b>ITJ</b>	<b>LOY</b>	<b>PJ</b>
COM	1							
DJ	0.821	1						
TRU_EMPL	0.924	0.749	1					
TRU_FIRM	0.822	0.776	0.732	1				
IFJ	0.726	0.557	0.809	0.451	1			
ITJ	0.695	0.533	0.829	0.449	0.858	1		
LOY	0.961	0.76	0.858	0.809	0.673	0.64	1	
PJ	0.783	0.886	0.692	0.8	0.46	0.45	0.751	1

Table E2.9 Confidence Intervals

	<i>Banking</i>		<i>Car Repair</i>	
	CI Low	CI Up	CI Low	CI Up
DJ -> COM	0.744	0.897	0.753	0.879
TRU_EMPL -> COM	0.861	0.947	0.889	0.952
TRU_EMPL -> DJ	0.665	0.845	0.662	0.821
TRU_FIRM -> COM	0.827	0.940	0.734	0.893
TRU_FIRM -> DJ	0.729	0.882	0.692	0.845
TRU_FIRM -> TRU_EMPL	0.764	0.906	0.627	0.822
IFJ -> COM	0.670	0.843	0.626	0.813
IFJ -> DJ	0.508	0.760	0.424	0.673
IFJ -> TRU_EMPL	0.790	0.908	0.741	0.871
IFJ -> TRU_FIRM	0.570	0.778	0.295	0.593
ITJ -> COM	0.628	0.813	0.589	0.785
ITJ -> DJ	0.466	0.716	0.391	0.655
ITJ -> TRU_EMPL	0.833	0.912	0.751	0.893
ITJ -> TRU_FIRM	0.548	0.766	0.306	0.580
ITJ -> IFJ	0.813	0.909	0.791	0.913
LOY -> COM	0.896	0.958	0.939	0.977
LOY -> DJ	0.649	0.819	0.680	0.830
LOY -> TRU_EMPL	0.737	0.886	0.793	0.909
LOY -> TRU_FIRM	0.717	0.866	0.732	0.870
LOY -> IFJ	0.550	0.762	0.565	0.765
LOY -> ITJ	0.510	0.714	0.529	0.738
PJ -> COM	0.809	0.926	0.695	0.854
PJ -> DJ	0.769	0.912	0.799	0.948
PJ -> TRU_EMPL	0.681	0.848	0.593	0.775
PJ -> TRU_FIRM	0.804	0.913	0.708	0.874
PJ -> IFJ	0.563	0.785	0.305	0.598
PJ -> ITJ	0.514	0.743	0.304	0.583
PJ -> LOY	0.646	0.821	0.672	0.818

