



**SERVICE RECOVERY PARADOX: CUSTOMERS’
RESPONSE TO A SERVICE FAILURE-RECOVERY
SITUATION IN A MOBILE
TELECOMMUNICATIONS CONTEXT**

BY

Raquel Vanessa Reis Silva Ferreira Soares

PhD Dissertation in Business and Management Studies

SUPERVISOR: JOÃO F. PROENÇA

2014

BIOGRAPHICAL NOTE

Raquel Vanessa Reis Silva Ferreira Soares was born on the 6th of February of 1985, in the city of Porto.

In 2003 she was admitted to the Faculty of Economics and Management of the Catholic University of Porto and in 2007 she graduated in Business Administration.

Her academic career was arranged with her professional activity. She soon started her professional career at a Banking Institution and in 2008 she started teaching at the University of Aveiro.

In 2010 she finished her MSc in Marketing at the Faculty of Economics and Management of the Catholic University of Porto and later that year she started attending the doctoral program in Business and Management Studies at the School of Economics and Management, of the University of Porto.

ACKNOWLEDGEMENTS

To my supervisor, Professor João F. Proença, for his professionalism, motivation, support, advices and friendship. A great professional and a great example.

To all the professors who directly or indirectly contributed and accompanied me on this journey, especially to Professor João Gama.

To the telecommunications company that allowed me to access to their customer service database and enabled me to develop a very rich and interesting study in terms of academic and management contributions.

To those who participated in the qualitative component of this study.

To all researchers and reviewers who had the opportunity to comment and advise me, in the conferences I have presented my papers or in the Journals publication process. My sincere thanks especially to Professor P.K. Kannan, Professor Jay and Christina.

To Ana and Inês for their laughs and friendship.

To Marisa for her help, strength and friendship.

To my sister, my mother, my father, my grandparents and my André for having always believed in me. Without your love, support and patience, I would never have been able to get here.

To my profession, to the dance and especially to my little yorkie for having inspired me.

ABSTRACT

Since service failures are difficult to avoid in the services context due to their characteristics, an in-depth understanding of how service failure and recovery affect customer responses represents a relevant topic for academics and practitioners. The service recovery paradox phenomenon has emerged as a significant effect in the services marketing literature because it is an opportunity to achieve higher levels of customer satisfaction and consequently, higher levels of loyalty.

The purpose of this study is to explore and discuss the impact of customers' complaints and their treatment by the service provider in the commercial relationship after the occurrence of a service failure. This study assesses customers' behavior instead of behavioral intentions through a firm's call center database which differs from the previous studies, broadening our knowledge about service recovery paradox phenomenon and helping us to identify factors contributing to its existence.

The overall results confirm the existence of the service recovery paradox in this setting and indicate critical variables influencing this phenomenon, namely the recovery timeliness, the customers' age and the failure context (failure type and failure severity).

The research presents theoretical and managerial contributions. It produces an understanding of the service recovery paradox phenomenon, bringing a new approach to the analysis of customers' responses, allowing managers a better complaint management.

Further research may explore the relevance of service recovery paradox in a discrete purchasing setting and test the impact of other variables, such as contextual factors, which may play an important role in customers' response.

RESUMO

Devido às características dos serviços, as suas falhas são muitas vezes difíceis ou até impossíveis de evitar, pelo que compreender de forma mais profunda como estas e os respetivos esforços de recuperação dos prestadores de serviços influenciam o comportamento dos clientes, representa um tópico de interesse tanto para académicos como para gestores.

O paradoxo da recuperação de clientes emergiu como um efeito significativo na literatura de marketing de serviços por ser considerado uma oportunidade para se atingir elevados níveis de satisfação e de lealdade dos clientes.

Este estudo tem como objetivo testar e discutir o impacto das reclamações dos clientes e o seu tratamento por parte do prestador de serviço nas relações comerciais, analisando o comportamento dos clientes em vez de intenções. Considera, ainda, a perspetiva da empresa, ampliando o conhecimento sobre o fenómeno da recuperação de clientes e procurando identificar os fatores que contribuem para a sua existência.

A existência do paradoxo da recuperação de clientes foi confirmada neste contexto e foram identificadas as variáveis que mais contribuem para a sua ocorrência, sendo de destacar a rapidez com que é resolvida a falha, a idade dos clientes e o contexto das falhas de serviço (tipo e magnitude da falha).

O estudo apresenta contribuições teóricas e práticas. Produz conhecimento através de uma melhor compreensão do fenómeno do paradoxo da recuperação de clientes, potenciando uma nova abordagem de investigação resultante da análise das respostas efetivas dos clientes, permitindo aos gestores um melhor entendimento do fenómeno e uma melhor gestão das reclamações.

A investigação futura pode explorar a relevância do paradoxo da recuperação de clientes num contexto de compra não continuado e testar o impacto de outras variáveis, tais como fatores contextuais que podem assumir um papel importante na resposta dos clientes.

CONTENTS

BIOGRAPHICAL NOTE	ii
ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
RESUMO.....	v
CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	x
LIST OF APPENDIX	xi
CHAPTER 1 - INTRODUCTION.....	1
1.1. Research scope.....	2
1.2. Customers' responses in a failure-recovery situation	4
1.2.1. Service failure-recovery situation	4
1.2.2. Behavioral outcomes and the role of service recovery paradox	8
1.3. The methodology of the research.....	11
1.4. Plan of presentation	13
CHAPTER 2 - THE SERVICE RECOVERY PARADOX IN A CALL CENTER SETTING: COMPENSATION AND TIMELINESS IN RECOVERING MOBILE TELECOMMUNICATIONS CUSTOMERS	16
2.1. Introduction.....	17
2.2. Theoretical background and hypotheses development	18
2.2.1. Service recovery efforts	18
2.2.2. The paradoxical effect and behavioral outcomes.....	20
2.2.3. The customers' fairness perception.....	21
2.2.4. The role of the relationship age between customer-firm relationship and demographic factors	23
2.3. Method	25
2.4. Results.....	27
2.5. Discussion and conclusions	30
2.6. Limitations and future research	33

Appendix - Methodological characteristics of SRP previous studies	35
CHAPTER 3 - WHO IS COMPLAINING AND REPURCHASING? THE ROLE OF DEMOGRAPHIC CHARACTERISTICS.....	36
3.1. Introduction.....	37
3.2. Theoretical background and hypotheses development	38
3.2.1. Complaint behavior and demographic characteristics	38
3.2.2. Post-recovery responses and the Service Recovery Paradox phenomenon	40
3.2.3. Post-recovery responses and demographic characteristics	40
3.3. Method	41
3.4. Results.....	42
3.5. Discussion and conclusions	45
3.6. Limitations and future research	47
CHAPTER 4 - DOES SERVICE FAILURE CONTEXT MATTER? CUSTOMERS' RESPONSE TO SERVICE RECOVERY	48
4.1. Introduction.....	49
4.2. Theoretical background and hypotheses development	50
4.2.1. Service failure – recovery context.....	50
4.2.2. The impact of service failure context on customers' behavioral outcomes	51
4.3. Method	53
4.4. Construct operationalization and measures	54
4.5. Results.....	55
4.6. Discussion and conclusions	58
4.7. Limitations and future research	60
CHAPTER 5 - Conclusions, limitations and further research.....	61
5.1. General conclusions	62
5.2. Scientific contributions	64
5.3. Managerial contributions	65
5.4. Limitations and suggestions for further research.....	66
REFERENCES	68

LIST OF TABLES

Chapter 1

Table 1.1 – Type of Relationships between service providers and their customers.....	5
Table 1.2 – Main characteristics of previous studies proving SRP.....	9
Table 1.3 – Main characteristics of previous studies not proving SRP.....	10
Table 1.4 – Call center’s database: data and their characteristics.....	12
Table 1.5 – Comparison of papers.....	14

Chapter 2

Table 2.1 – Customers’ profile.....	26
Table 2.2 – Table of means.....	28
Table 2.3 – Simple main effect test: Relationship age.....	29
Table 2.4 – Simple main effect test: Age.....	29
Table 2.5 – Simple main effect test: Relationship age.....	29
Table 2.6 – Simple main effect test: Age.....	29
Table 2.7 – Hypotheses validation.....	30

Chapter 3

Table 3.1 – Customers’ profile	42
Table 3.2 – Results of logistic regression analysis (complaint behavior as dependent variable).....	43
Table 3.3 – Results of logistic regression analysis (repurchase behavior as dependent variable)	44
Table 3.4 – Hypotheses validation.....	45

Chapter 4

Table 4.1 – Results of logistic analysis	55
Table 4.2 – Results of logistic analysis.....	57
Table 4.3 – Hypotheses validation.....	58

LIST OF FIGURES

Chapter 1

Figure 1.1 – Customers’ reactions to a service failure.....6

Figure 1.2 – Transaction-based service recovery.....7

Figure 1.3 – Relationship-based service recovery.....8

Chapter 5

Figure 5.1 – Factors contributing to the SRP.....63

LIST OF APPENDIX

Chapter 2

Methodological characteristics of SRP previous studies.....35

CHAPTER 1 - INTRODUCTION

1.1. Research scope

Due to globalization and liberalization of the mobile telecommunications market, firms have focused their attention on maintaining market share through retention of current customers, which is the key aspect in this industry (Seth *et al.*, 2005). Therefore, and because of the increasing susceptible choices of consumers, operators have to invest in the service quality and customers recovery, in order to minimize customer churn. Hence, the service recovery paradox phenomenon (SRP hereafter) has emerged as a significant effect in the services marketing literature because it is an opportunity to achieve higher levels of customer satisfaction and consequently, higher levels of loyalty (De Matos *et al.*, 2007). This phenomenon has been defined as the situation when customers, after a firm's recovery efforts, will be as satisfied or more than those who have not experienced any service failure (Mattila, 1999; Maxham and Netemeyer, 2002). Hart *et al.* (1990) stated that "a good recovery can turn angry, frustrated customers into loyal ones. It can, in fact, create more goodwill than if things had gone smoothly in the first place" (p. 148).

The aim of this study is to analyze the effects of final customers' complaints and firms' attempts to recover the customer-firm relationship on repurchase, investigating in which conditions the SRP phenomenon is more likely to occur in this setting.

There is a lack of research about the SRP in the services marketing literature. Despite the recognized benefits of such peculiar phenomenon and the hundreds studies about service recovery, only few empirical studies have examined it (Maxham, 2001; De Matos *et al.*, 2007). Moreover, two different and conflicting streams of research co-exist in the literature: some scholars found evidence of SRP while others did not. A greater understanding of such phenomenon is required due to the potential of the knowledge about the customers' reactions to service failures. It will help practitioners to enhance a complaints management (Lin *et al.*, 2011b), to face the services marketing challenges and to succeed in the increasingly competitive environment (Choi and Choi, 2014). It is crucial for firms to offer an exceptional service recovery after the occurrence of a critical incident. There are some empirical evidences showing a high rate of dissatisfaction, between 40 and 60 per cent, with the service recovery (Tax and Brown, 1998). Therefore, in terms of scientific and managerial perspectives, it is pertinent to examine SRP, how it occurs, which variables can affect it, contributing to improve

research in this area and help managers to understand and take advantage of the service recovery benefits, since recovery strategies have a strong impact on firms' revenues and profitability. We intend to fill this gap.

This study brought new insights to the SRP research, surpassing some limitations of previous studies:

- Secondary data was collected from a firms' database in a B2C environment;
- The service recovery paradox was measured through customers' complaints followed by customers' repurchase of the service, representing behavior instead of intentions, which is seldom used in the literature;
- Two groups were compared: a control group of customers with no service failures and a treatment group of customers who had experienced failures in the service delivery.

Three papers are presented in independent chapters. These three papers result from four discussed papers in International Conferences and from the comments received from reviewers, in the publishing process of them. They were proposed to better explore the customers' post-recovery responses and examine their antecedents, particularly in what concerns the SRP. The data we got from the firm can be divided according to its different businesses: mobile phone services and internet services. For the first paper we considered the mobile phone services and for the other two we used the internet services data, what explains the different size of data across the three works. This option was made because mobile phone services database was richer in the variables we used for the first paper. The same happened for internet services database and the second and third papers.

The research objectives were tested in a mobile telecommunications context, i.e. in a continuous purchasing setting instead of a discrete purchasing pattern. In this case, customers maintain long-term contractual relationships with a service provider and such reality is particularly suited to the goals of this study. We intended to develop a longitudinal study, analyzing the customers' responses during a year that includes one or more service failures. A contractual setting is the most appropriate to do it due to the continuous usage of the service and the relationship-focused perspective. These customers' responses were compared with a customers control group who did not experience any service failure.

Note that existing regulation in this sector allows that, for example, the customer switch from service provider without changing their current mobile number (Sohn and Lee, 2008). In this particular context, customers' switching decisions are made after substantial thoughts. Contracts usually have a minimum of 24 months of customer-service provider relationship and a switching decision before this period may imply penalties supported by the customer, working as an exit barrier. However, this sector provides a low customer-staff contact which is increasingly common to several sectors due to the spread development of technology (De Matos *et al.*, 2007). So, after a service failure, customer satisfaction will depend not only on the critical incident, but also on the manner in which employees reply to complaints (Tax and Brown, 1998; Cheong *et al.*, 2008); those who interact with customers play an elementary role in the impression that customer will form about the firm. The role of the call centers deserves special attention due to its growing importance as a component of the service provided by the firms, being the only contact interface for the customers in the most cases, specially for customers to submit their complaints (Dean, 2007). In fact, they have been defined in the literature as communication channels between firms and their customers for handling complaints and customer issues resolution, instead of a single unit of customer service or sales as they were initially recognized by firms. Call centers allow firms to differentiate themselves, positively impacting the firms competitive position compared to those who are just physically available during limited hours (Feinberg *et al.*, 2000).

1.2. Customers' responses in a failure-recovery situation

1.2.1. Service failure-recovery situation

In services, failures are difficult to avoid due to their characteristics and service recovery has become one of the ingredients for firms in the restoration of customer satisfaction and in the reinforcement of customer loyalty (Mccollough *et al.*, 2000; Maxham, 2001; Maxham and Netemeyer, 2002; Harris *et al.*, 2006).

Grönroos (2000) defined a service as "a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems." (p.46). Lovelock (1983), in its seminal paper, classified services in a four-way scheme

according to service act nature and who or what is the direct recipient of the service: (i) tangible actions to people’s bodies (e.g. airline transportation); (ii) tangible actions to goods and other physical possessions (e.g. industrial equipment repair and maintenance); (iii) intangible actions directed at people’s mind (e.g. education) and finally (iv) intangible actions directed at people’s intangible assets (e.g. telephone subscription). Service providers enter into ongoing relationships with their customers, what was also categorized by Lovelock (1983). Table 1.1 shows the type of relationship service providers have with their customers: whether it is a “membership” or no formal relationship with their customers and whether the service is delivered on a continuous or discrete basis.

Table 1.1 - Type of Relationships between service providers and their customers

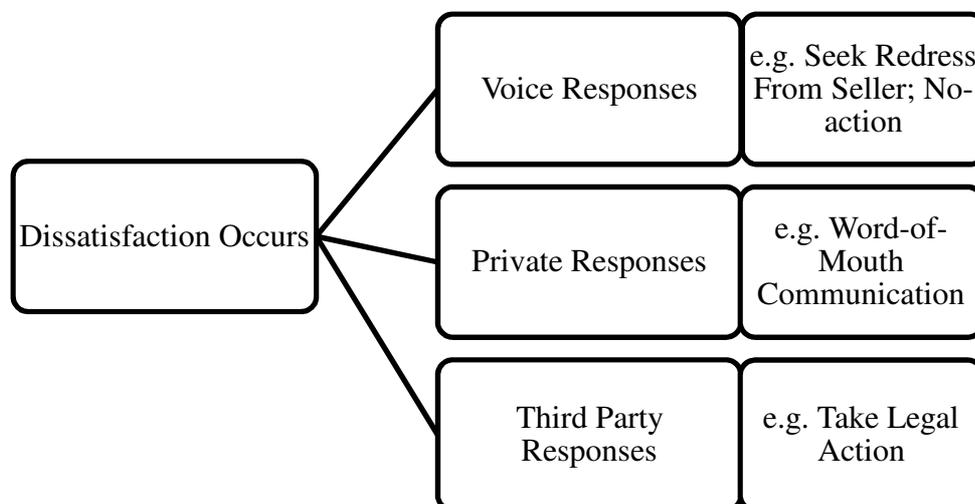
		Type of relationship between parties	
		"Membership" Relationship	No formal Relationship
Nature of Service Delivery	Continuous Delivery of Service	Telecommunications subscription Banking College enrollment	Radio station Public highway
	Discrete Transactions	Commuter ticket or Transit pass	Mail service Restaurant Car rental

Source: adapted from Lovelock (1983).

De Matos *et al.* (2013) in their recent study found that customers with a longer relationship with the service provider show higher intentions to remain loyal to it. They might keep doing business with the same service provider even after a service failure. Relationship-based customers are expected to engage in a continuous purchasing setting, showing cooperation and intention of future exchanges rather than be interested only in discrete transactions with a short-term perspective as transaction-based customers are.

Although service providers try to offer a service without problems, it is recognized that it is quite difficult to happen at the first service encounter, especially because of services' characteristics (Michel and Meuter, 2008). The occurrence of those problems increases as service encounters increase (Wang *et al.*, 2014). The services nature is one of the main variable which increasing the likelihood of errors and problems (Brown *et al.*, 1996). The term "service failure" is usually defined as a situation where customers' needs are not adequately satisfied by the service provider (Bitner *et al.*, 1990). It is a real or perceived problem in the service encounter which occurs during the customers' experience (Maxham, 2001). In this context, customers can react in distinct ways to service failures. Singh (1988) proposed a model of consumer complaint behavior (CCB) responses (Figure 1.1). Indeed, CCB is a multiple set of behavioral and non-behavioral responses caused by a service failure (Singh, 1988). Service failures can enhance negative post-purchase behavior and negative word-of-mouth (Huang and Chang, 2008).

Figure 1.1 - Customers' reactions to a service failure

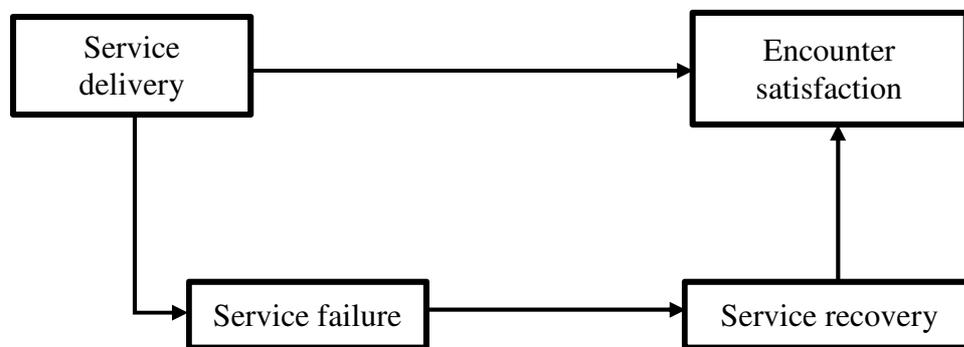


Source: Singh (1988).