## APPENDIX I: Results from main study

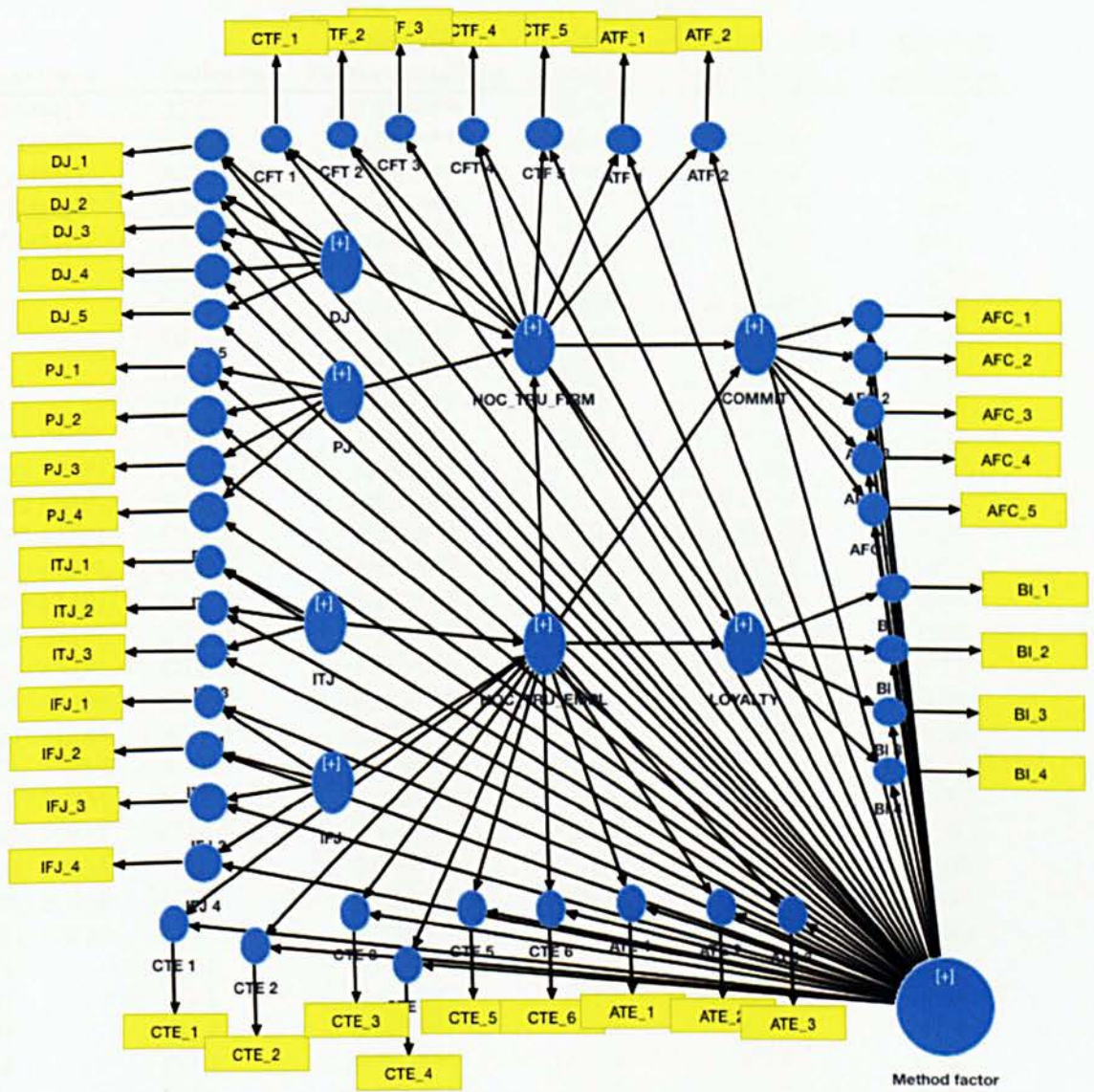
Table E3.1 Elicitation of justice perceptions

	<b>Banking</b>				<i>F</i>	Sig. (one-tailed)
	<i>High</i>		<i>Low</i>			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Distributive Justice						
Payout	4.57	1.34	3.68	1.48	30.73	.000
Procedural Justice						
Ease of invocation	4.65	1.58	2.75	1.61	110.76	.000
Interpersonal Justice						
Employee concern	5.72	0.94	1.90	1.30	897.07	.000
Informational Justice						
Employee communication	4.02	1.27	1.88	1.17	239.89	.000
	<b>Car repair</b>				<i>F</i>	Sig. (one-tailed)
	<i>High</i>		<i>Low</i>			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Distributive Justice						
Payout	5.15	1.26	3.30	1.61	142.60	.000
Procedural Justice						
Ease of invocation	5.29	1.32	2.91	1.61	226.60	.000
Interpersonal Justice						
Employee concern	5.87	0.98	2.41	1.45	670.25	.000
Informational Justice						
Employee communication	4.37	1.26	2.15	1.41	237.00	.000

**Table E3.2** Statistical remedies to detect Common Method Variance

<b>No.</b>	<b>Statistical remedies</b>	<b>Key Advantage(s)</b>	<b>Key Disadvantage(s)</b>
1	<i>Harman's single-factor test</i>	Easy to use; widely adopted	Method effects not statistically controlled
2	<i>Partiallying out social desirability</i>	Easy to use	Include a measure of social desirability; measurement model not considered
3	<i>Partiallying out a 'marker' variable</i>	Easy-to-implement, control for method biases	Identify the marker variable; assumption that CMV can only inflate relationships
4	<i>Partialing general factor score</i>	No source of common method bias is identified	Unclear if reflection of CMV or variance due to true causal relationships
5	<i>Controlling for directly measured latent method factor</i>	Allows measurement error	A priori understanding of sources of CMV
6	<i>Controlling for single unmeasured latent method factor</i>	No a priori understanding of sources of CMV	No identified causes of CMV
7	<i>Multiple-method factor</i>	Several methods factors examined concurrently	A priori understanding of potential sources of CMV
8	<i>Correlated uniqueness model</i>	Error terms of variables allowed	A priori understanding of potential sources of CMV
9	<i>Direct product model</i>	Interaction between method factor and predictor and/or criterion constructs overlooked	No control for main effect of method factor; no statistical control for method biases

Figure E3.1 Unmeasured latent factor approach to CMV



**Table E3.3** Results from UMLF approach – Banking

<b>Construct</b>	<b>Indicator</b>	<b>Banking</b>			
		<b>Substantive Factor Loadings</b>	<b>Squared Loadings</b>	<b>Method Factor Loadings</b>	<b>Squared Loadings</b>
COMMIT	AFC 1	0.879***	0.773	-0.003	0.00
COMMIT	AFC 2	0.618***	0.382	0.346***	0.12
COMMIT	AFC 3	1.005***	1.010	-0.049	0.00
COMMIT	AFC 4	1.112***	1.237	-0.195**	0.04
COMMIT	AFC 5	1.058***	1.119	-0.102**	0.01
DJ	DJ 1	0.885***	0.783	-0.022	0.96
DJ	DJ 2	0.962***	0.925	-0.268***	0.07
DJ	DJ 3	1.003***	1.006	-0.132***	0.02
DJ	DJ 4	0.855***	0.731	0.024	1.05
DJ	DJ 5	0.630***	0.397	0.341***	0.12
TRU EMPL	ATE 1	0.965***	0.931	-0.07	0.01
TRU EMPL	ATE 2	0.848***	0.719	0.09	1.19
TRU EMPL	ATE 3	0.837***	0.701	0.116**	0.01
TRU EMPL	CTE 1	1.224***	1.498	-0.445***	0.20
TRU EMPL	CTE 2	0.882***	0.778	0.073	0.01
TRU EMPL	CTE 3	0.907***	0.823	0.048	0.00
TRU EMPL	CTE 4	0.733***	0.537	0.216***	0.05
TRU EMPL	CTE 5	1.201***	1.442	-0.364***	0.13
TRU EMPL	CTE 6	0.731***	0.534	0.22***	0.05
TRU FIRM	ATF 1	0.935***	0.874	-0.033	0.94
TRU FIRM	ATF 2	0.808***	0.653	0.119***	0.01
TRU FIRM	CTF 1	0.929***	0.863	-0.014	0.97
TRU FIRM	CTF 2	0.970***	0.941	-0.087**	0.01
TRU FIRM	CTF 3	0.915***	0.837	0.025	0.00
TRU FIRM	CTF 4	0.931***	0.867	-0.011	0.00
TRU FIRM	CTF 5	0.955***	0.912	-0.002	0.00
IFJ	IFJ 1	0.805***	0.648	-0.062	0.00
IFJ	IFJ 2	0.822***	0.676	0.115***	0.01
IFJ	IFJ 3	0.882***	0.778	-0.048	0.00
IFJ	IFJ 4	0.904***	0.817	-0.021	0.00
ITJ	ITJ 1	1.006***	1.012	-0.027*	0.00
ITJ	ITJ 2	0.991***	0.982	0.001	1.00
ITJ	ITJ 3	0.972***	0.945	0.025**	0.00
LOY	BI 1	0.879***	0.773	0.09*	0.01
LOY	BI 2	0.920***	0.846	0.062**	0.00
LOY	BI 3	1.050***	1.103	-0.104**	0.01
LOY	BI 4	1.015***	1.030	-0.052	0.90
PJ	PJ 1	1.039***	1.080	-0.125***	0.02
PJ	PJ 2	0.892***	0.796	0.077**	0.01
PJ	PJ 3	0.975***	0.951	-0.006	0.99
PJ	PJ 4	0.920***	0.846	0.052**	0.00
<b>Averages</b>		<b>0.946</b>	<b>0.889</b>	<b>-0.005</b>	<b>0.223</b>