Any recovery response must fix the immediate problem and restore equity to a possibly damaged on the customer-firm relationship (Smith *et al.*, 1999). After that problem, through service recovery, firms try to compensate customers in an attempt to minimize the damage caused (Hart *et al.*, 1990). Apologies, explanations, discounts, coupons and

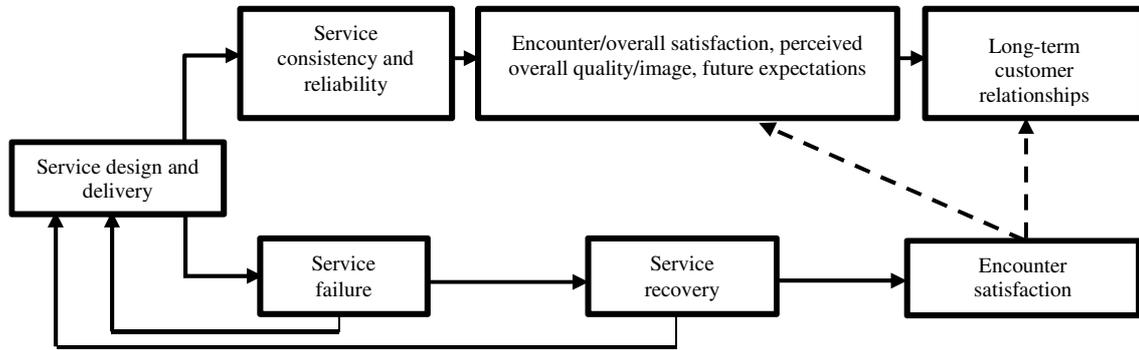
free products are good examples of compensations that service providers offer to those customers (Smith *et al.*, 1999). Complaints management has to be seen as a profit center instead of a cost center since the firm may lose customers' lifetime value when they switch to another service provider (Lovelock and Wirtz, 2007). From a strategic viewpoint, service recovery can distinguish two service perspectives (Brown *et al.*, 1996): (i) transaction-focused perspective of service recovery (Figure 1.2) and (ii) relationship-focused perspective of service recovery (Figure 1.3). Transaction-focused view is based only on repair some specific instances of a service failure in a short-term basis (Zeithaml and Bitner, 1996), while a relationship-focused standpoint is also the goal of improving service delivery system in order to avoid undesirable problems with the service and enhance long-term relationships with loyal customers (Garbarino and Johnson, 1999). These different perspectives indicate that service recovery attempts should play a role not only in creating customer satisfaction but improving service design and delivery as well (Brown *et al.*, 1996).

Figure 1.2 - Transaction-based service recovery



Source: Brown *et al.* (1996, p. 33).

Figure 1.3 - Relationship-based service recovery



Source: Brown *et al.* (1996, p. 33).

1.2.2. Behavioral outcomes and the role of service recovery paradox

Different research streams have been discussed in the literature about service recovery situations: (i) one research stream has focused its attention on what are the types of recovery strategies more effective (Harris *et al.*, 2006), also proposing which factors can mitigate negative impact on customer retention, e.g. brand equity (Brady *et al.*, 2008); (ii) another research stream has tested the effect of emotions and justice theory on satisfaction, loyalty and word-of-mouth intentions (Río-Lanza *et al.*, 2009; Lin *et al.*, 2011b; Kuo and Wu, 2012); and (iii) a third stream which has researched how service recovery attempts influence positively satisfaction, purchase intentions and word-of-mouth (Maxham, 2001).

Services marketing literature has registered a significant increase in studies related to failure-recovery situations (De Matos *et al.*, 2007). Despite this growth, there are few studies that specifically examine service recovery paradox (Smith and Bolton, 1998; Magnini *et al.*, 2007; Ok *et al.*, 2007; Michel and Meuter, 2008) and some questions remain unexplored (De Matos *et al.*, 2007). Customer loyalty is considered to be an important marketing variable for firms particularly in competitive markets (De Matos *et al.*, 2013). Effective service recovery can retain customers and increase post-recovery purchases (Wang *et al.*, 2014). Indeed, it is recognized that a customer who is dissatisfied with a service provider because of a service failure, can become a loyal customer after an effective recovery (De Matos *et al.*, 2013). It is the so-called “Service Recovery Paradox”. The SRP is defined as the observed effect associated to the

situation where dissatisfied customers are more satisfied after firm's recovery attempts than those who did not experienced any failure with the firm (Smith *et al.*, 1999). Previous studies regarding this phenomenon have shown contradictory results. Table 1.2 and Table 1.3 demonstrate the main differences between extant researches which empirically have examined SRP directly and whether it was found SRP or not. While some researchers have found SRP in their studies (Bolton and Drew, 1992; Boshoff, 1997; Smith and Bolton, 1998; Mccollough *et al.*, 2000; Maxham and Netemeyer, 2002; Hocutt *et al.*, 2006; Magnini *et al.*, 2007; Ok *et al.*, 2007; Michel and Meuter, 2008; Priluck and Lala, 2009; Schminke *et al.*, 2014), others have rejected its veracity (Halstead and Page, 1992; Brown *et al.*, 1996; Zeithaml *et al.*, 1996; Bolton, 1998; Mccollough, 2000; Andreassen, 2001; Maxham, 2001; Kau and Loh, 2006; Zhao, 2011).

Table 1.2 - Main characteristics of previous studies proving SRP

Author(s)	SRP	Context	Service perspective	Sampling dimension	Methodology	Dependent Variable
Bolton and Drew (1992)	Proved	Telecommunications	Relationship-focused	1064	Surveys	Billing, easy to do business and quality
Boshoff (1997)	Proved	Airline	Transaction-focused	540	Scenario-based experiment	Service recovery satisfaction
Smith and Bolton (1998)	Proved	Hotel and restaurant	Transaction-focused	602 and 375	Surveys	Cumulative satisfaction and repatronage intentions
Mccollough et al. (2000)	Proved	Hotel	Transaction-focused	128	Design experiment	Satisfaction
Maxham and Netemeyer (2002)	Proved	Bank	Relationship-focused	255	Longitudinal study	Satisfaction, repurchase intentions and WOM
Hocutt et al. (2006)	Proved	Restaurant	Transaction-focused	211	Design experiment	Satisfaction and negative WOM
Magnini et al. (2007)	Proved	Hotel	Transaction-focused	400	Design experiment	Satisfaction
Ok et al. (2007)	Proved	Restaurant	Transaction-focused	286	Surveys	Satisfaction
Michel and Meuter (2008)	Proved	Bank	Relationship-focused	11000	Surveys	Satisfaction
Priluck and Lala (2009)	Proved	Video store	Transaction-focused	124	Design experiment	Satisfaction and voice behaviors
Schminke et al. (2014)	Proved	Manufacturing and technology	Transaction and Relationship-focused	118 and 24,655	Design experiment and surveys	Satisfaction, perceived organizational support and organizational ethicality

Source: authors.

Table 1.3 - Main characteristics of previous studies not proving SRP

Author(s)	SRP	Context	Service perspective	Sampling dimension	Methodology	Dependent Variable
Halstead and Page (1992)	Not proved	Carpet buyers	Transaction-focused	399	Surveys	Repurchase intentions
Brown et al. (1996)	Not proved	Retail	Transaction-focused	424	Design experiment	Satisfaction, quality, future expectations and image
Zeithaml et al. (1996)	Not proved	Retail chain, automobile and life insurer	Transaction and Relationship-focused	1009-3069	Surveys	Behavioral intentions
Bolton (1998)	Not proved	Telecommunications	Relationship-focused	599	Longitudinal study	Satisfaction
Mccollough (2000)	Not proved	Airline	Transaction-focused	615	Surveys	Post-service quality, Satisfaction
Maxham (2001)	Not proved	Haircut and internet service provider	Relationship-focused	406 and 116	Design experiment and surveys	Satisfaction, purchase intent and positive WOM
Andreassen (2001)	Not proved	Different industries	Transaction and Relationship-focused	822	Surveys	Corporate image and customer intent
Kau and Loh (2006)	Not proved	Telecommunications	Relationship-focused	428	Surveys	Trust, WOM and loyalty
Zhao (2011)	Not proved	Restaurant and bank	Transaction and Relationship-focused	178	Surveys	Dissatisfaction, trust, perceived value, switching intention

Source: authors.

Some methodological characteristics of these studies may be in the origin of such conflicting results (De Matos *et al.*, 2007), such as the sample dimension, the context/sector regarding its low or high customer-staff contact and service perspective, type of participants, methodology used to collect the data and the dependent variable studied.

Service recovery must at least meet customers' service recovery expectations (Ok *et al.*, 2005) and to be more than what the firm should offer (De Matos *et al.*, 2013) in order to potentiate the SRP. Such phenomenon can potentiate firms' long-term profitability and customers' loyalty as well (Lovelock and Wirtz, 2007). Those firms' recovery attempts can strengthen customer-firm relationships (Smith *et al.*, 1999), however a huge number of customers remain dissatisfied with the way firms solve their problems (Tax and Brown, 1998). Briefly, successfully service recovery efforts could be an opportunity for firms to recover customer trust (Tax and Brown, 1998) and build long-term relationships, enhancing customer commitment (Ok *et al.*, 2005). However, on the other

side, there are loyalty customers who only stayed in a relationship with a service provider because some sort of penalty exists, i.e. switching costs (De Matos *et al.*, 2013). Effective recovery strategies are addressed in service management research (Mostafa *et al.*, 2014). Several authors identified different service recovery strategies that a firm can use (Smith *et al.*, 1999) and that are considered effective actions, such as compensation, speed of the response, apology, facilitation and follow-up (Karatepe and Ekiz, 2004; Karatepe, 2006; Gelbrich and Roschk, 2011).

Other variables may influence customers' responses and consequently SRP, such as the characteristics of service failures and customers profile. So, this study includes and analyzes some of these variables which will be presented in the next section (see Table 1.4).

1.3. The methodology of the research

There has been a call for research on repurchase behavior instead of repurchase intentions. Hence, this research discusses customer behavior through call center data analysis, using a longitudinal study. A database from a Portuguese call center from a mobile telecommunication firm, one of the major players in this market, was collected to address the research objectives. The selection of the Portuguese mobile telecommunication sector was done by convenience and also because of the aggressive competition in this sector, since an accelerated competition has been observed since 1990 (Bohlin *et al.*, 2007). Hence, call centers are widely used in this sector as a customer contact channel, where employees interact with customers without physical presence (Bitner *et al.*, 1990) and it was another reason for this choice. Such data are known as secondary. The data have already been collected for other purpose and they are considered as documentary secondary data which include written materials such as organizations' databases (Saunders *et al.*, 2009). The strategic option for secondary data was made because call centers, as crucial tools of CRM strategies (Cheong *et al.*, 2008), are great sources of customer-based information. Being the main channel for customers complaints management, in the telecommunications sector, we would not be able to get such a large amount of information collecting primary data. In this research, the main advantage of using secondary data is that a larger (Ghauri and Grønhaug, 2005; Smith, 2008) and higher-quality data set can be obtained and analyzed (Stewart and Kamins,

1993). Secondary data also provide the possibility to undertake longitudinal studies and comparative research, when the data were collected and recorded using the same methods (Smith, 2008; Vartanian, 2011). However, this type of data did not allow us to collect more than the existing data. We could not create data through the collection of secondary data. It can represent a limitation when compared to primary data, which made through observation, interviews or questionnaires, allow us to build new data.

The study focused on customers who have contacted the telecommunications firm's call center for a specific period of time. Available data for each customer in the database and their specifications are presented in Table 1.4.

Table 1.4 - Call center's database: data and their characteristics

Analysis	Definition	Measurement
Demographic factors	Customers' gender	Male or female
Demographic factors	Customers' age	Number of years
Contact purpose	Complaint or asking for information	Yes or No
Service failure context	Type of failure that occurred	Outcome or Process
	Magnitude/severity of the failure	Weak/Moderate/Severe
Relationship duration/relationship age	Number of months of the customer relationship with the service provider	Number of months
Compensation	Whether customer received a tangible compensation after the service failure	Yes or No
Speed of the response	Timeliness is considered an immediate recovery when it takes less than 5760 minutes to solve the problem, and a delayed recovery more than 5760 minutes	Immediate or Delayed
Customer business	Account status, customer keeps the service active or not	Active or deactive
Customer business	Average amount spent by the customer	Average amount spent in euros

Source: authors.

The data under analysis was collected between January 2012 and January 2013. The selected timeline was under the assumption that policies, strategies and handling customer complaints in that period of time were the same. The firm's Customer Service database included a total of 251,968 customer contacts with the call center and contains the customer information about the reasons which originated the customers contact. Therefore, this research discusses customers' post-recovery behavior through call center data analysis. Different statistic methods were used according each paper's research questions. Data were analyzed with the 21st version Statistical Package for the Social Sciences (SPSS) software.

1.4. Plan of presentation

This dissertation is the result of three papers and it is organized into five chapters. Following a general introduction addressing the main purpose and the motivation for this research in Chapter 1, our analysis is structured into three chapters (Chapters 2 to 4). Each of these chapters initiates with an introduction which includes its main motivations and contributions. Then the literature review is presented, followed by the methods applied, and the description of the data. Afterwards, we report and discuss the empirical results and the main conclusions. Finally, managerial contributions, limitations and paths for further research are also presented for each paper. Note that, in order to address the research questions, each paper was differently designed and presents different research hypotheses. As mentioned before, papers were presented and discussed in International Conferences, being at present under a review and publishing process. Though each paper discusses different questions, same theoretical topics may be repeated along them, since the three addresses the SRP thematic.

As a preview to the remainder of this dissertation, Table 1.5 displays the structure of the chapters between 2 and 4 in terms of specifications, knowledge accumulation, and the process of discussion and publication of the developed papers.

Table 1.5 - Comparison of papers

	Paper 1	Paper 2	Paper 3	All developed papers
	Chapter 2 - The service recovery paradox in a Call Center setting: compensation and timeliness in recovering mobile telecommunications customers	Chapter 3 - Who is complaining and repurchasing? The role of demographic characteristics	Chapter 4 - Does service failure severity matter? Customers' response to service recovery	Global perspective
Purpose	To test whether SRP exists in this particular sector and to analyze whether the most important elements for a successful recovery, i.e. compensation and timeliness impact on such behavior, according to the interaction of demographic factors and relationship age as moderators.	To analyze whether demographic characteristics (gender and age) have an impact on customers' complaint behavior and also on customers' responses to firm's recovery efforts, always testing when SRP is more likely to arise.	To investigate how failure context (type and severity) could influence customers' post-recovery behavior according to gender, relationship age and compensation, always testing when SRP is more likely to arise.	According to the main objective of paper 1 it was concluded that SRP exists and only timeliness, as a recovery attribute, influences repurchase behavior. Since we found no moderating effects of relationship age and demographic characteristics as well, we progressed to paper 2, where the impact of those demographic characteristics was tested on customers' complaint and repurchase behavior. Both gender and age were found to have a significant impact on customers' complaint and repurchase behavior: SRP was more likely to occur in Generation Y and male customers market segments.
Approach	Sample = 17,159 complainers and non-complainers customers, from a Portuguese mobile cellphone telecommunications firm's database.	Sample = 36,837 complainers and non-complainers customers, from a Portuguese mobile internet telecommunications firm's database.	Sample = 40,813 complainers and non-complainers customers, from a Portuguese mobile internet telecommunications firm's database.	
Hypotheses	H1: Customers who have experienced a service failure followed by a service recovery exhibit higher repurchase behavior than customers who have never experienced a service failure. H2: Compensation has a positive effect on customers' post-recovery repurchase behavior. H2a: The impact of compensation on repurchase is stronger in customers with a longer relationship with the firm. H2b: The impact of compensation on repurchase is stronger in male customers group. H2c: The impact of compensation on repurchase is stronger in older customers group. H3: Timeliness has a positive effect on customers' post-recovery repurchase behavior. H3a: The impact of timeliness on repurchase is stronger in customers with a longer relationship with the firm. H3b: The impact of timeliness on repurchase is stronger in female customers group. H3c: The impact of timeliness on repurchase is stronger in older customers group.	H1a: Complaint behavior varies by customer gender, namely female customers are more likely to complain. H1b: Complaint behavior varies by generational difference, namely Generation Y is more likely to complain. H2a: Post-recovery behavior varies by customer gender, namely female customers are more likely to experience service recovery paradox. H2b: Post-recovery behavior varies by generational difference, namely Silent Generation is more likely to experience service recovery paradox.	H1: Process failures will have a more negative influence on customers' repurchase than outcome failures. H2: The negative impact of an outcome failure on customers' repurchase will be lower than the negative impact of a process failure when compensation is offered. H3: Severe failures will have a negative influence on customers' repurchase. H4: Weak failures will have a lower negative impact on customers' repurchase when compensation is offered. H5: The negative impact of severe failures on customers' repurchase behavior will be higher for male customers. H6: The negative impact of process failures on customers' repurchase behavior will be higher for female customers. H7: The negative impact of severe failures on customers' repurchase behavior will be higher for beginner customers. H8: The negative impact of process failures on customers' repurchase behavior will be higher for beginner customers.	More variables should be tested according to the calls for research on other moderators. Hence, it was developed paper 3 which extends previous studies by investigating the relevance of failure context, i.e. failure type and failure severity in predicting customers' repurchase, testing the moderator effect of compensation, gender and relationship age between parties. SRP was found to be more likely to happen when in the case of low severe failures, a compensation was offered and when an outcome failure occur for beginner customers.
Process of double blind review, discussion and publication	Paper 1 is the result of the discussion of the preliminary paper "The Service Recovery Paradox in a Call-Center context: Compensation and Timeliness in Recovering Mobile Customers" which is published in the <i>Proceedings of the 47th Hawaii International Conference on System Sciences</i> , indexed by Scopus and after a revision, a inclusion of some insights of another paper entitled "Service recovery paradox: customers' response to compensation, speed and apology" which is published in the <i>Proceedings of the 5th International Research Symposium in Service Management (IRSSM5)</i> .	Paper 2 is the result of the discussion in the <i>5th International Research Symposium in Service Management (IRSSM5)</i> . The paper received the Young Service Researcher Award and it is published in the <i>Proceedings of the 5th International Research Symposium in Service Management (IRSSM5)</i> .	Paper 3 is a result of the discussion of the paper "The impact of service failure severity on post-recovery behavior: the moderating role of gender and relationship age" published in the <i>Proceedings of the 23rd International Business Information Management Conference (IBIMA)</i> indexed by Thomson Reuters ISI and Scopus – CD-ROM edition. ISBN 978-0-9860419-1-4. A revised version was also accepted for publication in the <i>Journal of Marketing Research and Case Studies</i> .	
Authors	Raquel Reis Soares; João F. Proença and P.K. Kannan.	Raquel Reis Soares and João F. Proença.	Raquel Reis Soares and João F. Proença.	

Source: authors.

Regarding to authors, Dr. P.K. Kannan have also collaborated in the development of the first paper. He is the Ralph J. Tyser Professor of Marketing Science at the Robert H. Smith School of Business at the University of Maryland, and the Chair of the Department of Marketing. With his expertise in the services marketing field his contributions were very relevant to the evolution of this research.

The reference list of each paper is presented in the end of the dissertation with the others references in order to ensure a better organization.

Chapter 5 presents the general results of all papers, the general academic and managerial contributions, stating their limitations and some paths for further research.

**CHAPTER 2 - THE SERVICE RECOVERY PARADOX IN
A CALL CENTER SETTING: COMPENSATION AND
TIMELINESS IN RECOVERING MOBILE
TELECOMMUNICATIONS CUSTOMERS**

2.1. Introduction¹

In the last decade, due to the increasing pressures that firms have faced regarding customer service, there has been a growing interest in issues related to service failures and their recovery, reflected in the literature. The ability of firms to organize service restoration programs has been identified as the main reason for this growth.

The service recovery paradox phenomenon (SRP hereafter) has emerged as a significant phenomenon in the marketing literature (De Matos *et al.*, 2007) because several authors believe that an outstanding customer recovery strategy could trigger such an effect (Smith *et al.*, 1999). Consequently, there may be relevant benefits which should be explored. The SRP is therefore a term that has been applied to a paradoxical and curious finding: customers who experienced service failures followed by strong recoveries may be more satisfied than those who did not experience any problem (Maxham, 2001; De Matos *et al.*, 2007).

The inseparable and intangible features which characterize the nature of services increase the inherent difficulty faced by firms in delivering a failure-free service (Kuo and Wu, 2012). Service failures (gaps between levels of perceived and expected service) are the main reason why several firms are losing current customers (Lin *et al.*, 2011a). For any firm, the costs of gaining a new customer are much higher than those for retaining old/current customers (Hart *et al.*, 1990; Tax and Brown, 1998; Homburg and Furst, 2007). Therefore, customer recovery strategies are crucial for firms' revenues and profits (Tax and Brown, 1998).

In this context, SRP appears both to academics and practitioners as a significant phenomenon, because it is seen as an opportunity to achieve higher levels of customer satisfaction through excellence in recovery after a service failure, compared with an initial situation where no failures were detected (Smith *et al.*, 1999). The majority of extant studies in this area indicate that after a considerable effort to recover, customer satisfaction is greater than it was initially (De Matos *et al.*, 2007). Although in the literature there may not be a consistent conclusion confirming the veracity of the

¹ This first paper is the result of the discussion of the preliminary paper "The Service Recovery Paradox in a Call-Center context: Compensation and Timeliness in Recovering Mobile Customers" which is published in the *Proceedings of the 47th Hawaii International Conference on System Sciences*, indexed by Scopus and another paper entitled "Service recovery paradox: customers' response to compensation, speed and apology" which is published in the *Proceedings of the 5th International Research Symposium in Service Management (IRSSM5)*.

phenomenon, the benefits in retaining customers can be greater than those in previous studies. This may occur because those customers could contribute to mitigating the costs associated with their own recovery through their life time values for the firm (Priluck and Lala, 2009).

This study aims first to confirm the existence of SRP in a mobile telecommunications context, second to investigate whether timeliness and compensation can influence customers' post-recovery behavior and third to examine the role of the relationship age and demographic factors on those relationships.

2.2. Theoretical background and hypotheses development

2.2.1. Service recovery efforts

The prominent competitiveness in the contemporary service sector has attracted increasing interest on the part of researchers and marketers in understanding how customers evaluate service experiences, particularly as regards the inherent negative consequences of critical incidents on customer complaint behavior (Tronvoll, 2007).

Not all market interactions are successful at first. The above mentioned service failures resulting from poor service experiences occur because the customers' expectations are quite often not met, which leaves them disappointed. This disconfirmation of service expectations caused by a failure results in customer dissatisfaction (Zeithaml *et al.*, 1993). Consequently, there are complaints (Schoefer and Diamantopoulos, 2009) which may be an indicator of conflicts in the customer-firm relationship (Tax and Brown, 1998).

The literature recognizes that effective complaint management offers numerous benefits to organizations (Homburg and Furst, 2007). However, many service providers neglect customer service, considering it an unnecessary cost rather than a competitive advantage (Ahmad, 2002). Although many dissatisfied consumers do not complain and just switch to a competing alternative (when available), complaints play a key role for firms. They provide real opportunities to receive feedback about their offers and to identify and retain dissatisfied consumers (Priluck and Lala, 2009). Therefore, in order to ensure high levels of customer satisfaction and loyalty, it is crucial for firms to expend efforts in a strong and effective service recovery process (Smith *et al.*, 1999).

The ability of firms to organize programs of service restoration is the main strategy for retention of customers. Moreover, it ensures their loyalty and satisfaction (Sousa and Voss, 2009).

Service recovery is defined in the literature as a process by which a firm tries to rectify a failure in the service (Maxham, 2001). It involves actions whose aim is to solve problems and to change the negative attitudes of dissatisfied customers and retain them (Miller *et al.*, 2000). In fact, it covers a broader set of activities that go beyond complaints management by focusing on customer complaints and their relevant technical origin (Smith *et al.*, 1999). Since it is unlikely completely to eliminate service failures, firms must learn effectively to respond to them when they occur. Though the potential negative impact of service failures on customer loyalty is clear, the effective application of recovery techniques can counteract this effect, helping firms to maintain or even enhance customer loyalty. It represents a second opportunity for service providers to deliver a positive experience (Miller *et al.*, 2000).

Typically, recovery strategies can embrace three distinct actions, either alone or in combination (Levesque and Mcdougall, 2000): an apology offer, or in other words, the recognition of the problem; assistance or problem resolution, and compensation, i.e. payment for damages.

Service recovery studies focus on how customers react to service providers' responses after the occurrence of problems (Ok *et al.*, 2007), because from a business perspective, with regard to customer dissatisfaction it is crucial not only to know whom to respond to and when and how to respond, but also the outcomes of the efforts made in terms of service recovery (Andreassen, 2001). Furthermore, an extraordinary recovery could lead to a paradoxical situation: a customer who experiences a failure becomes more satisfied than those who did not experience any problem. This is the so-called service recovery paradox phenomenon (Ok *et al.*, 2007).

In this context, the role of call centers deserves special attention, due to their growing importance as a component of the service provided by firms. In most cases they are the only contact interface with customers (Dean, 2007), in particular as a means for customers to submit their complaints. In fact, call centers have been defined in the literature as communication channels between firms and their customers for handling complaints and the resolution of customer issues, instead of a single unit of customer

service or sales, as was initially recognized by firms (Cheong *et al.*, 2008). Call centers allow these firms to differentiate themselves from those who are just physically available during restricted hours, representing a competitive advantage (Feinberg *et al.*, 2000).

2.2.2. The paradoxical effect and behavioral outcomes

Despite the assumed accuracy of the SRP, there are few empirical studies that explore and examine it (Maxham, 2001; De Matos *et al.*, 2007), and a gap remains in the literature due to the results of these different studies. It is suggested in the literature that high efforts for effective service recovery can produce this paradoxical effect, in which secondary satisfaction (satisfaction after the service failure occurrence and the respective recovery) exceeds a pre-failure satisfaction (Smith and Bolton, 1998; Mccollough *et al.*, 2000). Because it is a rare event, in addition to the difficulty associated with the detection of its existence (even verified) (Hart *et al.*, 1990; Boshoff, 1997; Michel and Meuter, 2008), its measurement is also costly (Michel and Meuter, 2008) and the results are contradictory, both in terms of its existence and of the strength of its effects (De Matos *et al.*, 2007; Priluck and Lala, 2009).

In this sense, there are two schools of thought in the literature (see Appendix): one that presents results that support the peculiar effect and considers it real and which finds positive effects of the service recovery in the satisfaction (Boshoff, 1997; Smith and Bolton, 1998; Tax and Brown, 1998; Michel, 2001; Maxham and Netemeyer, 2002; Hocutt *et al.*, 2006; Magnini *et al.*, 2007; Michel and Meuter, 2008; Priluck and Lala, 2009; Schminke *et al.*, 2014), and the other view that fails to find support for the so-called effect (Bolton, 1998; Mccollough *et al.*, 2000; Andreassen, 2001; Maxham, 2001; Shapiro *et al.*, 2006; Zhao, 2011).

All recovery strategies influence customers' post-recovery behavior in a new consumption situation (Kim *et al.*, 2010). Therefore, some of the behavioral outcomes can be positives (e.g. positive word-of-mouth, post-purchase intention and repurchase), or negatives (negative word-of-mouth, complaint to a third party and switching behavior). Countering customers' negative evaluations of a firm's performance in service delivery is not much of an option, as firms need to ensure they are building long

term relationships with existing customers, regardless of the possibility of achieving this paradoxical effect (Ok *et al.*, 2007).

In this study, repurchase behavior was used as proxy for SRP. This construct has been explored in the literature (Seiders *et al.*, 2005), albeit not very thoroughly, given the difficulties associated with assessing future customer behavior and because behavioral intention does not always match behavior. Thus, more research on this has been called for (Chang and Polonsky, 2012). Regarding the dependent variable, the repurchase construct has been measured in the literature according to the repeated visits to a service and/or by increasing the amount spent on a service (Seiders *et al.*, 2005). In this research, repurchase was measured by the average amount spent on the service, after the failure. The first hypothesis is presented in order to verify whether the SRP exists, i.e. the main effect:

H1: Customers who have experienced a service failure followed by a service recovery exhibit higher repurchase behavior than customers who have never experienced a service failure.

2.2.3. The customers' fairness perception

It is important here to introduce the justice concept, because fairness principles have also been applied in this context, i.e. in buyer-seller transactions (Oliver and Swan, 1989). This is a relevant concept in any domain where an exchange takes place, especially in a complaint behavior scenario, since customers frequently perceive an inequity (Maxham, 2001) after a service failure. Although customers want to be treated fairly, the literature recognizes the difficulty of delivering fairness, since customers' perception of this may vary among them (Mattila and Mount, 2003). So the perception of fairness in a service recovery context can be seen as a moderator which is evaluated by customers according to three independent factors (Blodgett *et al.*, 1997; Tax *et al.*, 1998; Smith *et al.*, 1999): outcome, procedural fairness and interaction treatment. The three factors are related to distributive, procedural and interactional justice, respectively. Both tangible compensation (what was done) and process (how it was done) are assumed in the literature as crucial elements for a successful service recovery (Tax *et*

al., 1998; Mcdougall and Levesque, 1999; Smith *et al.*, 1999). These two components of the equity concept are particularly important for this study, and both were considered. The type of compensation (tangible or not) and the process (time spent in failure resolution) were examined.

Distributive justice is a concept related to the perceived fairness of the tangible outcome in order to compensate and rectify a service failure (e.g. discounts for future purchases and payment reimbursements) (Blodgett *et al.*, 1997). Compensation or redress is the most researched variable of the complaint handling process (Davidow, 2003). Tax *et al.* (1998) argued that distributive justice must be operationalized in more general terms, since each customer evaluates compensation fairness in their own way according to three factors: prior relationship with the firm, awareness of other customers' resolutions and perceptions regarding their own loss. Several marketing studies indicate that equity evaluations influence customer satisfaction and repurchase intentions positively (Oliver and Swan, 1989), and compensation is habitually incorporated in the complaint handling process according to the perceived costs experienced by the customer (Kelley *et al.*, 1993). There is a consensus in the literature relating to the positive effect of compensation in post-recovery behaviors (Hoffman *et al.*, 1995; Mccollough, 2000; Sparks and Mccoll, 2001; Davidow, 2003). However, more evidence is needed and some authors call for research on this topic (Davidow, 2003; Mattila, 2010). Apologies and compensations are the most common actions used by firms as recovery strategies (Mcdougall and Levesque, 1999), and both are important to customer satisfaction (Tax *et al.*, 1998). An apology is considered the minimum that a firm can offer to a customer after a failure (Mcdougall and Levesque, 1999). It can be seen as psychological compensation (Davidow, 2000). Hence, in this study tangible compensation for distributive justice was applied, i.e. customers who did not receive tangible compensation (e.g. loyalty program points; better rate plans; mobile phones; other offers such as free minutes) were distinguished from those who did.

Procedural justice reflects the perceived fairness of the means (policies, procedures and criteria) by which decisions are made and problems solved (e.g. timing/speed) (Blodgett *et al.*, 1997; Tax *et al.*, 1998; Smith *et al.*, 1999; Mccollough *et al.*, 2000; Río-Lanza *et al.*, 2009). According to Davidow (2003), timeliness is considered as the speed with which a firm responds to a complaint. The delays in the customer complaints and

recovery context also stand out for their relevance (Hart *et al.*, 1990; Boshoff, 1997), especially because a negative relationship was found between delay and customer satisfaction (Conlon and Murray, 1996; Boshoff, 1997). A firm benefits when presenting readiness in response to complaints (Conlon and Murray, 1996), and this is one of the key customer perceptions as regards procedural justice (Blodgett *et al.*, 1997; Tax *et al.*, 1998). Some of the few studies in the literature have presented a positive influence of timeliness on post-complaint customer behavior (Bitner *et al.*, 1990; Hoffman *et al.*, 1995; Smith *et al.*, 1999; Durvasula *et al.*, 2000). According to those results, in our research it is expected that timeliness will have a positive relationship with repurchase behavior. The literature has often studied the role of time and flexibility in the complaints management process to measure procedural justice (Blodgett *et al.*, 1997; Tax *et al.*, 1998). Thus, this research considered the amount of time, measured in minutes, which the service provider took to handle the customer complaint. According to the discussion above, we expect the following main effects:

H2: Compensation has a positive effect on customers' post-recovery repurchase behavior.

H3: Timeliness has a positive effect on customers' post-recovery repurchase behavior.

2.2.4. The role of the relationship age between customer-firm relationship and demographic factors

Justice dimensions may depend on the customers' relationship with a specific firm (Smith *et al.*, 1999). Seiders *et al.* (2005) stated that relational characteristics are formal and informal bonds between firms and customers which can represent switching barriers and competitive advantages to firms. So, relationship age is a relational characteristic which stands for customers' investments in building relationship with a specific firm. In a context of contractual services, relationship age assumed a moderating role between satisfaction and repurchase behavior. Seiders *et al.* (2005) also argued that relationship age is positively related to customers' repurchase behavior. Customers' perceived level of equity following a service failure will increase as the relationship age with the firm

increases (Palmer *et al.*, 2000). Then, we expect that relationship age will influence the way customers respond to service attributes and customers with a longer relationship with the service provider would be more willing to repurchase. This expectation is reflected in the following hypotheses:

H2a: The impact of compensation on repurchase is stronger in customers with a longer relationship with the firm.

H3a: The impact of timeliness on repurchase is stronger in customers with a longer relationship with the firm.

The moderating role of the demographic factors was also investigated in influencing customers' behavior outcome. Although customers' recovery studies focusing on gender analysis are scarce, prior research showed that this demographic factor influences customers' reactions (Volkov *et al.*, 2005; Mattila, 2010; Cambra-Fierro *et al.*, 2013). Therefore, it is an important segmentation variable (Mattila, 2010), which should not be ignored (Boshoff, 2012). Though the findings of the extant literature are inconclusive, either gender (whether one is male or female) might influence customers' behavioral outcome after the service recovery (Kim *et al.*, 2010). We further argue that gender moderates the positive impact of compensations on customers' post-recovery behaviors. In a recovery context, in spite of the paucity of research on this topic, Mccoll-Kennedy *et al.* (2003) demonstrated that male customers are more interested in what they effectively receive, or in other words, in the outcome. On the other hand, although female customers want a satisfactory outcome, they are more concerned about the process-based aspects, i.e. in how they are treated by the firm (Mccoll-Kennedy *et al.*, 2003; Gruber *et al.*, 2009). Hence, we expect that men will focus more on the tangible outcome, and then experience SRP more than women. Regarding procedural justice, it is suggested that women have higher service recovery expectations than men (Hess *et al.*, 2003). In addition, procedural justice is more important for women, since they like to participate in decision making (Mccoll-Kennedy *et al.*, 2003). In fact, women focus more on the process than men (Iacobucci and Ostrom, 1993; Mattila and Mount, 2003). Hence, the following hypotheses are proposed:

H2b: The impact of compensation on repurchase is stronger in male customers group.

H3b: The impact of timeliness on repurchase is stronger in female customers group.

Concerning age, and when compared with older customers, younger customers are more willing to switch service providers if not satisfied and less likely to be loyal to firms (Patterson *et al.*, 2006; Yoon *et al.*, 2009). In fact, young customers are more likely to shop around and be more risky in their purchase behavior compared with older customers (Sharma *et al.*, 2012). In this regard, we expect that repurchase behavior will vary by customers' gender and age characteristics. Therefore, we put forth the following hypotheses:

H2c: The impact of compensation on repurchase is stronger in older customers group.

H3c: The impact of timeliness on repurchase is stronger in older customers group.