Table E3.4 Results from UMLF approach – Car Repair

Construct	Indicator	<i>Car Repair</i>			
		Substantive Factor Loadings	Squared Loadings	Method Factor Loadings	Squared Loadings
COMMIT	AFC 1	0.779***	0.607	0.094	0.01
COMMIT	AFC 2	0.709***	0.503	0.255***	0.07
COMMIT	AFC 3	1.017***	1.034	-0.06	0.88
COMMIT	AFC 4	1.114***	1.241	-0.171***	0.03
COMMIT	AFC 5	1.057***	1.117	-0.111*	0.01
DJ	DJ 1	0.890***	0.792	0.025	1.05
DJ	DJ 2	0.908***	0.824	-0.135**	0.02
DJ	DJ 3	1.015***	1.030	-0.105**	0.01
DJ	DJ 4	0.992***	0.984	-0.059	0.89
DJ	DJ 5	0.722***	0.521	0.251***	0.06
TRU EMPL	ATE 1	1.061***	1.126	-0.147*	0.02
TRU EMPL	ATE 2	1.069***	1.143	-0.124	0.02
TRU EMPL	ATE 3	0.995***	0.990	-0.041	0.00
TRU EMPL	CTE 1	0.746***	0.557	0.145	0.02
TRU EMPL	CTE 2	0.926***	0.857	0.038	0.00
TRU EMPL	CTE 3	1.049***	1.100	-0.079*	0.01
TRU EMPL	CTE 4	0.784***	0.615	0.167*	0.03
TRU EMPL	CTE 5	0.975***	0.951	-0.025	0.00
TRU EMPL	CTE 6	0.890***	0.792	0.07	0.00
TRU FIRM	ATF 1	0.937***	0.878	-0.009	0.00
TRU FIRM	ATF 2	0.854***	0.729	0.089**	0.01
TRU FIRM	CTF 1	0.994***	0.988	-0.061*	0.00
TRU FIRM	CTF 2	0.895***	0.801	0.056	0.00
TRU FIRM	CTF 3	0.955***	0.912	-0.002	0.00
TRU FIRM	CTF 4	0.988***	0.976	-0.058*	0.00
TRU FIRM	CTF 5	0.975***	0.951	-0.015	0.97
IFJ	IFJ 1	0.918***	0.843	-0.16***	0.03
IFJ	IFJ 2	0.912***	0.832	-0.009	0.00
IFJ	IFJ 3	0.880***	0.774	0.029	0.00
IFJ	IFJ 4	0.820***	0.672	0.117***	0.01
ITJ	ITJ 1	0.998***	0.996	-0.02	0.00
ITJ	ITJ 2	0.997***	0.994	-0.009	0.00
ITJ	ITJ 3	0.962***	0.925	0.029	0.00
LOY	BI 1	0.934***	0.872	0.059***	0.00
LOY	BI 2	0.951***	0.904	0.042**	0.00
LOY	BI 3	1.042***	1.086	-0.057***	0.00
LOY	BI 4	1.029***	1.059	-0.044**	0.00
PJ	PJ 1	1.074***	1.153	-0.158***	0.02
PJ	PJ 2	0.841***	0.707	0.136***	0.02
PJ	PJ 3	0.934***	0.872	0.027	0.00
PJ	PJ 4	0.966***	0.933	-0.009	0.00
<b>Averages</b>		<b>0.964</b>	<b>0.916</b>	<b>-0.001</b>	<b>0.105</b>