2.3. Method

A firm's database in the context of the mobile phone service was selected to test the hypotheses. Literature regarding inconclusive results in relation to the SRP effect formed the basis of this research. As an extensive database was required for the study, data collection was undertaken, for convenience, in one of the biggest firms in the Portuguese mobile telecommunications sector. Moreover, in this sector, customer service is mainly provided through call centers. Thus, the database presents the historical behavioral interactions between customers and firm over a long period of time, i.e. from January 2012 to January 2013. We considered a sample of 17,159 customers from the firm database who contacted the call center by telephone. For each customer the database contains demographic information, the amount spent per month on the service and information about what led to the customer call. It also includes those who experienced a failure with the firm and those who had no problems - control group – and information about the attempts of the call center to answer customers' complaints or requests, in a given period of time. Complaints were analyzed along with the efforts

of the firm to recover from these service failures. The reasons that motivated customers' complaints are diverse: disagreement with the amount charged; dissatisfaction with bad service; late delivery of equipment; delay in service activation; disagreement with the loyalty program, etc. The timeline was selected under the assumption that policies, strategies and handling of customer complaints did not change in that period of time. An exploratory interview to a call center manager was done in order to identify the appropriated groups to manipulate for some of the variables. Relationship age with the service considered that the service contract length is usually 24 months. Timeliness is considered an immediate recovery when it takes less than 5760 minutes to solve the problem, and a delayed recovery more than 5760 minutes. In order to measure the impact of the independent variables on repurchase behavior customers were divided into groups: compensation (with; without); timeliness (immediate; delayed). Compensations offered by the firm vary according to the complaint presented, such as extra points offered in the loyalty program; invoice discounts; free equipment replacement, etc. Briefly, the demographic characteristics of the sample were as follows (Table 2.1): the gender split was 59% male and 41% female; the majority of customers, i.e. 43%, were in the age group of 45 years and older.

Table 2.1 - Customers' profile

	Group	Percentage
Gender	Male	59.0
	Female	41.0
	Total	100.0
Age	18-24	1.5
	25-34	21.6
	35-44	33.9
	>45	43.0
	Total	100.0

Source: authors.

This research differs from prior ones in some aspects which we believe to contribute for the validity of results and to overcome some of the recognized limitations identified in the previous studies: (i) a real database was used; (ii) a questionnaire for data collection was not carried out; (iii) recovery paradox was measured by the less used dependent variable in the literature; (iv) customers who did not experience a service failure were also included in the analysis in order to compare this control group with the treatment group (who had experienced a problem with the firm).

2.4. Results

In order to determine whether SRP exists, customers were divided into two separate groups: who did not have problems ($n = 9.022$) and who had problems ($n = 8.137$). So, to test whether this phenomenon in fact occurs, repurchase among both groups of customers was analyzed and it was evaluated through Wilcoxon-Mann-Whitney non-parametric test. We confirmed that the number of those who had problems presented higher repurchase scores than those who had no problems with the firm and those observed differences were statistically significant ($U = 35841138$; $W = 68950591$; $p = 0.005$). In fact, the number of those who had problems and repurchased ($M = 0.49$; $p = 0.005$) was higher than those who had no problems and repurchased ($M = 0.31$; $p = 0.005$). Therefore, hypothesis 1 is supported.

ANOVA was used to test the influence of compensation and timeliness in repurchase and the role of the relationship age and demographic factors in this relationship. Compensation ($F = 86.659$, $p = 0.000$), timeliness ($F = 8.959$, $p = 0.003$), age ($F = 3.540$, $p = 0.014$) and relationship age ($F = 68.270$, $p = 0.000$) had a significant effect on repurchase. However, gender did not show such a significant impact on repurchase ($F = 0.080$, $p = 0.777$).

For compensation, the average of amount spent in the service for customers who did not receive compensation was 0.92, which was higher than the number of those who were compensated, at -9.26 (see Table 2.2). Compensated customers were more likely not to repurchase, so the findings do not support hypothesis 2. For timeliness, the average of repurchase for customers who experienced an immediate recovery was 0.75, which was higher than the number for the delayed group, at -6.14 (see Table 2.2). Therefore, the findings support hypothesis 3.

Table 2.2 - Table of means

	Repurchase Mean (S.D.)	
Compensation	With	-9.26 (23.63)
	Without	0.92 (36.58)
Timeliness	Immediate	0.75 (36.21)
	Delayed	-6.14 (35.20)

Source: authors.

None of the moderators proposed have shown an interaction with the above relationships, denying the moderate effect suggested. Relationship age showed no interaction effects between compensation and repurchase ($F = 0.957$, $p = 0.328$) neither between timeliness and repurchase ($F = 0.026$, $p = 0.873$). Age was also not a moderator variable of the relation between compensation and repurchase ($F = 0.474$, $p = 0.700$) nor between timeliness and repurchase ($F = 1.002$, $p = 0.391$). At last, gender showed similar results and no moderator effect between the independent variables and repurchase were found (compensation: $F = 0.068$, $p = 0.795$; timeliness: $F = 0.272$, $p = 0.602$). Results of the simple main-effect tests were also presented. It is showed (see Table 2.3 and Table 2.4) that compensated customers: (i) did not repurchase even if they had a longer relationship or a shorter relationship with the firm and the impact is more positive for the shorter relationship group ($M_{\text{longer}} = -10.17$, $M_{\text{shorter}} = -2.81$; $F = 72.54$, $p = 0.000$); (ii) repurchased only when they belonged to younger customers group ($M_{\text{younger}} = 4.00$, $M_{\text{older}} = -9.62$; $F = 33.66$, $p = 0.000$). These results did not support hypotheses 2a, 2b and 2c. Besides, as shown in Table 2.5 and 2.6, customers who experienced an immediate resolution of the problem: (i) repurchased only when they had a shorter relationship with the firm and there was found a positive impact for this customers group ($M_{\text{shorter}} = 5.19$, $M_{\text{longer}} = -0.44$; $F = 71.66$, $p = 0.000$); (ii) did not repurchase even if they were in the younger or older group, however the impact is more favorable for the older group ($M_{\text{younger}} = -2.67$, $M_{\text{older}} = -0.03$; $F = 6.19$, $p = 0.000$). These results did not support hypotheses between 3a, 3b and 3c.

Table 2.3 - Simple main effect test: Relationship age

Source	F	p
Relationship age WITHIN without compensation	62.97	0.000***
Relationship age WITHIN with compensation	72.54	0.000***

Note: ***p<0.01.

Source: authors.

Table 2.4 - Simple main effect test: Age

Source	F	p
Age WITHIN without compensation	4.57	0.003***
Age WITHIN with compensation	33.66	0.000***

Note: ***p<0.01.

Source: authors.

Table 2.5 - Simple main effect test: Relationship age

Source	F	p
Relationship age WITHIN immediate resolution	71.66	0.000***
Relationship age WITHIN delayed resolution	15.48	0.000***

Note: ***p<0.01.

Source: authors.

Table 2.6 - Simple main effect test: Age

Source	F	p
Age WITHIN immediate resolution	6.19	0.000***
Age WITHIN delayed resolution	5.00	0.002***

Note: ***p<0.01.

Source: authors.

In summary, nine hypotheses in total were tested and the results are summarized in Table 2.7.

Table 2.7 - Hypotheses validation

H1: Customers who have experienced a service failure followed by a service recovery exhibit higher repurchase behavior than customers who have never experienced a service failure.	Supported
H2: Compensation has a positive effect on customers' post-recovery repurchase behavior.	Not Supported
H2a: The impact of compensation on repurchase is stronger in customers with a longer relationship with the firm.	Not Supported
H2b: The impact of compensation on repurchase is stronger in male customers group.	Not Supported
H2c: The impact of compensation on repurchase is stronger in older customers group.	Not Supported
H3: Timeliness has a positive effect on customers' post-recovery repurchase behavior.	Supported
H3a: The impact of timeliness on repurchase is stronger in customers with a longer relationship with the firm.	Not Supported
H3b: The impact of timeliness on repurchase is stronger in female customers group.	Not Supported
H3c: The impact of timeliness on repurchase is stronger in older customers group.	Not Supported

Source: authors.

2.5. Discussion and conclusions

Since firms tend to invest more and more in retaining customers, service recovery has become a meaningful competitive strategy. It is recognized that call centers are an easy and effective channel for customer complaints in the telecommunications sector. Besides, in a highly competitive environment, the manner in which the firm handles the problem which has occurred can be as critical as the outcome.

Our research evaluates SRP directly and offers some insight into important aspects of the service recovery process. Therefore, the analysis supports the SRP phenomenon in the Portuguese mobile telecommunications context, which is similar to the results of Bolton and Drew (1992) and conversely refutes the results presented by Bolton (1998) and Kau and Loh (2006). It is obvious that service failures are inevitable in a service scenario, and it is normal for firms to fail to deliver an expected service. Yet customers lose confidence in the firm when they experience many failures and they become likely to switch to other service providers. This being the case, firms should compensate them fairly for their loss and operate an effective complaint management system, with a quick response, as our research has proved.

At the same time, our findings showed that timeliness is a critical component for successful complaint handling, and consequently influence post-recovery repurchase behavior, which is in line with previous studies (e.g.(Mattila and Mount, 2003)). It is imperative that a firm provides fair outcomes. Therefore, firms must recognize the full costs that the customer incurs as a result of service failure and during the complaint process (Tax *et al.*, 1998). In fact, those who have the problem quickly resolved are more likely to stay with the firm and to experience SRP.

Although both relationship age and demographic factors were found to have a significant direct impact on repurchase, there was no moderating effect between both recovery attributes and repurchase. Relationship age, gender and age differences, concerning which the literature is limited (e.g.(Cambra-Fierro *et al.*, 2013)), were not supported in this study. No differences were found between customers with a longer relationship with the firm and those with a shorter one, male and female customers, and older and younger customers for the aforementioned relationship. This may be due to the specific characteristics of the mobile telecommunications sector and to customers' consumption standards. Being a service used daily, the occurrence of a failure or problem may cause significant inconvenience to customers. Thus, male and female customers must be compensated by means of a tangible offer, which should be fair from the customers' point of view.

As stated before and according to the literature, e.g. Lee *et al.* (2013)), situational factors (e.g. cultural nuances) may be critical in determining customers' behavior outcomes. Therefore, findings on key recovery strategies could not be generalized.

Our study highlights relevant implications for managers. The findings presented suggest that from a managerial point of view it is relevant for firms to invest in service recovery, especially in immediate resolutions, since these influence positively customers' repurchase behavior. So, firms should have an effective complaint service management to address the need for an immediate response to a complaint. Employees and call centers could play an important role in here. The faster the response to customers' complaints is the more positive repurchase behavior will be. On the other hand, compensations do not show the positive effect it was expected on repurchase which is not consistent with previous studies (Hoffman *et al.*, 1995; Davidow, 2003). A possible explanation for this finding is that compensations are not adjusted to the type of failure and/or to the specific customer. A good segmentation could not be performed in this case. Since SRP can be an opportunity for firms to retain customers (Hart *et al.*, 1990), there is potential relevance in that the knowledge about customer reactions to the service recovery strategies can enhance better management strategies (Lin *et al.*, 2011a). Firms should reevaluate the fairness of existing processes and outcomes, which will allow managers to establish a better fit between a service failure and a recovery strategy, as they have a number of options of fair complaint-handling procedures available (Tax *et al.*, 1998). In the industry object of study, exit barriers and the costs associated to change of service providers are present and these aspects may influence the customers' responses to recovery. Unless they do not mind to pay penalties, beginner customers must fulfill the contract, so that they will only leave the relationship after 24 months. In this sense, managers should understand these possible effects and adjust recovery attributes accordingly.

To sum up, the present study essentially aims to make an essential contribution to the SRP research topic, contributing to a widespread agreement on literature in terms of SRP existence. Furthermore, understanding the SRP effect will be useful for managers in that they can exercise more control over failures and adopt better-adjusted recovery strategies. In fact, in a competitive sector such as telecommunications, where customers easily switch to competitors, managers should be aware that transforming a dissatisfied customer into a satisfied one can improve his/her repurchase behavior, which can increase the amount spent, the sale of new and more expensive equipment, and the subscription to more services available in the firm. As a result, firms' profits will

increase. This is in line with what is recognized in the literature: retaining existing customers is not as expensive as acquiring new ones (Homburg and Furst, 2007). Similarly, this will enable employees to learn more about how to deliver service recovery in an efficient way.

2.6. Limitations and future research

The research has some limitations which, of course, propose directions for future research. Common sense suggests that call centers are a central key in retaining customers. Consequently, more research is needed to help firms in complaint management. It is also essential to bear in mind that this research examines the existence of SRP through customer complaint handling practices in a call center setting, which can be shown both as a strength and a limitation, since real data were tested, i.e. the effective customers' behavior, and customer perceptions were not directly assessed. The database dimension also works as a strength of this study. However, it deals with secondary data, lacking important information that other researchers can follow.

In spite of the exit barriers, such as the contractual nature of the relation between both parties, the network effect (by which the service value increases as customers' families and friends subscribe to it) and the service competitive prices and other switching costs (e.g. equipment), the competitiveness of the sector allows customers to switch between competitors easily. Nevertheless, the average amount spent, as a repurchase measure, is still one of the least tested variables. We hope to fill this gap. Besides, it will be pertinent to measure repurchase behavior through other measures (e.g. account status). Furthermore, this research has only explored and tested the identified independent variables as influencers of the SRP effect. It would be useful to test others, such as the complaint and failure types and their severity. Analyzing whether customers faced constraints in terms of remaining with the service, which may have prevented them from abandoning it, would be also worthy to study. So, it would be worthwhile to study the effects of service failures with and without financial costs for customers and explore the role of compensation in these two service recovery scenarios, since compensation may not be enough in such situations (Davidow, 2003).

We do not test the two-way interaction between distributive and procedural justice on behavioral responses, though further research should investigate it since some

researchers argued that service recovery attributes cannot be studied in isolation (Wirtz and Mattila, 2004). We also have only considered two types of service recovery attributes. Future work can be conducted on other attributes, i.e. other measurement scales of distributive (e.g. different offers as compensations given to customers) and procedural justice (e.g. facilitation), introducing the analysis of interactional justice. Moreover, gender and age differences should be investigated, since findings on this topic are not entirely consistent in the literature. In fact, we did not find moderating effects of gender and age in the studied relationships. Thus, to compare post-recovery behavior between Generation Y and other aging groups is worthwhile. Along with the replication of this study among different cultures (Portuguese customers may have specific and different consumption patterns). Research should also analyze it in contexts which do not have contractual relations as a premise. If our findings are context-specific, then future investigation should seek to analyze different settings.

Appendix - Methodological characteristics of SRP previous studies ²

Author(s)	SRP	Context	Sampling dimension	Methodology
Bolton and Drew (1992)	Proved	Telecommunications	1064	Surveys
Boshoff (1997)	Proved	Airline	540	Scenario-based experiment
Smith and Bolton (1998)	Proved	Hotel and restaurant	602 and 375	Surveys
Mccollough <i>et al.</i> (2000)	Proved	Hotel	128	Design experiment
Maxham and Netemeyer (2002)	Proved	Bank	255	Longitudinal study
Hocutt <i>et al.</i> (2006)	Proved	Restaurant	211	Design experiment
Magnini <i>et al.</i> (2007)	Proved	Hotel	400	Design experiment
Ok <i>et al.</i> (2007)	Proved	Restaurant	286	Surveys
Michel and Meuter (2008)	Proved	Bank	11000	Surveys
Priluck and Lala (2009)	Proved	Video store	124	Design experiment
Schminke <i>et al.</i> (2014)	Proved	Manufacturing and technology	118 and 24,655	Design experiment and surveys
Halstead and Page (1992)	Not proved	Carpet buyers	399	Surveys
Brown <i>et al.</i> (1996)	Not proved	Retail	424	Design experiment
Zeithaml <i>et al.</i> (1996)	Not proved	Four different industries	1009-3069	Surveys
Bolton (1998)	Not proved	Telecommunications	599	Longitudinal study
Mccollough (2000)	Not proved	Airline	615	Surveys
Maxham (2001)	Not proved	Haircut and internet service provider	406 and 116	Design experiment and surveys
Andreassen (2001)	Not proved	Different industries	822	Surveys
Kau and Loh (2006)	Not proved	Telecommunications	428	Surveys
Zhao (2011)	Not proved	Restaurant and bank	178	Surveys

Source: authors.

² This table is a summary of the Table 1.2 and Table 1.3 presented in the Chapter1. It is integrated in the preliminary paper "The Service Recovery Paradox in a Call-Center context: Compensation and Timeliness in Recovering Mobile Customers" which is published in the *Proceedings of the 47th Hawaii International Conference on System Sciences*, indexed by Scopus.

**CHAPTER 3 - WHO IS COMPLAINING AND
REPURCHASING? THE ROLE OF DEMOGRAPHIC
CHARACTERISTICS**

3.1. Introduction³

Not all market interactions are successful at first. Services often fail to satisfy customers and to meet their needs. After a failure, firms have the opportunity to eliminate customers' perception of unfairness, through recovery efforts. Service recovery has become a key focus in services marketing literature (Hoffman *et al.*, 1995; Miller *et al.*, 2000), notably because an effective recovery could lead to a paradoxical situation: the service recovery paradox (SRP hereafter), i.e. a customer who experiences a failure may become more satisfied than those who did not experience any problem (Ok *et al.*, 2007). Despite the recognized importance of this phenomenon for academics and practitioners, and the opportunity it offers to achieve higher levels of customers' satisfaction and loyalty, there are few theoretical and empirical studies on it (Maxham, 2001).

Given the high costs of acquiring new customers when comparing to the situation of retaining the existing ones, it is increasingly important for firms to understand customer complaint behavior in telecommunication sector and the effect of customer's demographic characteristics (age and gender) in such behavior. Some authors believe that customers' demographic characteristics may influence their predisposition to complain (Kau *et al.*, 1995; Heung and Lam, 2003) and their reactions to service failure and recovery (Mittal and Kamakura, 2001; Sharma *et al.*, 2012). In this regard, different levels of satisfaction with a standard recovery process may arise due to different categories of customers (Palmer *et al.*, 2000). General customers' demographic characteristics are much easier to assess by employees (Palmer *et al.*, 2000) since customers' profile is available in the firm's database. The same is not true for example when assessing by personality characteristics since these are not observable. Differences in complaint behavior and consequently in post-recovery behavior should be explored regarding these observable variables as this may provide additional information for developing an adjustable and suitable recovery strategy to customers' needs and expectations.

Therefore, this research seeks to examine the impact of customers' demographic characteristics on costumers' complaint behavior and post-recovery responses. It adds significant value due to the recognized lack of evidence on it.

³ This second paper is the result of the discussion in the *5th International Research Symposium in Service Management (IRSSM5)* by which the researcher received the Young Service Researcher Award, and it is published in the *Proceedings of the IRSSM5*.

3.2. Theoretical background and hypotheses development

The prominent competitiveness in the contemporary services sector brought to academics and practitioners interest in a better understanding on how customers evaluate their experience within the service (Tronvoll, 2007). They have focused on studies of customer complaint behavior (Heung and Lam, 2003) as well as customer responses to recovery efforts (Palmer *et al.*, 2000). Although both are based on service encounter failures (Michel and Meuter, 2008), complaint management differs from service recovery once it is based in the firm's ability to only react immediately after a customer complains (Miller *et al.*, 2000).

Demographic characteristics are often key to customers profiling (Homburg and Giering, 2001; Mittal and Kamakura, 2001). Although recent research has abandoned demographic factors and focused attention on psychological aspects, there is no doubt that these factors are, for practitioners, much easier to collect and to handle than psychological ones (Homburg and Giering, 2001).