Table E3.6 Indicator reliability

	<i>Banking</i>		<i>Car Repair</i>	
	Mean	T Statistics	Mean	T Statistics
AFC_1 <- COM	0.876	52.262	0.867	42.532
AFC_2 <- COM	0.942	131.413	0.952	148.666
AFC_3 <- COM	0.959	212.390	0.959	175.664
AFC_4 <- COM	0.929	74.650	0.950	78.552
AFC_5 <- COM	0.962	216.100	0.952	110.840
ATE_1 <- TRU_EMPL	0.900	69.509	0.923	83.099
ATE_2 <- TRU_EMPL	0.932	106.709	0.952	115.005
ATE_3 <- TRU_EMPL	0.945	130.883	0.957	124.435
ATF_1 <- TRU_FIRM	0.907	79.470	0.931	70.362
ATF_2 <- TRU_FIRM	0.908	63.509	0.931	70.664
BI_1 <- LOY	0.961	196.444	0.988	314.568
BI_2 <- LOY	0.977	268.696	0.989	666.730
BI_3 <- LOY	0.956	70.309	0.990	761.124
BI_4 <- LOY	0.968	195.028	0.988	593.834
CTE_1 <- TRU_EMPL	0.810	30.232	0.881	42.060
CTE_2 <- TRU_EMPL	0.950	154.652	0.962	204.143
CTE_3 <- TRU_EMPL	0.951	154.049	0.974	305.515
CTE_4 <- TRU_EMPL	0.935	129.101	0.942	72.460
CTE_5 <- TRU_EMPL	0.861	43.950	0.952	111.590
CTE_6 <- TRU_EMPL	0.936	122.691	0.956	176.184
CTF_1 <- TRU_FIRM	0.917	77.905	0.942	130.924
CTF_2 <- TRU_FIRM	0.895	47.400	0.942	106.294
CTF_3 <- TRU_FIRM	0.936	99.812	0.953	157.199
CTF_4 <- TRU_FIRM	0.921	74.960	0.938	101.262
CTF_5 <- TRU_FIRM	0.953	167.452	0.961	200.182
DJ_1 <- DJ	0.869	39.683	0.915	64.944
DJ_2 <- DJ	0.724	18.065	0.788	23.437
DJ_3 <- DJ	0.893	69.622	0.926	89.410
DJ_4 <- DJ	0.883	41.949	0.944	132.478
DJ_5 <- DJ	0.915	104.390	0.933	112.284
IFJ_1 <- IFJ	0.752	22.235	0.792	26.216
IFJ_2 <- IFJ	0.909	79.023	0.908	78.768
IFJ_3 <- IFJ	0.845	38.390	0.901	58.630
IFJ_4 <- IFJ	0.891	59.539	0.911	81.126
ITJ_1 <- ITJ	0.986	396.766	0.982	250.972
ITJ_2 <- ITJ	0.992	534.300	0.989	450.699
ITJ_3 <- ITJ	0.991	403.248	0.986	367.743
PJ_1 <- PJ	0.939	76.132	0.941	99.501
PJ_2 <- PJ	0.953	115.683	0.954	122.773
PJ_3 <- PJ	0.971	255.359	0.957	94.248
PJ_4 <- PJ	0.961	196.566	0.959	158.206