Age was divided using generations categorization since digital generation or Generation Y is unanimously considered as a priority market segment that should not be ignored (Adner and Kapoor, 2010). Generation Y is defined as digital natives rather than digital immigrants (Prensky, 2001). Although widespread agreement on the categorization of digital generation does not exist in the literature, Bolton *et al.* (2013) proposed the following birth dates for each group: Silent Generation (1925-1945); Baby Boomers (1946-1960); Generation X (1961-1981) and Generation Y (born after 1981). So, in this study we targeted Generation Y customers who were born between 1981 and 1994.

3.2.1. Complaint behavior and demographic characteristics

The customer complaint behavior was conceptualized in the literature by Singh (1988) as a set of behavioral or non-behavioral responses, most of which comes from a perceived dissatisfaction with a purchase situation. The same author presented the taxonomy of possible customer answers to dissatisfaction: (i) voice response (wait for recovery and not acting), (ii) private responses (word-of-mouth communication); (iii) responses of others (legal actions). Blodgett and Granbois (1992) argued that, contrasting with other models like the one presented by Singh (1988), the customer

complaint behavior is a phenomenon with dynamic characteristics. For these academics it is imperative to face this concept as a process and also to take into account what is the level of satisfaction/dissatisfaction of the complainers with the service provider's responses after the complaint. The effective handling of complaints can lead to purchase repetition, to a more positive word-of-mouth and to a brand loyalty increase (Gilly and Gelb, 1982). So, an effective complaint management system is critically important for firms and offers numerous benefits (Homburg and Furst, 2007). Otherwise, if customer complaints are not handled appropriately, bad consequences may arise (Heung and Lam, 2003). However, many firms consider customer service as an unnecessary cost rather than a second opportunity (Ahmad, 2002).

Given the huge costs of losing a customer it becomes crucial for service providers to understand customer complaint behavior, namely the relationship between such complaint behavior and customer demographic characteristics (Heung and Lam, 2003). Hence, literature recognizes that gender and age are important demographic factors which affect the tendency to complaint (Fails and Francis, 1996; Volkov *et al.*, 2005). Concerning gender, some studies argued that female customers are more likely to complain (Kau *et al.*, 1995; Heung and Lam, 2003). However, there is no consensus about this demographic factor since other researchers found that male customers complain more (Manickas and Shea, 1997). According to Fails and Francis (1996) when age increases customers are less likely to complain. This can be associated with the fact that they are more accepting and not as quick to be dissatisfied and, consequently, to complain. So, some researchers pointed out that young customers complain more (Warland *et al.*, 1975; Day *et al.*, 1981; Heung and Lam, 2003) while others found that complainers are much more likely to be older (Volkov *et al.*, 2005).

Following the above discussion, the hypotheses are therefore proposed:

H1a: Complaint behavior varies by customer gender, namely female customers are more likely to complain.

H1b: Complaint behavior varies by generational difference, namely Generation Y customers is more likely to complain.

3.2.2. Post-recovery responses and the Service Recovery Paradox phenomenon

Service failures can lead to negative disconfirmation and dissatisfaction (Bitner *et al.*, 1990). However, it is possible for service providers try to eliminate the customers' perception of unfairness by compensating them (Hart *et al.*, 1990). Firms have the opportunity to react properly, implementing service recovery strategies and, consequently, retaining profitable customers (Michel and Meuter, 2008).

Some researchers have pointed out that the best strategy is to offer free-error service but it is practically impossible to eliminate all failures (Michel and Meuter, 2008). A service failure is referred to the real or perceived service-related problems that occur during a customer's experience with a service provider (Maxham, 2001). Accordingly, service recovery can include service providers' reactive and proactive efforts in order to repair the problem and transform angry customers into satisfied ones (Michel, 2001). These recovery strategies influence customers' post-recovery behavior in a positive (e.g. positive word-of-mouth and repurchase) (Oliver and Swan, 1989; Hart *et al.*, 1990; Zeithaml *et al.*, 1996; Smith *et al.*, 1999; Maxham, 2001; Kim *et al.*, 2010) or negative way (negative word-of-mouth and switch service provider) (Keaveney, 1995; Kim *et al.*, 2010). Hence, an exceptional service recovery can produce a SRP, i.e. a situation where customers who received good or excellent recoveries are more satisfied than those who have experienced no problem (Smith and Bolton, 1998; Mattila, 1999; Maxham and Netemeyer, 2002). Only a few studies investigated SRP due to its difficult measurement (Michel and Meuter, 2008). The evidence of its existence is contradictory: some refute the existence of such phenomenon (Halstead and Page, 1992; Bolton, 1998; Andreassen, 2001) while others believe that SRP is a real phenomenon (Boshoff, 1997; Mccollough, 2000; Magnini *et al.*, 2007; Soares *et al.*, 2014).

3.2.3. Post-recovery responses and demographic characteristics

Few studies on the customers' perceptions about service providers' recovery processes focus on demographic characteristics, but the existing ones identified some differences. Regarding gender, prior research suggests that, in a failure situation, female customers focus more on procedural justice, i.e. intangible aspects, and the male counterparts

pursue distributive justice, or in other words, tangible aspect of equity, e.g. rewards (Palmer *et al.*, 2000; Mccoll-Kennedy *et al.*, 2003). Other studies confirmed that while males are characterized by being more objective oriented, females are more socially oriented (Iacobucci and Ostrom, 1993; Cambra-Fierro *et al.*, 2013). It seems that females are more likely to be more loyal than males (Iacobucci and Ostrom, 1993; Homburg and Giering, 2001; Mittal and Kamakura, 2001). Concerning age, and when compared with older customers, younger customers are more willing to switch service providers if not satisfied and less likely to be loyal to firms (Patterson *et al.*, 2006; Yoon *et al.*, 2009). In fact, young customers are more likely to shop around and be more risky in their purchase behavior compared with older customers (Sharma *et al.*, 2012). In this regard, we expect that repurchase behavior will vary by customers' gender and age characteristics. This expectation is reflected in the following hypotheses:

H2a: Post-recovery behavior varies by customer gender, namely female customers are more likely to experience SRP.

H2b: Post-recovery behavior varies by generational difference, namely Silent Generation is more likely to experience SRP.

3.3. Method

To test the hypotheses, a Portuguese call center database in the telecommunications industry was selected. We considered a sample of 36,837 those who experienced a service failure and those who did not experience any problem, who contacted the firm's call center. The database includes information about (i) demographic characteristics of each customer; (ii) the reason for the customer contact; (iii) the failure occurred; (iv) and the call center handlings to answer to customers' contact.

The profile of the customers is shown in Table 3.1, which indicates that 42.5% of customers were males and 57.5% females. Most of the customers were in the age group of Generation X (54.0%) followed by the Generation Y group (30.8%).

As Mccollough *et al.* (2000) suggested in their study, this research directly compared the no-failure state as a control group with recovery situation in order to test the SRP, since prior research tested this phenomenon mostly indirectly.

Table 3.1 - Customers' profile

	Group	Percentage
Gender	Male	42.5
	Female	57.5
	Total	100.0
Age	Gen Y(20-33 years)	30.8
	Gen X (34-53 years)	54.0
	Baby Boomers (54-68 years)	13.2
	Silent Gen (69-89 years)	2.0
	Total	100.0

Source: authors.

Moreover, in this research we used repurchase behavior because repurchase intention does not allow firms to predict the precise repurchase behavior (Mittal and Kamakura, 2001). The actual repurchase behavior is considered in the literature as repeated visits to the service provider and/or the increased amount spent in the service (Seiders *et al.*, 2005). There are few studies which applied repurchase behavior, since it is easier to collect repurchase intention data (Bolton, 1998; Mittal and Kamakura, 2001), so more research on it has been called (Chang and Polonsky, 2012). Given that, in this research the actual repurchase behavior was measured in the situation where customer keeps the service active and increases the average amount spent in the service.

3.4. Results

A logistic regression analysis and a series of univariate analysis were conducted in order to test the hypotheses. As shown in Table 3.2, gender and age were significant predictors of the customer's complain behavior. The relationship between gender and the type of customers was significant at the level of 0.001. Thus, one can conclude that male customers were less likely to complain than the female counterparts (odds ratio = 0.304). These findings are similar to other studies, e.g. Kau *et al.* (1995) which pointed out that male customers are those who have a smaller intention to complain. Moreover, Mann-Whitney test was performed to determine differences between gender and the number of complaints. Hence, differences ($p < 0.001$) between male ($M_{Males} = 0.04$ +-

SD=0.202) and female customers (MFemales=0.24 +- SD=0.432) were found which revealed that female customers tend to complain more times than their male counterparts, so they presented a higher number of complaints. Therefore, hypothesis 1a is supported. Chi square test also confirmed these results ($X^2=2584.872$; $p<0.001$): Phi's coefficient=0.266 and the number of complainers increased from 4.2% to 23.5% when we distinguished from male to female customers.

Table 3.2 - Results of logistic regression analysis (complaint behavior as dependent variable)

	B (SE)	<i>p</i>	95% CI for Odds Ratio		
			<i>Lower</i>	Odds Ratio	<i>Upper</i>
Gender (Male)	-1.191(0.062)	0.000*	0.269	0.304	0.343
Age		0.000*			
Age (Gen Y)	0.850(0.269)	0.002*	1.380	2.340	3.968
Age (Gen X)	0.538(0.268)	0.045	1.012	1.712	2.895
Age (B.Boomers)	0.642(0.276)	0.020	1.105	1.900	3.266
Constant	-1.864(0.266)	0.000*		0.155	

Note: $R^2=0.487$ (Hosmer & Lemeshow), 0.043 (Cox & Snell), 0.073 (Nagelkerke). Model $X^2(4)=466.386$; $p<0.01$. * $p<0.01$.

Source: authors.

The relationship between age and the type of customers was also significant at the level of 0.001. It was also found that when age increases customers are less likely to complain. The odds of a young customer to complain were 2.340 times higher than the odds of an older customer. In fact, the odds ratio decreased from 2.340 to 1.712 and 1.900 when we moved from Generation Y group to Generation X group and to Baby Boomers group, respectively. So, the younger group was more motivated to complain than the older age group. Furthermore, a non-parametric test was performed (Kruskal-Wallis) to determine differences between age groups regarding the number of complaints. Results confirmed that age groups were statistically different ($p<0.001$). Young customers were those who presented the higher number of complaints, i.e. Generation Y complained more (MGenY=0.17 +- SD=0.378; MGenX=0.15 +- SD=0.362; MB.Boomers=0.14 +- SD=0.353; MSilentGen=0.15 +- SD=0.358) than any other age group ($p<0.001$). Such results are consistent with previous research, e.g. Day

et al. (1981) and provide support for hypothesis 1b is also supported. Chi square results also confirmed the association ($X^2=19.622$; $p<0.001$): V's coefficient = 0.023 and the number of complainers decreased from 16.4% to 15.0% when we distinguished from Generation Y to Silent Generation customers.

As shown in Table 3.3, through logistic regression analysis, the relationship between the type of customers and repurchase (those who experienced a failure and those who experienced no failure) was significant at the level of 0.001. So, the existence of the SRP phenomenon was confirmed. We found that those who experienced a failure and a consequently firm's recovery effort were more likely to repurchase than those who experienced no problem (odds ratio of customers who experienced no failure = 0.850). Chi square results also confirmed the association ($X^2=15.213$; $p<0.001$): V's coefficient = 0.020 and customers who experienced a failure and a subsequently recovery were more willing to repurchase (31.1%) than those who did not experience any failure (28.5%).

Table 3.3 - Results of logistic regression analysis (repurchase behavior as dependent variable)

	B (SE)	<i>p</i>	95% CI for Odds Ratio		
			<i>Lower</i>	Odds Ratio	<i>Upper</i>
Customers (no failure)	-0.162(0.062)	0.000*	0.797	0.850	0.906
Gender (Male)	0.109(0.062)	0.000*	1.063	1.115	1.169
Age		0.000*			
Age (Gen Y)	0.237(0.089)	0.008*	1.065	1.268	1.510
Age (Gen X)	0.311(0.088)	0.000*	1.148	1.364	1.621
Age (B.Boomers)	0.139(0.093)	0.133	0.959	1.149	1.378
Constant	-1.070(0.091)	0.000*		0.343	

Note: $R^2=0.936$ (Hosmer & Lemeshow), 0.002 (Cox & Snell), 0.003 (Nagelkerke). Model $X^2(5)=70.105$; $p<0.01$. * $p<0.01$.

Source: authors.

Both age and gender were significant predictors of whether the customer repurchase or not. The analysis revealed that the relationship between both demographic factors and repurchase was significant at the level of 0.001. Regarding gender, male customers are

more willing to experience the SRP (odds ratio = 1.115). Younger group of customers is also more likely to experience SRP when compared with the older age group (Gen Y = 1.268). Chi square results also proved all the associations ($p < 0.05$). The relationship between gender and repurchase got a $\Phi^2 = 0.017$. Though it is a small association, repurchase increased from 28.2% to 29.8% when we distinguished from female to male customers. The relationship between generational difference and repurchase got a $V^2 = 0.031$ and repurchase decreased from 28.4% to 23.9% when we distinguished from Generation Y to Silent Generation. So, hypotheses 2a and 2b are not supported.

In summary, nine hypotheses in total were tested and the results are summarized in Table 3.4.

Table 3.4 - Hypotheses validation

H1a: Complaint behavior varies by customer gender, namely female customers are more likely to complain.	Supported
H1b: Complaint behavior varies by generational difference, namely Generation Y customers is more likely to complain.	Supported
H2a: Post-recovery behavior varies by customer gender, namely female customers are more likely to experience SRP.	Not Supported
H2b: Post-recovery behavior varies by generational difference, namely Silent Generation is more likely to experience SRP.	Not Supported

Source: authors.

3.5. Discussion and conclusions

The results of our research showed that customer's gender and age affect costumers' complaint behavior and post-recovery responses supporting what is argued in the literature (Fails and Francis, 1996; Volkov *et al.*, 2005). However, it did not totally happen in the way that it was predicted according to the literature. Female customers were found to complain more which is consistent with the findings from e.g. (Heung and Lam, 2003). Empirical results also revealed, as proposed by Heung and Lam (2003) that young customers (or in this case Generation Y) are those who complain more. They are more demanding and have to take action when they do not receive what meets their

expectations, namely Generation Y, who have grown up taking the internet and mobile technologies for granted.

On the other hand, even though SRP exists transversely almost in all segments, Generation Y is more likely to experience it. One of the possible reasons for this contradictory finding is that they may be relatively easy to please in this context because they make their choices based on the assessment of other's opinions and it can influence their behavior in terms of switch to another service provider. Even after a service failure they may prefer to stay in a relationship with the same service provider because of their friends and family. Moreover, Generation Y complains more and is more likely to experience recovery paradox as well. The recovery strategy applied for this segment could be more effective than for the other age groups and the switching costs as well as the third party opinion (family, friends) could influence these results. In fact, mobile internet sector can reveal significant idiosyncrasies. Maybe moderators such as service type, failure type and severity, service recovery strategy, or even frontline staff behavior could help to explain these findings. Customers' perceptions of equity could also lead to differences within age and gender (Palmer *et al.*, 2000).

In terms of management implications, to encourage dissatisfied customers to give feedback is an important issue as we can conclude from our study. Complaints should be faced by managers as gifts instead of something useless. In such a competitive sector firms should try to retain the existing customers and turn dissatisfied ones in ambassadors. So, mutual communication between both parties should be encouraged. In this sense, different forms of complaining should be provided and incentives should be offered in order to encourage customers to give feedback. Employees play an important role in this process so that they must have the appropriate customer complaint handling skills. Training employees in order to assure that they know how to deal with a complaint and how to treat them is crucial. Managers should also pay attention to those customers who complain the most, namely to younger (particularly Generation Y) and male customers and their complaints should be answered quickly and strictly. Service providers are also encouraged to develop more effective recovery strategies, according to each segment, which may contribute to enhance customer's loyalty. They should not design their recovery strategies without understanding the impact of customers' personal characteristics on the expected outcomes.

3.6. Limitations and future research

Despite the useful findings, this research has some limitations which indicate directions for further research. First, only customers of one company in the internet mobile sector have been investigated. It would be useful to test if the patterns found here differ in other service settings. Second, the current model focuses only on age and gender. Other demographic factors that were not included in this research may have an effect on complaint behavior and post-recovery responses (e.g. personality traits, ethnicity). Our model was restricted only to consumer service sector and Portuguese culture, so its replication in other markets (e.g. consumer goods) as well as investigating different cultures would be worthwhile.

Further research should also consider justice theory since it is recognized that it can be influenced by these demographic factors and, consequently, affect customers' repurchase behavior. It would be also useful to verify the findings by investigating other service contexts (e.g. self-service technology context).

These analyses will extend the body of literature in services marketing, especially in service recovery, for the least explored fields and will contribute to explain the differences in customers' behavior.

**CHAPTER 4 - DOES SERVICE FAILURE CONTEXT
MATTER? CUSTOMERS' RESPONSE TO SERVICE
RECOVERY**

4.1. Introduction⁴

In a relationship-oriented era, satisfying customers is crucial for service providers, not only to enhance customers' satisfaction, but also to ensure a long term relationship with them. However, firms face situations where customers are dissatisfied due to the occurrence of a failure. A flawless service is hard to achieve despite being the objective of firms (Boshoff, 1997; Kuo and Wu, 2012). Recognizing the variety of failures that can occur and the effective recovery strategy to each one are the challenges of firms (Craighead *et al.*, 2004; Kuo *et al.*, 2011). Being aware of the potential negative impact service failures have on customer loyalty, recovery techniques can work as second opportunities to service providers deliver a positive experience (Hoffman *et al.*, 1995). In this context, an effective recovery could lead to a paradoxical situation: a customer who experiences a failure may become more satisfied than those who did not experience any problem. It is the so-called service recovery paradox phenomenon (SRP hereafter) (Ok *et al.*, 2007) and despite its potential benefits, only a few studies have analyzed it directly (Maxham, 2001).

The current research extends previous studies by studying the role of failure context, i.e. failure type and the failure severity and their impact on customers' post-recovery behavior, i.e. on repurchase behavior. The research aims first to assess the role of failure type and failure severity in customers' reactions. Second, it seeks to investigate the role of compensation, gender and relationship age as potential moderating variables in the aforementioned relationships. Finally, it is analyzed whether SRP exists in a mobile telecommunications setting, which variables contribute for its occurrence and how they influence it.

⁴ This third paper is the result of the paper "The impact of service failure severity on post-recovery behavior: the moderating role of gender and relationship age" discussion, which was published in the *Proceedings of the 23rd International Business Information Management Conference (IBIMA)* indexed by Thomson Reuters ISI and Scopus – CD-ROM edition. ISBN 978-0-9860419-1-4. This revised version was also accepted for publication in the *Journal of Marketing Research and Case Studies*.

4.2. Theoretical background and hypotheses development

4.2.1. Service failure – recovery context

A service failure is defined in the literature as an incident occurred during the service delivery which represents a loss for customers and leads to customers dissatisfaction (Smith *et al.*, 1999; Maxham, 2001). In fact, providing a service without failures is the firms' objective, however due to their specific characteristics it is almost impossible when we talk about services (Michel and Meuter, 2008). Hence, a service failure is considered a significant motivator of customers' switching behavior (Mccollough *et al.*, 2000).

Service recovery is perceived as a process by which a firm tries to rectify a breach in the service (Maxham, 2001). This process should be faced by firms as a strategic marketing variable that can potentiate an increase in customer satisfaction and retention (Hart *et al.*, 1990).

A good service recovery is crucial to enhance the relationship with dissatisfied customers (Tax *et al.*, 1998; Maxham, 2001) and to create conditions for the occurrence of the SRP. SRP has become a key focus in services marketing literature (De Matos *et al.*, 2007), regarding a situation where customers, after a firm's recovery effort, will be as satisfied as, or even more than those had not experienced any problem (Smith and Bolton, 1998; Mccollough *et al.*, 2000). Although this is a significant phenomenon for academics and practitioners, due to the opportunity it offers to achieve higher levels of customer satisfaction (Smith *et al.*, 1999; Priluck and Lala, 2009), literature has found mixed results: one school of studies confirms the phenomenon existence (Boshoff, 1997; Smith and Bolton, 1998; Michel, 2001; Michel and Meuter, 2008; Schminke *et al.*, 2014), while the other reveals the lack of evidence of such phenomenon and assumes it does not exist (Bolton, 1998; Mccollough *et al.*, 2000; Andreassen, 2001; Maxham, 2001; Shapiro *et al.*, 2006). Weun *et al.* (2004) on their study noted that failure severity could influence the SRP, mainly when less severe failures occurred. Contrary to weak failures, a severe one, even with an exceptionally response from the service provider, can cause a situation without equity and hard to restore.

4.2.2. The impact of service failure context on customers' behavioral outcomes

Two different service failure types are recognized in the literature (Bitner *et al.*, 1990; Keaveney, 1995): outcome and process failures. Outcome failures refer to what customers receive from the service, i.e. incidents related to the service core (e.g. when a subscribed internet mobile service is unavailable due to network problems). Process failures relate to how customers receive the service, i.e. problems with the service delivery (e.g. when a customer calls to the customer service to make complain and a call center employee answers in a rude way). Customer evaluations of service may vary according to the type of failure and its associated loss (Smith *et al.*, 1999): when an outcome failure occurs the customer suffers an economic loss, whereas process failure lead to a social loss. Although services marketing literature does not provide information about which failure type has more impact on customers' behavioral responses, Smith *et al.* (1999) suggested that customers' evaluations of service will differ according to the failure type occurred, since each one represents a different category of loss. Therefore, we expect that when an outcome failure occurs, customers' perceptions of distributive justice will be restored by recovery economic attributes, such as a monetary compensation or a fast resolution. Smith *et al.* (1999) found that process failures have a higher impact on customer dissatisfaction than outcome failures. Hence, we proposed the following hypotheses:

H1: Process failures will have a more negative influence on customers' repurchase than outcome failures.

H2: When a compensation is offered, the negative impact of an outcome failure on customers' repurchase will be lower than the negative impact of a process failure.

The lack of information about the role of service severity in the service recovery process is recognized in the literature and the need to consider this construct in services marketing literature research is stressed (Weun *et al.*, 2004). Therefore, previous studies argued that service failure severity influences customers' satisfaction (Smith *et al.*, 1999; Weun *et al.*, 2004), assuming that failures classification is very important for

firms (Kuo *et al.*, 2011). Service failure severity is the customer's perceived intensity of a critical incident and there is a positive relationship between customers' perceived loss and failure severity (Weun *et al.*, 2004; Huang, 2008). Service recovery expectations may vary positively with the failure severity (Bitner *et al.*, 1990; Hoffman *et al.*, 1995) and even after an adequately recovery, a severe failure (outcome or process) will produce a perceived loss (Weun *et al.*, 2004). Prior studies argued that the level of customer satisfaction decreases as failure severity increases (Gilly and Gelb, 1982; Hoffman *et al.*, 1995) and the failure severity influences the customers' evaluation of a service provider (Weun *et al.*, 2004). As failure severity increases, it will be more difficult to satisfy customers through service recovery strategies (Smith and Bolton, 1998; Mattila, 1999; Magnini *et al.*, 2007). Customers' zone of tolerance also varies depending on the context, and the more severe the service failure is the less tolerant customers will be (Zeithaml *et al.*, 1993). We expect that failure severity will negatively impact customers' post-recovery behavior, namely repurchase. Then, the following hypotheses were formulated:

H3: Severe failures will have a negative influence on customers' repurchase.

H4: Weak failures will have a lower negative impact on customers' repurchase when compensation is offered.

Some researchers argued that gender can modify projected behavior patterns (Homburg and Giering, 2001; Mittal and Kamakura, 2001; White and Dahl, 2006). Thus, a deeper analysis of the potential moderating role of gender on customers' repurchase behavior is called for research (Lin, 2010). They pointed out that male customers are more demanding and objective oriented (Cambra-Fierro *et al.*, 2013), expecting short-term results than female customers (Iacobucci and Ostrom, 1993). Since females are more socially oriented (Cambra-Fierro *et al.*, 2013), they tend to be more loyal than male customers (Iacobucci and Ostrom, 1993; Homburg and Giering, 2001; Mittal and Kamakura, 2001). It is expected that male customers will be more sensitive to severe failures, i.e. an increase on failure severity will represent a growth on customers'

dissatisfaction and, consequently, a decrease on repurchase. This expectation is reflected in the following hypothesis:

H5: The negative impact of severe failures on customers' repurchase behavior will be higher for male customers.

H6: The negative impact of process failures on customers' repurchase behavior will be higher for female customers.

Relational characteristics such as customer-service relationship duration/age can represent switching barriers and work as competitive advantages for firms. They are especially relevant in contractual services (Seiders *et al.*, 2005). A negative relationship between service failure severity and relationship age with the service provider is recognized in previous studies (Weun *et al.*, 2004). Due to the customer's perception of a loss experienced, the customer relationship age will decrease (Bolton, 1998). When a severe failure occurs, customers are less likely to identify themselves with service providers' values and the desire of maintaining the relationship decreases (Keaveney, 1995). Nevertheless, the duration of the customer/firm relationship increases customers' tolerance (Palmer *et al.*, 2000). After a problem with the service provider, customers' perceived level of equity will increase as the relationship age increases. Thus, it is expected that service failure severity has a higher negative impact on customers' response when relationship age is lower. The last hypotheses were formulated:

H7: The negative impact of severe failures on customers' repurchase behavior will be higher for beginner customers.

H8: The negative impact of process failures on customers' repurchase behavior will be higher for beginner customers.

4.3. Method

A firm's database in the context of the Portuguese mobile internet industry was selected to test the hypotheses and data collection was made, by convenience, in one of the major firms of the industry. The database included the customers' telephone calls

between January 2012 and January 2013, i.e. a total of 40,813 customers who contacted (those who had experienced a service failure and those who had not - control group) the call center. The strategy behind this choice has been the competitiveness in the telecommunications sector and because such a competitive context underlines the relevance of a deep understanding of customers' characteristics.

Relationship age with the service considered that the service contract length is usually 24 months. The analyzed service in this study has a contractual loyalty of 24 months and customers who want to change the service provider before the end of this period have to pay penalties. Beginner customers are those who have a shorter relationship with the service provider (less than 24 months) and advanced customers have a longer relationship (more than 24 months), i.e. they do not have the obligation to remain in a relationship with this service provider. Variables were divided in groups: compensation (with; without); failure type (outcome failure; process failure); failure magnitude (weak; moderate; severe) and relationship age (beginner customers; advanced customers).

The profile of the customers indicates that 48.9% of customers were males and 51.1% females. Most of the customers were in the age group of 34 to 53 (52.4%) followed by the age group of 19 to 33 (32.3%).

4.4. Construct operationalization and measures

Literature has called for more research on effective repurchase behavior (Chang and Polonsky, 2012). Seiders *et al.* (2005) considered the actual repurchase behavior as repeated visits to the service and/or an increased amount spent on the service. In this research, repurchase is measured as follows: customer keeps the service active (the account is active) and increases the amount spent in the service (average amount spent). Each service failure was classified according to its severity, using a three-item scale adapted from Hess *et al.* (2003): severe, moderate and weak. These classifications resulted from two exploratory interviews to a supervisor of the Complaint Management Service to validate the items.

4.5. Results

Through logistic regression analysis we found that failure type and failure severity ($p = 0.000$) were significant predictors of customers' repurchase behavior. Although both types of failures (process and outcome) were found to be significant predictors of customers' response (see Table 4.1), results showed that a customer who experienced process failures were more likely to repurchase (odds ratio = 3.818). So, hypothesis 1 is not supported because outcome failures had a more negative impact on repurchase behavior than process failures. Compensation was proved to moderate the relationship between failure type and repurchase, but not as we expected. In fact, outcome failures showed lower positive impact on repurchase (odds ratio = 1.112) than process failures (odds ratio = 1.920), when compensations were offered to customers. So, hypothesis 2 is not supported.

Table 4.1 - Results of logistic analysis

	B (SE)	<i>p</i>	95% CI for Odds Ratio		
			<i>Lower</i>	Odds Ratio	<i>Upper</i>
F_type		0.000*			
F_type (Process)	1.340 (0.155)	0.000*	2.820	3.818	5.169
F_type (Outcome)	1.082 (0.034)	0.000*	2.758	2.951	3.157
F_type by Gender		0.615			
F_type (Process) by Gender (Male)	-0.175 (0.191)	0.360	0.577	0.839	1.221
F_type (Outcome) by Gender (Male)	0.014 (0.038)	0.714	0.941	1.014	1.093
F_type by R_age		0.000*			
F_type (Process) by R_age (Beginner)	0.147 (0.215)	0.496	0.759	1.158	1.765
F_type (Outcome) by R_age (Beginner)	0.426 (0.046)	0.000*	1.400	1.531	1.675
F_type by Compensation		0.000*			
F_type (Process) by Compensation (Without)	0.652 (0.205)	0.001*	1.284	1.920	2.869
F_type (Outcome) by Compensation (Without)	0.106 (0.043)	0.014	1.022	1.112	1.210
Constant	-1.731 (0.017)	0.000*		0.177	

Note: $R^2=0.473$ (Hosmer & Lemeshow), 0.061 (Cox & Snell), 0.094 (Nagelkerke). Model $X^2(8)=2562.88$; $p<0.01$. * $p<0.01$.

Source: authors.

Apart from the proposed hypotheses, further analyses were conducted to analyze whether the SRP occurs. Then, we performed a Chi Square test to examine if there is a relationship between variables and to understand how the relationship varies across groups of customers. Results confirmed the existence of the SRP phenomenon: a relationship between customers who experienced a service failure with the service provider and repurchase was encountered ($X^2=2584.872$; $p<0.001$) since the p-value is <0.05 , confirming the association. Moreover, this relationship between the aforementioned variables got a Phi's coefficient of 0.252, statistically supporting the relationship. Though it is not a strong association, customers who experienced a failure and subsequently a recovery were more willing to repurchase (37.7%) than those who did not experience any failure (15%).

As shown in Table 4.2, the odds of a customer who experienced a weak failure to have repurchased were 175.294 times higher than in the case of no failure. Results showed that failure severity negatively impacted repurchase behavior, suggesting that customers who experienced more severe failures were less likely to repurchase (odds ratio increased from 4.017 to 175.294 when we moved from severe to weak failures). Then, SRP is more likely to occur when weak failures happen. According to these results, hypothesis 3 was supported.

The interaction between failure severity and compensation presented a significant contribution to the model ($p = 0.000$). Customers are more likely to repurchase and SRP phenomenon is more likely to take place when compensation is offered due to a weak critical incident, supporting hypothesis 4: the odds ratio when compensation was not offered was 0.033 for weak failures; 1.118 for moderate failures; and 1.987 for severe failures.

The interactions between gender and failure type ($p = 0.615$) and gender and failure severity (0.911) had no statistical significance explaining variations in repurchase ($p > 0.05$). So, hypotheses 5 and 6 were not supported.

Relationship age and failure severity interaction was another significant predictor of customers' repurchase behavior ($p = 0.000$). However, the odds of an advanced customer to repurchase when a moderate failure occurs were only 0.648 times than for beginner customers and the interaction when a weak and a severe failure occur had no statistical significance ($p>0.05$), rejecting Hypothesis 7. Moreover, relationship age and

failure type interaction contributed to the model ($p = 0.000$). As shown in Table 4.1, a beginner customer was more willing to repurchase when experienced an outcome failure (odds ratio = 1.531). Since this interaction was not statistically significant for process failures ($p = 0.496$), not contributing to this model, hypothesis 8 was rejected.

Table 4.2 - Results of logistic analysis

	B (SE)	<i>p</i>	95% CI for Odds Ratio		
			<i>Lower</i>	Odds Ratio	<i>Upper</i>
F_severity		0.000*			
F_severity (Weak)	5.166 (0.859)	0.000*	32.583	175.294	943.071
F_severity (Moderate)	1.498 (0.051)	0.000*	4.046	4.471	4.941
F_severity (Severe)	1.391 (0.224)	0.000*	2.590	4.017	6.232
Compensation by F_severity		0.000*			
Compensation (Without) by F_severity (Weak)	-3.399 (0.775)	0.000*	0.007	0.033	0.153
Compensation (Without) by F_severity (Moderate)	0.111 (0.044)	0.011	1.026	1.118	1.218
Compensation (Without) by F_severity (Severe)	0.687 (0.198)	0.001*	1.347	1.987	2.931
Gender by F_severity		0.911			
Gender (Male) by F_severity (Weak)	0.216 (0.487)	0.664	0.469	1.241	3.284
Gender (Male) by F_severity (Moderate)	0.009 (0.039)	0.818	0.936	1.009	1.088
Gender (Male) by F_severity (Severe)	-0.101 (0.186)	0.586	0.628	0.904	1.301
R_age by F_severity		0.000*			
R_age (Beginner) by F_severity (Weak)	-0.162 (0.520)	0.755	0.307	0.850	2.357
R_age (Beginner) by F_severity (Moderate)	0.434 (0.046)	0.000*	0.592	1.543	0.710
R_age (Beginner) by F_severity (Severe)	-0.077 (0.209)	0.715	0.615	0.926	1.396
Constant	-1.731 (0.017)	0.000*		0.177	

Note: $R^2=0.534$ (Hosmer & Lemeshow), 0.063 (Cox & Snell), 0.098 (Nagelkerke). Model $X^2(8)=2675.725$; $p<0.01$. * $p<0.01$.

Source: authors.

To sum up, eight hypotheses were tested and their results are summarized in Table 4.3.

Table 4.3 - Hypotheses validation

H1: Process failures will have a more negative influence on customers' repurchase than outcome failures.	Not supported
H2: When a compensation is offered, the negative impact of an outcome failure on customers' repurchase will be lower than the negative impact of a process failure.	Not supported
H3: Severe failures will have a negative influence on customers' repurchase.	Supported
H4: Weak failures will have a lower negative impact on customers' repurchase when compensation is offered.	Supported
H5: The negative impact of severe failures on customers' repurchase behavior will be higher for male customers.	Not supported
H6: The negative impact of process failures on customers' repurchase behavior will be higher for female customers.	Not supported
H7: The negative impact of severe failures on customers' repurchase behavior will be higher for beginner customers.	Not supported
H8: The negative impact of process failures on customers' repurchase behavior will be higher for beginner customers.	Not supported

Source: authors.

4.6. Discussion and conclusions

The findings of our research confirmed that service failures context (failure type and failure severity) affect customer behavioral outcome, however not completely in the way it was expected. Our findings do not confirm the moderating effect of gender on the relationship between failure context (failure severity and failure type) and customers' repurchase behavior. It became clear that severe failures can cause huge damage in the customer-firm relationship, especially when customers have a longer

relationship with the service provider. Contrary to what is suggested by Palmer *et al.* (2000).

Our additional analyses showed evidence of the SRP phenomenon which was proved to be more likely to occur when a beginner customer experienced a more severe failure and when an advanced customer experienced a weak failure. Up to date, a huge number of studies have investigated service failures and recoveries, but few have empirically examined the SRP phenomenon in the current model of service recovery (Mccollough *et al.*, 2000; De Matos *et al.*, 2007). However, contradictory results in SRP research offer a stimulus to further research on it. We hope this research contributes to clarify not consistent studies, proving SRP and showing in which conditions it can arise.

From a managerial perspective, since service failures are unavoidable and influence post-recovery repurchase behavior, an effective service recovery management is essential to ensure SRP phenomenon. Results provided evidences of SRP presence in this setting: it is more likely to occur when less severe failures happen; for those who have a shorter relationship age with the firm, due to an outcome failure; and when compensation is offered to recovery from a weak failure as well. In fact, failure severity influences negatively customers' post-recovery behavior, which is consistent with other studies (Hoffman *et al.*, 1995; Mattila, 1999; Magnini *et al.*, 2007). Consequently, it negatively impacts on the existence of the SRP. The classification of service failures by degree of severity may provide firms additional insights into customers' responses (Smith *et al.*, 1999). Thus, understanding the severity level of a service failure is important to design the best recovery strategies (Hart *et al.*, 1990). We found that when failure severity was higher, repurchase had a more negative behavior. Gender is not a moderator of the relationship between failure context and customers' repurchase behavior in the service recovery model which is inconsistent with other researchers' studies such as Mattila (2010), Homburg and Giering (2001), Mittal and Kamakura (2001). Relationship age also have a moderating role in the relationship between failure severity and repurchase. Customers with a shorter relationship age with the service provider are more likely to repurchase. In the studied firm, the length of the contract is 24 months. Having occurred a severe or moderate failure, after this period, customers proved to be more likely to abandon the service and not to repurchase. Paying attention to these variables role in the SRP phenomenon and in this specific context, one can

potentiate a better complaint management and contribute to the increasing of customer loyalty.