Table E3.8 Cross-loadings – Banking

	COM	TRU EMPL	TRU FIRM	DJ	IFJ	ITJ	LOY	PJ
COM_1	0.877	0.699	0.700	0.698	0.461	0.482	0.758	0.706
COM_2	0.942	0.863	0.730	0.706	0.610	0.675	0.853	0.702
COM_3	0.960	0.778	0.755	0.681	0.527	0.545	0.886	0.694
COM_4	0.929	0.746	0.710	0.631	0.511	0.517	0.844	0.617
COM_5	0.962	0.783	0.741	0.672	0.542	0.565	0.883	0.648
TRU_E_1	0.721	0.900	0.577	0.620	0.673	0.746	0.670	0.554
TRU_E_2	0.771	0.932	0.638	0.620	0.716	0.819	0.733	0.586
TRU_E_3	0.791	0.945	0.644	0.647	0.719	0.816	0.752	0.600
TRU_E_4	0.597	0.810	0.476	0.483	0.548	0.608	0.570	0.422
TRU_E_5	0.806	0.950	0.641	0.660	0.682	0.768	0.764	0.598
TRU_E_6	0.790	0.951	0.622	0.653	0.719	0.816	0.758	0.587
TRU_E_7	0.818	0.935	0.670	0.660	0.675	0.740	0.780	0.621
TRU_E_8	0.677	0.862	0.506	0.523	0.582	0.630	0.648	0.465
TRU_E_9	0.832	0.936	0.680	0.648	0.672	0.730	0.788	0.616
TRU_F_1	0.689	0.594	0.907	0.555	0.389	0.389	0.681	0.600
TRU_F_2	0.722	0.656	0.908	0.577	0.473	0.502	0.702	0.615
TRU_F_3	0.724	0.594	0.917	0.554	0.380	0.388	0.730	0.612
TRU_F_4	0.654	0.568	0.895	0.528	0.415	0.405	0.660	0.539
TRU_F_5	0.743	0.631	0.936	0.581	0.427	0.418	0.742	0.607
TRU_F_6	0.718	0.610	0.921	0.571	0.383	0.417	0.711	0.604
TRU_F_7	0.755	0.634	0.953	0.599	0.414	0.403	0.741	0.615
DJ_1	0.605	0.563	0.507	0.869	0.403	0.456	0.550	0.688
DJ_2	0.452	0.404	0.357	0.725	0.229	0.300	0.380	0.513
DJ_3	0.608	0.534	0.522	0.893	0.366	0.381	0.542	0.662
DJ_4	0.627	0.602	0.551	0.884	0.444	0.423	0.578	0.632
DJ_5	0.766	0.727	0.654	0.914	0.579	0.611	0.719	0.723
IFJ_1	0.406	0.518	0.303	0.355	0.753	0.569	0.383	0.316
IFJ_2	0.567	0.704	0.462	0.499	0.909	0.774	0.554	0.411
IFJ_3	0.450	0.595	0.355	0.414	0.846	0.622	0.436	0.358
IFJ_4	0.501	0.652	0.389	0.386	0.891	0.719	0.483	0.329
ITJ_1	0.580	0.797	0.436	0.501	0.771	0.986	0.558	0.418
ITJ_2	0.592	0.807	0.447	0.521	0.790	0.992	0.576	0.440
ITJ_3	0.605	0.813	0.465	0.521	0.795	0.991	0.593	0.441
LOY_1	0.880	0.775	0.758	0.651	0.536	0.576	0.961	0.652
LOY_2	0.889	0.785	0.768	0.647	0.550	0.589	0.977	0.647
LOY_3	0.848	0.735	0.722	0.618	0.509	0.535	0.957	0.606
LOY_4	0.878	0.750	0.732	0.633	0.527	0.544	0.968	0.627
PJ_1	0.630	0.523	0.579	0.655	0.365	0.370	0.562	0.939
PJ_2	0.705	0.638	0.630	0.723	0.429	0.455	0.646	0.953
PJ_3	0.702	0.589	0.641	0.742	0.384	0.413	0.633	0.971
PJ_4	0.713	0.606	0.639	0.761	0.414	0.433	0.662	0.961