4.7. Limitations and future research

The present research found some limitations. Although literature called for research in sectors less examined (Cambra-Fierro *et al.*, 2013), we have only analyzed the Portuguese internet mobile sector. So, generalizing to other service industries may not be appropriate and future research in other industries would be useful to test the similarity of the findings. De Matos *et al.* (2007), through their meta-analysis, argued that SRP is more likely to be found in the hospitality industry due to its high-contact characteristic. Managers should be aware of these differences across service industries. In addition, because a quantitative database has been used, customers' perceptions and emotional involvement were not tested. Further, not all researchers apply the same theoretical definition of SRP neither the same operationalization. We compared a recovery group with a non-failure control group, i.e. we used a between-subjects approach (Mccollough *et al.*, 2000) instead of a within-subjects approach (Maxham, 2001). Mixed findings about SRP could be justified by these methodological differences found in previous studies. Finally, the moderator role of other customers' characteristics such as age and education may bring important findings, as well. Moreover, identifying how severity varies according each type of failure, for example, would allow managers to implement strategies to reduce the occurrence of those types of failures.

CHAPTER 5 - Conclusions, limitations and further research

5.1. General conclusions

The main objective of this study was to examine whether SRP occurs in a failure-recovery context. We analyzed what conditions may influence this phenomenon. While past studies have focused on discrete purchasing settings, we used a database from a mobile telecommunications firm, in order to develop a longitudinal study, analyzing customers' behavior over a long period of time.

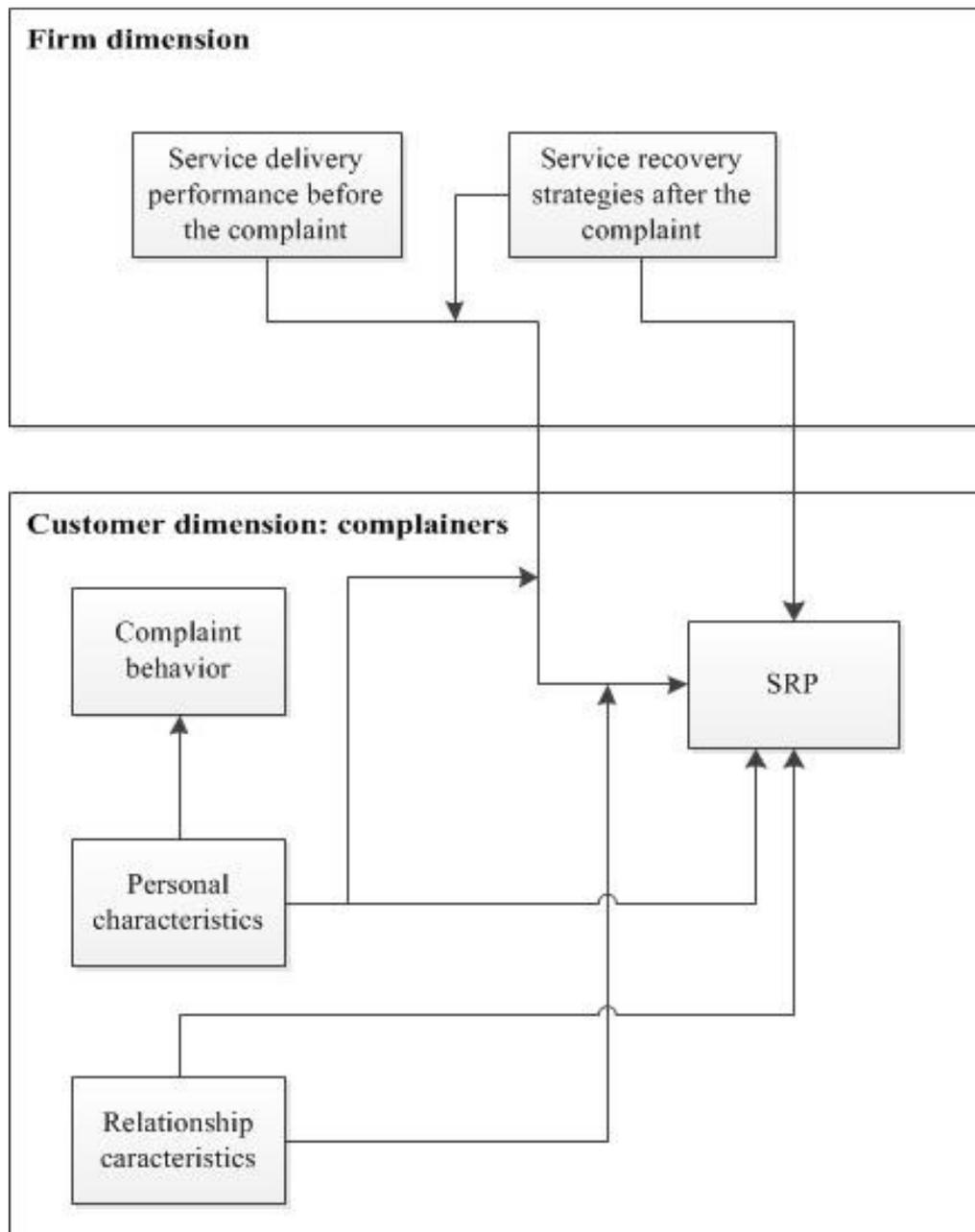
Our study attempts to build a more complete framework of the variables impacting on customers' response to a service recovery situation and potentiate the occurrence of the SRP. Hence, we would suggest a framework for the factors that contribute to the appearance of SRP. These factors can be presented in two main groups:

1. Firm level effects:
 - a. Factors associated with the performance of the service delivery before the complaint: service failure context, i.e. the type of failure and the failure severity;
 - b. Factors associated with the recovery strategies used by the firm after a complaint: compensation and timeliness as recovery attributes;
2. Customer level effects:
 - a. Complaint behavior: different type of customers according to whether the customer complain or not;
 - b. Factors associated with the customers' personal characteristics: age and gender as demographic factors;
 - c. Factors associated with the relationship between the customer and the service provider: relationship age.
 - d. Customer response: whether customers repurchase and experience the SRP or not.

As it is shown in Figure 5.1 and proved in the papers presented in this research, these factors interact with each other. However, they do not always show the same impact. Future research can add other variables effects to this framework. Contextual factors such as the existence or not of competitors in the market and the sector regulation can bring new insights into this study. Having not this kind of information in the studied database, we could not test contextual factors.

Despite their differences, the three papers have common points. SRP was explored and proved in all papers, though each one introduced and tested new variables and their influence in the customers' post-recovery response.

Figure 5.1 - Factors contributing to the SRP



Source: authors.

In summary, the main contributions of this research are: (i) to show the existence of the SRP in a continuous purchasing context, considering customers' actual behavior after a failure-recovery encounter (Paper 1, Paper 2 and Paper 3); (ii) to identify timeliness as a critical antecedent of customers' post-recovery repurchase and that SRP is more likely to happen in this case (Paper 1); (iii) to validate that demographic characteristics affect directly customers' responses since it was found that both gender and age affect customers' complaint behavior and repurchase behavior. Generation Y is one that complains and repurchases more. Then, men customers and Generation Y are more likely to experience SRP (Paper 2); (iv) to prove the negative impact of failure context (type and severity) on customers' response, particularly when customers have a longer relationship with the firm. SRP is found to be more likely to happen in the case that compensation is offered to recover from a weak failure and for beginner customers when a moderate or outcome failure occurs (Paper 3).

This topic should be very relevant for researchers and managers once service failure is recognized to be one the main reasons for customers' switching behavior (De Matos *et al.*, 2013). So, understanding service recovery is relevant, particularly SRP since it can enhance customer retention and also impact firms' profits (Mccollough *et al.*, 2000). Thus, several contributions to academics and managers are presented below.

5.2. Scientific contributions

Conceptually, this research helps to clarify whether SRP in fact exists. It addresses the lack of information on the factors which most contribute to its occurrence as well (De Matos *et al.*, 2007).

Up to the present time, to our knowledge, no empirical research exists addressing these questions through firm's perspective in a B2C environment. Indeed, customer's perspective has been privileged in this topic. Therefore, this study focuses its analysis from the firm's viewpoint, measuring the customers' actual post-recovery behavior rather than behavior intentions or even satisfaction. An exploratory perspective was avoided in this case and it was collected a sample with a higher size and representation of the general population of the mobile telecommunication users since it has been called in the literature (Kau and Loh, 2006). Further, we apply the same theoretical definition of SRP in all studies, comparing a recovery group with a non-failure control group, i.e.

we used a between-subjects approach (Mccollough, 2000) though, different operationalization of the repurchase behavior.

In this context, it was developed a conceptual framework which explains the relationships between firms and customers in a service failure-recovery setting. The framework was empirically tested through quantitative methods. The qualitative method was only applied to assess a better measurement of some variables.

The research has allowed the identification of the SRP phenomenon as an important effect of a failure-recovery encounter and an opportunity for firms to enhance the relationship with customers in a competitive environment. It was also investigated SRP antecedents through the analysis of five relevant moderators: severity of the failure, failure type, customers' demographic characteristics, relationship age and recovery attributes. Customers' personal characteristics have showed an important role, discriminating the relationships between both parties and also the SRP phenomenon. Segmenting by generations is even more suitable since the research is developed in a telecommunications sector and digital generation or Generation Y is actually a segment that cannot be ignored. Relationship age can also influence such phenomenon so it must be taken into account as well as failure context. The relationship after a service failure and the consequently recovery efforts are different regarding the type and the severity of the failure.

5.3. Managerial contributions

Regarding managerial contributions, it is important to highlight the importance that firms must assign to SRP phenomenon. Probably, firms are not totally aware of the benefits that a second opportunity to enhance customers' satisfaction and loyalty through recovery attempts can provide. First of all, a quickly problem resolution should be offered. This is a competitive sector and a service failure in this sector may imply huge costs for customers, mainly if it represents a severe problem. Then, an immediate (or almost) resolution can influence positively customers' post-recovery behavior. In a sector where no high-contact is provided like in hotel and restaurant settings, firms should make efforts in order to recompense customers for this gap through the call center service and a good performance in the recovery process. Another important result is the impact of each type of service failure in customers' responses. In fact, managers

should analyze what kind of losses an outcome failure or a process failure in a mobile telecommunications setting can involve. For example, if the outcome does not meet the customers' expectations, the restaurant can simply rectify the failure giving another meal. However, in a telecommunication context the situation is not so simple. If the service stop working for an entire day and customers' cellphones are out of service it can be very inconvenient for customers both in professional and personal terms. Thus, in this context outcome failures can represent higher losses than process failures and managers should be aware of this.

The study also suggests that it is pertinent to take into account the segmentation by customers' personal characteristics, particularly gender and age (Generation Y vs other generations). According to these factors, managers can target their efforts and consider redesign their strategies in a better way. For example, since young customers are those who have shown a higher complaint and repurchase rate, it is more important invest in their retention. They are more willing to share their negative experiences with the firm and give a second opportunity to the service provider than other segments. Additionally, they are also more likely to repurchase and, consequently, SRP is more likely to occur with this group.

5.4. Limitations and suggestions for further research

All researches have limitations and this one is not an exception, offering opportunities for future research.

It has been argued in the literature that recovery evaluation is context specific (Hess *et al.*, 2003) and this study examined SRP in a mobile telecommunications setting. Future studies may compare multi-service industries results in order to validate the findings.

Due to the database characteristics (secondary data) it was not possible analyze other important variables. To overcome this limitation, future research should collect data about contextual factors and the failure-recovery process for each customer which allows the inclusion of more variables in this framework. For example, future research should analyze whether the failure was co-created by customers and whether firms involve their customers in the recovery process. Since customers can co-create their experiences with the service provider, it will also affect customer satisfaction (Roggeveen *et al.*, 2012).

Another issue that lacks research is the effect of a service failure and its consequently recovery efforts in switching intentions or customers' switching behavior (Huang and Chang, 2008). It would be relevant in a future research address actual customers' switching behavior as well, not focusing only on switching intentions which has been investigating in the most studies about this topic. Switching costs also might influence switching behavior. The usage of the service, i.e. how many minutes each customer use per month, or the internet rate plan they subscribed, are control variables which could be useful to test in this setting is because they can imply switching costs. Despite their dissatisfaction some customers only stay in a relationship with a service provider due to the penalties they would have to pay if they wish to cancel the contract before the end date.

The mobile telecommunications services imply a long-term contractual relationship because it is a continuous purchasing setting. Replicate this study and compare customers' responses in a long-term relationship with those in a short-term relationship, measuring the actual behavior in a discrete purchasing setting where switching barriers are almost inexistent (e.g. hospitality industry) could be useful.

Finally, this research focused on a specific firm. It will be worthwhile that future research examine these issues across firms in the same sector because brand equity can mitigate the negative impact of a service failure (Brady *et al.*, 2008).

REFERENCES

- Adner, R. and R. Kapoor (2010), "Value creation in innovation ecosystems: how the structure of technological interdependence affects firm performance in new technology generations", *Strategic Management Journal*, Vol. 31, N°3, pp. 306-333.
- Ahmad, S. (2002), "Service failures and customer defection: a closer look at online shopping experiences", *Managing Service Quality*, Vol. 12, N°1, pp. 19-29.
- Andreassen, T. W. (2001), "From Disgust to Delight Do Customers Hold a Grudge?", *Journal of Service Research*, Vol. 4, N°1, pp. 39-49.
- Bitner, M. J.; B. H. Booms and M. S. Tetreault (1990), "The Service Encounter: Diagnosing Favorable and Unfavorable Incidents", *Journal of Marketing*, Vol. 54, N°January, pp. 71-84.
- Blodgett, J. G. and D. H. Granbois (1992), "Toward An Integrated Conceptual Model Of Consumer Complaining Behavior", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 5, pp. 93-103.
- Blodgett, J. G.; D. J. Hill and S. S. Tax (1997), "The Effects of Distributive, Procedural, and Interactional Justice on Postcomplaint Behavior", *Journal of Retailing*, Vol. 73, N°2, pp. 185-210.
- Bohlin, E.; J. C. Burgelman and C. R. Casal (2007), "The future of mobile communications in the EU", *Telematics and Informatics*, Vol. 24, pp. 238-242.
- Bolton, R. N. (1998), "A dynamic model of the duration of the customer's relationship with a continuous service provider: The role of satisfaction", *Marketing Science*, Vol. 17, N°1, pp. 45-65.
- Bolton, R. N. and J. H. Drew (1992), "Mitigating the Effect of Service Encounters", *Marketing Letters*, Vol. 3, N°1, pp. 57-70.
- Bolton, R. N.; A. Parasuraman; A. Hoefnagels; N. Migchels; S. Kabadayi; T. Gruber and Y. K. Loureiro (2013), "Understanding Generation Y and their use of social media: a review and research agenda", *Journal of Service Management*, Vol. 24, N°3, pp. 245-267.

- Boshoff, C. (1997), "An experimental study of service recovery options", *International Journal of Service Industry Management*, Vol. 8, N°2, pp. 110-130.
- Boshoff, C. (2012), "A Neurophysiological Assessment of Consumers' Emotional Responses to Service Recovery Behaviors: The Impact of Ethnic Group and Gender Similarity", *Journal of Service Research*, Vol. 15, N°4, pp. 401-413.
- Brady, M. K.; J. J. Cronin; G. L. Fox and M. L. Roehm (2008), "Strategies to offset performance failures: The role of brand equity", *Journal of Retailing*, Vol. 84, N°2, pp. 151-164.
- Brown, S. W.; D. L. Cowles and T. L. Tuten (1996), "Service recovery: its value and limitations as a retail strategy", *International Journal of Service Industry Management*, Vol. 7, N°5, pp. 32-46.
- Cambra-Fierro, J.; J. M. Berbel-Pineda; R. Ruiz-Benítez and R. Vázquez-Carrasco (2013), "Analysis of the moderating role of the gender variable in service recovery processes", *Journal of Retailing and Consumer Services*, Vol. 20, N°4, pp. 408-418.
- Chang, Y. W. and M. J. Polonsky (2012), "The influence of multiple types of service convenience on behavioral intentions: The mediating role of consumer satisfaction in a Taiwanese leisure setting", *International Journal of Hospitality Management*, Vol. 31, N°1, pp. 107-118.
- Cheong, K.; J. Kim and S. So (2008), "A Study of Strategic Call Center Management: Relationship between Key Performance Indicators and Customer Satisfaction", *European Journal of Social Sciences*, Vol. 6, N°2, pp. 268-276.
- Choi, B. and B. J. Choi (2014), "The effects of perceived service recovery justice on customer affection, loyalty, and word-of-mouth", *European Journal of Marketing*, Vol. 48, N°1/2, pp. 108-131.
- Conlon, D. E. and N. M. Murray (1996), "Customer Perceptions of Corporate Responses to Product Complaints: The Role of Explanations", *Academy of Management Journal*, Vol. 39, N°4, pp. 1040-1056.

- Craighead, C. W.; K. R. Karwan and J. L. Miller (2004), "The effects of severity of failure and customer loyalty on service recovery strategies", *Production and Operations Management*, Vol. 13, N°4, pp. 307-321.
- Davidow, M. (2000), "The Bottom Line Impact of Organizational Responses to Customer Complaints", *Journal of Hospitality & Tourism Research*, Vol. 24, N°4, pp. 473-90.
- Davidow, M. (2003), "Organizational Responses to Customer Complaints: What Works and What Doesn't", *Journal of Service Research*, Vol. 5, N°3, pp. 225-250.
- Day, R. L.; K. Grabicke; T. Schaetzle and F. Staubach (1981), "The hidden agenda of consumer complaining", *Journal of Retailing*, Vol. 57, N°3, pp. 86-106.
- De Matos, C. A.; J. L. Henrique and F. De Rosa (2013), "Customer reactions to service failure and recovery in the banking industry: the influence of switching costs", *Journal of Services Marketing*, Vol. 27, N°7, pp. 526-538.
- De Matos, C. A.; J. L. Henrique and C. a. V. Rossi (2007), "Service Recovery Paradox: A meta-analysis", *Journal of Service Research*, Vol. 10, N°1, pp. 60-77.
- Dean, A. M. (2007), "The Impact of the Customer Orientation of Call Center Employees on Customers' Affective Commitment and Loyalty", *Journal of Service Research*, Vol. 10, N°2, pp. 161-173.
- Durvasula, S.; S. Lysonski and S. C. Mehta (2000), "Business-to-business marketing: Service recovery and customer satisfaction issues with ocean shipping lines", *European Journal of Marketing*, Vol. 34, N°3/4, pp. 433-452.
- Fails, S. L. and S. K. Francis (1996), "Effect of Demographic Variables on Self Concept of Positive and Negative Word-Of-Mouth", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 9, pp. 200-206.
- Feinberg, R. A.; I.-S. Kim; L. Hokama; K. De Ruyter and C. Keen (2000), "Operational determinants of caller satisfaction in the call center", *International Journal of Service Industry Management*, Vol. 11, N°2, pp. 131-141.

- Garbarino, E. and M. S. Johnson (1999), "The different roles of satisfaction, trust, and commitment in customer relationships", *Journal of Marketing*, Vol. 63, N°2, pp. 70-87.
- Gelbrich, K. and H. Roschk (2011), "A Meta-Analysis of Organizational Complaint Handling and Customer Responses", *Journal of Service Research*, Vol. 14, N°1, pp. 24-43.
- Ghuri, P. and K. Grønhaug (2005), *Research Methods in Business Studies: A Practical Guide*, Harlow: Financial Times Prentice Hall.
- Gilly, M. C. and B. D. Gelb (1982), "Post-Purchase Consumer Processes and the Complaining Consumer", *Journal of Consumer Research*, Vol. 9, N°December, pp. 323-328.
- Grönroos, C. (2000), *Service Management and Marketing: A Customer Relationship Approach*, Chichester, U.K.: Wiley.
- Gruber, T.; I. Szmigin and R. Voss (2009), "Handling customer complaints effectively A comparison of the value maps of female and male complainants", *Managing Service Quality*, Vol. 19, N°6, pp. 636-656.
- Halstead, D. and T. Page (1992), "The Effects Of Satisfaction And Complaining Behavior On Consumer Repurchase Intentions", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 5, pp. 1-11.
- Harris, K. E.; D. Grewal; L. A. Mohr and K. L. Bernhardt (2006), "Consumer responses to service recovery strategies: The moderating role of online versus offline environment", *Journal of Business Research*, Vol. 59, N°4, pp. 425-431.
- Hart, C. W. L.; J. L. Heskett and W. E. J. Sasser (1990), "The Profitable Art of Service Recovery", *Harvard Business Review*, Vol. 68, N°July-August, pp. 148-156.
- Hess, R. L.; S. Ganesan and N. M. Klein (2003), "Service failure and recovery: The impact of relationship factors on customer satisfaction", *Journal of the Academy of Marketing Science*, Vol. 31, N°2, pp. 127-145.

- Heung, V. and T. Lam (2003), "Customer complaint behaviour towards hotel restaurant services", *International Journal of Contemporary Hospitality Management*, Vol. 15, N°5, pp. 283-289.
- Hocutt, M. A.; M. R. Bowers and D. T. Donovan (2006), "The art of service recovery: fact or fiction?", *Journal of Services Marketing*, Vol. 20, N°3, pp. 199-207.
- Hoffman, K. D.; S. W. Kelley and H. M. Rotalsky (1995), "Tracking service failures and employee recovery efforts", *Journal of Services Marketing*, Vol. 9, N°2, pp. 49-61.
- Homburg, C. and A. Furst (2007), "See no evil, hear no evil, speak no evil: a study of defensive organizational behavior towards customer complaints", *Journal of the Academy of Marketing Science*, Vol. 35, N°4, pp. 523-536.
- Homburg, C. and A. Giering (2001), "Personal Characteristics as Moderators of the Relationship Between Customer Satisfaction and Loyalty—An Empirical Analysis", *Psychology & Marketing*, Vol. 18, N°1, pp. 43-66.
- Huang, J. H. and C. C. Chang (2008), "The Role of Personality Traits in Online Consumer Complaint Behavior and Service Recovery Expectation", *Social Behavior and Personality*, Vol. 36, N°9, pp. 1223-1231.
- Huang, W. H. (2008), "The impact of other-customer failure on service satisfaction", *International Journal of Service Industry Management*, Vol. 19, N°4, pp. 521-536.
- Iacobucci, D. and A. Ostrom (1993), "Gender Differences in the Impact of Core and Relational Aspects os Services on the Evaluation of Service Encounters", *Journal of Consumer Psychology*, Vol. 2, N°3, pp. 257-286.
- Karatepe, O. (2006), "Customer complaints and organizational responses: the effects of complainants' perceptions of justice on satisfaction and loyalty", *Hospitality Management*, Vol. 25, N°1, pp. 69-90.
- Karatepe, O. and E. Ekiz (2004), "The effects of organizational responses to complaints on satisfaction and loyalty: a study of hotel guests in Northern Cyprus", *Managing Service Quality*, Vol. 14, N°6, pp. 476-486.

- Kau, A. and W. Loh (2006), "The effects of service recovery on consumer satisfaction: a comparison between complainants and non-complainants", *Journal of Services Marketing*, Vol. 20, N°2, pp. 101-111.
- Kau, A. K.; D. Richmond and S. Han (1995), "Determinants of Consumer Complaint Behaviour: A Study of Singapore Consumers", *Journal of International Consumer Marketing*, Vol. 8, N°2, pp. 59-76.
- Keaveney, S. M. (1995), "Customer switching behavior in service industries: an exploratory study", *Journal of Marketing*, Vol. 59, N°2, pp. 71-81.
- Kelley, S. W.; K. D. Hoffman and A. M. Davis (1993), "A Typology of Retail Failures and Recoveries", *Journal of Retailing*, Vol. 69, N°4, pp. 429-452.
- Kim, M. G.; C. Y. Wang and A. S. Mattila (2010), "The relationship between consumer complaining behavior and service recovery", *International Journal of Contemporary Hospitality Management*, Vol. 22, N°7, pp. 975-991.
- Kuo, Y. F. and C. M. Wu (2012), "Satisfaction and post-purchase intentions with service recovery of online shopping websites: Perspectives on perceived justice and emotions", *International Journal of Information Management*, Vol. 32, N°2, pp. 127-138.
- Kuo, Y. F.; S. T. Yen and L. H. Chen (2011), "Online auction service failures in Taiwan: Typologies and recovery strategies", *Electronic Commerce Research and Applications*, Vol. 10, N°2, pp. 183-193.
- Lee, Y. L.; B. Sparks and K. Butcher (2013), "Service encounters and face loss: Issues of failures, fairness, and context", *International Journal of Hospitality Management*, Vol. 34, pp. 384-393.
- Levesque, T. J. and G. H. G. Mcdougall (2000), "Service problems and recovery strategies: An experiment", *Canadian Journal of Administrative Sciences-Revue Canadienne Des Sciences De L Administration*, Vol. 17, N°1, pp. 20-37.
- Lin, H. H.; Y. S. Wang and L. K. Chang (2011a), "Consumer responses to online retailer's service recovery after a service failure A perspective of justice theory", *Managing Service Quality*, Vol. 21, N°5, pp. 511-534.

- Lin, H. H.; Y. S. Wang and L. K. Chang (2011b), "Consumer responses to online retailer's service recovery after a service failure: A perspective of justice theory", *Managing Service Quality*, Vol. 21, N°5, pp. 511-534.
- Lin, W. B. (2010), "Service recovery expectation model – from the perspectives of consumers", *The Service Industries Journal*, Vol. 30, N°6, pp. 873-889.
- Lovelock, C. H. (1983), "Classifying Services to Gain Strategic Marketing Insights", *Journal of Marketing*, Vol. 47, N°3, pp. 9-20.
- Lovelock, C. H. and J. Wirtz (2007), *Services Marketing: People, Technology, Strategy*, New Jersey: Pearson Prentice Hall.
- Magnini, V. P.; J. B. Ford; E. P. Markowski and E. D. Honeycutt Jr (2007), "The service recovery paradox: justifiable theory or smoldering myth?", *Journal of Services Marketing*, Vol. 21, N°3, pp. 213-225.
- Manickas, P. A. and L. J. Shea (1997), "Hotel Complaint Behavior and Resolution: A Content Analysis", *Journal of Travel Research*, Vol. 21, N°2, pp. 68-73.
- Mattila, A. S. (1999), "An examination of factors affecting service recovery in a restaurant setting", *Journal of Hospitality and Tourism Research*, Vol. 23, N°3, pp. 284-298.
- Mattila, A. S. (2010), "Do women like options more than men? An examination in the context of service recovery", *Journal of Services Marketing*, Vol. 24, N°7, pp. 499-508.
- Mattila, A. S. and D. J. Mount (2003), "The Role of Call Centers in Mollifying Disgruntled Guests", *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 44, N°4, pp. 75-80.
- Maxham, J. G. (2001), "Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions", *Journal of Business Research*, Vol. 54, N°1, pp. 11-24.
- Maxham, J. G. and R. G. Netemeyer (2002), "A longitudinal study of complaining customers' evaluations of multiple service failures and recovery efforts", *Journal of Marketing*, Vol. 66, N°4, pp. 57-71.

- Mccoll-Kennedy, J. R.; C. S. Daus and B. A. Sparks (2003), "The Role of Gender in Reactions to Service Failure and Recovery", *Journal of Service Research*, Vol. 6, N°1, pp. 66-82.
- Mccollough, M. A. (2000), "The Effect of Perceived Justice and Attributions Regarding Service Failure and Recovery on Post-Recovery Customer Satisfaction and Service Quality Attitudes", *Journal of Hospitality & Tourism Research*, Vol. 24, N°4, pp. 423-447.
- Mccollough, M. A.; L. L. Berry and M. S. Yadav (2000), "An Empirical Investigation of Customer Satisfaction After Service Failure and Recovery", *Journal of Service Research*, Vol. 3, N°2, pp. 121-137.
- Mcdougall, G. H. G. and T. J. Levesque (1999), "Waiting for service: the effectiveness of recovery strategies", *International Journal of Contemporary Hospitality Management*, Vol. 11, N°1, pp. 6-15.
- Michel, S. (2001), "Analyzing service failures and recoveries: a process approach", *International Journal of Service Industry Management*, Vol. 12, N°1, pp. 20-33.
- Michel, S. and M. L. Meuter (2008), "The service recovery paradox: true but overrated?", *International Journal of Service Industry Management*, Vol. 19, N°3-4, pp. 441-457.
- Miller, J. L.; C. W. Craighead and K. R. Karwan (2000), "Service recovery: a framework and empirical investigation", *Journal of Operations Management*, Vol. 18, N°4, pp. 387-400.
- Mittal, V. and W. Kamakura (2001), "Satisfaction, repurchase intent and repurchase behaviour: investigating the moderating effect of customer characteristics", *Journal of Marketing Research*, Vol. 38, pp. 131-142.
- Mostafa, R.; C. Lages and M. Sääksjärvi (2014), "The CURE scale: a multidimensional measure of service recovery strategy", *Journal of Services Marketing*, Vol. 28, N°4, pp. 300-310.
- Ok, C.; K. J. Back and C. W. Shanklin (2005), "Modeling Roles of Service Recovery Strategy: A Relationship-Focused View", *Journal of Hospitality & Tourism Research*, Vol. 29, N°4, pp. 484-507.

- Ok, C. Y.; K. J. Back and C. W. Shanklin (2007), "Mixed findings on the service recovery paradox", *Service Industries Journal*, Vol. 27, N°6, pp. 671-686.
- Oliver, R. L. and J. E. Swan (1989), "Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach", *Journal of Marketing*, Vol. 53, N°April, pp. 21-35.
- Palmer, A.; R. Beggs and C. Keown-McMullan (2000), "Equity and repurchase intention following service failure", *Journal of Services Marketing*, Vol. 14, N°6, pp. 513-528.
- Patterson, P. G.; E. Cowley and K. Prasongsukarn (2006), "Service failure recovery: The moderating impact of individual-level cultural value orientation on perceptions of justice", *International Journal of Research in Marketing*, Vol. 23, N°3, pp. 263-277.
- Prensky, M. (2001), "Digital natives, digital immigrants part 1", *On the horizon*, Vol. 9, N°5, pp. 1-6.
- Priluck, R. and V. Lala (2009), "The impact of the recovery paradox on retailer-customer relationships", *Managing Service Quality*, Vol. 19, N°1, pp. 42-59.
- Río-Lanza, A. B.; R. Vázquez-Casielles and A. M. Díaz-Martín (2009), "Satisfaction with service recovery: Perceived justice and emotional responses", *Journal of Business Research*, Vol. 62, pp. 775-781.
- Roggeveen, A. L.; M. Tsiros and D. Grewal (2012), "Understanding the co-creation effect: when does collaborating with customers provide a lift to service recovery?", *Journal of the Academy of Marketing Science*, Vol. 40, N°6, pp. 771-790.
- Saunders, M.; P. Lewis and A. Thornhill (2009), *Research Methods for Business Students*, Harlow: FT Prentice Hall.
- Schminke, M.; J. Caldwell; M. L. Ambrose and S. R. McMahon (2014), "Better than ever? Employee reactions to ethical failures in organizations, and the ethical recovery paradox", *Organizational Behavior and Human Decision Processes*, Vol. 123, N°2, pp. 206-219.

- Schoefer, K. and A. Diamantopoulos (2009), "A Typology of Consumers' Emotional Response Styles during Service Recovery Encounters", *British Journal of Management*, Vol. 20, N°3, pp. 292-308.
- Seiders, K.; G. B. Voss; D. Grewal and A. L. Godfrey (2005), "Do satisfied customers buy more? Examining moderating influences in a retailing context", *Journal of Marketing*, Vol. 69, N°4, pp. 26-43.
- Seth, A.; K. Momaya and H. M. Gupta (2005), "An Exploratory Investigation Of Customer Loyalty And Retention In Cellular Mobile Communication", *Journal of Services Research*, Vol. Special Issue, N°December, pp. 173-185.
- Shapiro, T.; J. M. Nieman-Gonder; N. A. Andreoli and D. Trimarco-Beta (2006), "An experimental investigation of justice-based service recovery on customer satisfaction, loyalty, and word-of-mouth intentions", *Psychological Reports*, Vol. 99, N°3, pp. 864-878.
- Sharma, P.; I. Chen and S. Luk (2012), "Gender and age as moderators in the service evaluation process", *Journal of Services Marketing*, Vol. 26, N°2, pp. 102-114.
- Singh, J. (1988), "Consumer Complaint Intentions and Behavior: Definitional and Taxonomical Issues", *Journal of Marketing*, Vol. 52, pp. 93-107.
- Smith, A. K. and R. N. Bolton (1998), "An Experimental Investigation of Service Failure and Recovery: Paradox or Peril?", *Journal of Service Research*, Vol. 1, N°1, pp. 65-81.
- Smith, A. K.; R. N. Bolton and J. Wagner (1999), "A model of customer satisfaction with service encounters involving failure and recovery", *Journal of Marketing Research*, Vol. 36, N°3, pp. 356-372.
- Smith, E. (2008), *Using Secondary Data in Educational and Social Research*, New York: Open University Press.
- Soares, R. R.; J. F. Proença and P. K. Kannan. (2014), The Service Recovery Paradox in a Call-Center context: Compensation and Timeliness in Recovering Mobile Customers, *Proceedings 2014 IEEE 47th Hawaii International Conference on System Science*, Hawaii, USA, pp. 1306-1315.

- Soares, R. R. and J. F. Proença (2014), Service Recovery Paradox: customers' response to compensation, speed and apology, *Proceedings of the 5th International Research Symposium in Service Management*, Parnu, Estonia.
- Sohn, S. Y. and J. K. Lee (2008), "Competing risk model for mobile phone service", *Technological Forecasting & Social Change*, Vol. 75, pp. 1416-1422.
- Sousa, R. and C. A. Voss (2009), "The effects of service failures and recovery on customer loyalty in e-services An empirical investigation", *International Journal of Operations & Production Management*, Vol. 29, N°7-8, pp. 834-864.
- Sparks, B. A. and K. Mccoll, Jr. (2001), "Justice strategy options for increased customer satisfaction in a services recovery setting", *Journal of Business Research*, Vol. 54, N°3, pp. 209-218.
- Stewart, D. W. and M. A. Kamins (1993), *Secondary Research: Information Sources and Methods*, Newbury Park, CA: Sage.
- Tax, S. S. and S. W. Brown (1998), "Recovering and learning from service failure", *Sloan Management Review*, Vol. 40, N°1, pp. 75-88.
- Tax, S. S.; S. W. Brown and M. Chandrashekar (1998), "Customer evaluations of service complaint experiences: Implications for relationship marketing", *Journal of Marketing*, Vol. 62, N°2, pp. 60-76.
- Tronvoll, B. (2007), "Customer complaint behaviour from the perspective of the service-dominant logic of marketing", *Managing Service Quality*, Vol. 17, N°6, pp. 601-620.
- Vartanian, T. P. (2011), *Secondary Data Analysis*, New York: Oxford University Press.
- Volkov, M.; D. Harker and M. Harker (2005), "Who's complaining? Using MOSAIC to identify the profile of complainants", *Marketing Intelligence & Planning*, Vol. 23, N°3, pp. 296-312.
- Wang, K. Y.; L. C. Hsu and W. H. Chih (2014), "Retaining customers after service failure recoveries: a contingency model", *Managing Service Quality*, Vol. 24, N°4, pp. 318-338.

- Warland, R. H.; R. O. Herrmann and J. Willits (1975), "Dissatisfied Consumers: Who gets Upset and Who Takes Action", *Journal of Consumer Affairs*, Vol. 9, N°2, pp. 148-163.
- Weun, S.; S. E. Beatty and M. A. Jones (2004), "The impact of service failure severity on service recovery evaluations and post-recovery relationships", *Journal of Services Marketing*, Vol. 18, N°2, pp. 133-146.
- White, K. and D. W. Dahl (2006), "To Be or Not Be? The Influence of Dissociative Reference Groups on Consumer Preferences", *Journal of Consumer Psychology*, Vol. 16, N°4, pp. 404-414.
- Wirtz, J. and A. S. Mattila (2004), "Consumer responses to compensation, speed of recovery and apology after a service failure", *International Journal of Service Industry Management*, Vol. 15, N°2, pp. 150-166.
- Yoon, C.; C. A. Cole and M. P. Lee (2009), "Consumer decision making and aging: Current knowledge and future directions", *Journal of Consumer Psychology*, Vol. 19, N°1, pp. 2-16.
- Zeithaml, V. A.; L. L. Berry and A. Parasuraman (1993), "The Nature and Determinants of Customer Expectations of Service", *Journal of the Academy of Marketing Science*, Vol. 21, N°1, pp. 1-12.
- Zeithaml, V. A.; L. L. Berry and A. Parasuraman (1996), "The Behavioral Consequences of Service Quality", *Journal of Marketing*, Vol. 60, N°2, pp. 31-46.
- Zeithaml, V. A. and M. J. Bitner (1996), *Services Marketing*, New York: McGraw-Hill.
- Zhao, B. (2011), Service recovery paradox effect: Comparisons in two service industries, *Proceedings 2011 IEEE 2nd International Conference on Artificial Intelligence, Management Science and Electronic Commerce*, Zhengzhou, China, pp. 2390-2394.