**Table E3.9 Cross-loadings – Car Repair**

	COM	TRU EMPL	TRU FIRM	DJ	IFJ	ITJ	LOY	PJ
COM_1	0.866	0.753	0.703	0.763	0.467	0.596	0.737	0.758
COM_2	0.952	0.905	0.709	0.731	0.650	0.778	0.872	0.725
COM_3	0.959	0.854	0.723	0.697	0.595	0.714	0.911	0.681
COM_4	0.950	0.835	0.710	0.689	0.582	0.700	0.877	0.663
COM_5	0.952	0.852	0.695	0.686	0.607	0.703	0.889	0.680
TRU_E_1	0.805	0.923	0.653	0.623	0.614	0.783	0.761	0.633
TRU_E_2	0.839	0.952	0.684	0.635	0.628	0.800	0.794	0.654
TRU_E_3	0.858	0.957	0.698	0.650	0.664	0.799	0.813	0.648
TRU_E_4	0.787	0.882	0.705	0.656	0.585	0.700	0.754	0.649
TRU_E_5	0.878	0.962	0.700	0.676	0.666	0.802	0.839	0.659
TRU_E_6	0.867	0.974	0.694	0.670	0.664	0.830	0.824	0.652
TRU_E_7	0.866	0.942	0.729	0.682	0.612	0.775	0.842	0.673
TRU_E_8	0.860	0.952	0.692	0.659	0.637	0.785	0.814	0.661
TRU_E_9	0.875	0.956	0.712	0.679	0.650	0.795	0.831	0.662
TRU_F_1	0.690	0.686	0.931	0.616	0.442	0.547	0.655	0.689
TRU_F_2	0.707	0.722	0.931	0.652	0.473	0.584	0.669	0.712
TRU_F_3	0.709	0.673	0.942	0.615	0.434	0.492	0.684	0.654
TRU_F_4	0.723	0.711	0.943	0.673	0.479	0.566	0.674	0.698
TRU_F_5	0.723	0.699	0.953	0.662	0.464	0.536	0.677	0.675
TRU_F_6	0.701	0.670	0.938	0.641	0.432	0.490	0.663	0.654
TRU_F_7	0.732	0.702	0.961	0.648	0.470	0.532	0.697	0.667
DJ_1	0.684	0.636	0.660	0.915	0.484	0.517	0.607	0.757
DJ_2	0.553	0.531	0.486	0.790	0.405	0.443	0.467	0.615
DJ_3	0.683	0.597	0.606	0.926	0.427	0.477	0.595	0.769
DJ_4	0.708	0.634	0.632	0.944	0.431	0.517	0.610	0.793
DJ_5	0.783	0.734	0.678	0.933	0.578	0.659	0.712	0.814
IFJ_1	0.411	0.474	0.300	0.371	0.792	0.532	0.418	0.314
IFJ_2	0.555	0.599	0.438	0.439	0.908	0.669	0.583	0.412
IFJ_3	0.585	0.599	0.443	0.499	0.901	0.638	0.578	0.463
IFJ_4	0.611	0.673	0.494	0.499	0.911	0.723	0.612	0.453
ITJ_1	0.721	0.815	0.548	0.566	0.724	0.981	0.688	0.573
ITJ_2	0.741	0.821	0.559	0.568	0.716	0.989	0.708	0.573
ITJ_3	0.750	0.823	0.573	0.589	0.731	0.986	0.719	0.584
LOY_1	0.917	0.854	0.720	0.673	0.626	0.714	0.988	0.686
LOY_2	0.912	0.855	0.715	0.665	0.630	0.721	0.989	0.683
LOY_3	0.898	0.835	0.695	0.654	0.618	0.696	0.990	0.671
LOY_4	0.900	0.841	0.699	0.650	0.619	0.698	0.988	0.655
PJ_1	0.654	0.589	0.654	0.758	0.396	0.491	0.582	0.942
PJ_2	0.739	0.715	0.712	0.804	0.530	0.633	0.681	0.955
PJ_3	0.723	0.679	0.687	0.795	0.453	0.573	0.666	0.957
PJ_4	0.730	0.653	0.689	0.820	0.416	0.528	0.666	0.959

**Table E3.10** Discriminant validity - HTMT ratio

<i>Banking</i>									
	COM	DJ	TRU EMPL	TRU FIRM	IFJ	ITJ	LOY	PJ	
COM	1.000								
DJ	0.761	1.000							
TRU_EMPL	0.852	0.696	1.000						
TRU_FIRM	0.805	0.641	0.682	1.000					
IFJ	0.615	0.525	0.785	0.482	1.000				
ITJ	0.611	0.532	0.826	0.463	0.849	1.000			
LOY	0.933	0.683	0.805	0.793	0.591	0.591	1.000		
PJ	0.745	0.797	0.631	0.671	0.452	0.446	0.673	1.000	
<i>Car Repair</i>									
	COM	DJ	TRU EMPL	TRU FIRM	IFJ	ITJ	LOY	PJ	
COM	1.000								
DJ	0.795	1.000							
TRU_EMPL	0.920	0.721	1.000						
TRU_FIRM	0.778	0.706	0.751	1.000					
IFJ	0.657	0.555	0.707	0.507	1.000				
ITJ	0.765	0.601	0.844	0.578	0.773	1.000			
LOY	0.936	0.685	0.865	0.725	0.659	0.723	1.000		
PJ	0.775	0.870	0.709	0.739	0.499	0.598	0.695	1.000	

**Table E3.11 Confidence Intervals**

	<i>Banking</i>		<i>Car Repair</i>	
	CI Low	CI Up	CI Low	CI Up
DJ -> COM	0.704	0.812	0.744	0.839
TRU_EMPL -> COM	0.796	0.895	0.890	0.946
TRU_EMPL -> DJ	0.626	0.759	0.660	0.774
TRU_FIRM -> COM	0.743	0.866	0.713	0.838
TRU_FIRM -> DJ	0.548	0.731	0.635	0.774
TRU_FIRM ->				
TRU_EMPL	0.581	0.768	0.680	0.814
IFJ -> COM	0.509	0.706	0.574	0.733
IFJ -> DJ	0.399	0.623	0.460	0.641
IFJ -> TRU_EMPL	0.714	0.846	0.622	0.786
IFJ -> TRU_FIRM	0.367	0.589	0.404	0.599
ITJ -> COM	0.529	0.689	0.705	0.818
ITJ -> DJ	0.430	0.625	0.509	0.680
ITJ -> TRU_EMPL	0.782	0.862	0.799	0.883
ITJ -> TRU_FIRM	0.350	0.559	0.482	0.663
ITJ -> IFJ	0.796	0.896	0.698	0.836
LOY -> COM	0.907	0.955	0.915	0.953
LOY -> DJ	0.613	0.744	0.618	0.742
LOY -> TRU_EMPL	0.748	0.853	0.827	0.897
LOY -> TRU_FIRM	0.727	0.847	0.670	0.774
LOY -> IFJ	0.483	0.686	0.583	0.731
LOY -> ITJ	0.508	0.662	0.663	0.777
PJ -> COM	0.683	0.800	0.715	0.824
PJ -> DJ	0.743	0.849	0.821	0.911
PJ -> TRU_EMPL	0.545	0.714	0.642	0.768
PJ -> TRU_FIRM	0.586	0.745	0.674	0.799
PJ -> IFJ	0.338	0.553	0.391	0.593
PJ -> ITJ	0.339	0.547	0.512	0.669
PJ -> LOY	0.607	0.737	0.629	0.748

**Table E3.12** Multicollinearity test results

	<i>Banking VIF</i>	<i>Car Repair VIF</i>
Loyalty		
Trust in the firm	1.80	2.19
Trust in the employee	1.80	2.19
Commitment		
Trust in the firm	1.80	2.19
Trust in the employee	1.80	2.19
Trust in the firm		
Distributive Justice	2.77	3.61
Procedural Justice	2.45	3.56
Trust in the employee	1.93	2.11
Trust in the employee		
Interpersonal Justice	2.70	2.17
Informational Justice	2.70	2.17

---

**APPENDIX L: Approaches to testing moderation in PLS-SEM**
**Table E3.17** Advantages and disadvantages of approaches to testing moderation in PLS-SEM

<b>Approaches</b>	<b>Advantages</b>	<b>Disadvantages</b>
<b>Product Indicator</b>	Easy to implement	Works with reflective constructs only
<b>Two-stage</b>	Works with reflective and formative constructs	Moderating effect is not considered when estimating the latent variable scores
<b>Hybrid</b>	Path models with nonlinearities in the structural model	No software support
<b>Orthogonalizing</b>	Uncorrelated interaction term and first-order effect terms	Lower statistical power than other three approaches
<b>Multi-group Analysis</b>	Easy to implement	Equal variances for the populations of the groups included in the moderating variable