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Multichannel service failure and recovery in a O2O era: A qualitative multi-method research in the banking services industry

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ABSTRACT

This article aims to investigate how service providers are employing their channels to support the handling of customer complaints in an online to offline era. It provides a timely contribution by characterizing multichannel recovery practices, discussing its implications for customers, and discovering new trends. The study employs a qualitative multi-method research, which includes not only more than one method of collecting data, but also more than one method of analyzing data. Data collection involved 50 records of customer complaints, 10 semi-structured interviews, direct observation and internal bank reports. The results suggest that multichannel customers are not willing to interact with a large number of channels to solve their problems leading to a high number of interactions. Customers expect a complex recovery not in terms of interactivity but in terms of depth. Recovery solutions, such as apologizing and monetary compensations are non-permanent solutions, are inefficient in the long term and imply financial losses. Despite the investment that is required, this investigation advocates for permanent solutions. To avoid service failures and complex recovery processes, it is possible that companies are improving their operations management in search of new strategies that are blurring the boundaries of O2O into a mix of offline and online channels (O2).

1. Introduction

The emergence of Internet and new technologies has changed the foundations of service interactions, as we have witnessed a strong growth of services provided through multiple channels (Sousa and Voss, 2006). Financial services have pioneered many of these advancements, when banks established the first automated teller machines (Dabholkar, 1996), followed by online and mobile banking (Hoehle et al., 2012; Proença and Rodrigues, 2011) where no personal contact is required between buyer and seller (Meuter et al., 2000). The use of multichannel strategies to reach customers is now the norm rather than the exception (Kim et al., 2005; Webb and Lambe, 2007). As the O2O (i.e., offline to online or online to offline) mode has gained popularity in recent years, an increasing number of single-channel retailers are transforming themselves into multichannel retailers (Wang et al., 2016). For instance, an increasing number of consumers search and book products/services online first, and, then, consume them in brick-and-mortar stores (Xiao and Dong, 2015). While companies are struggling to consistently maintain high service standards through all channels, service delivery systems are not foolproof, and, thus, service failures are inevitable (Hart et al., 1990). Managers have to focus on maintaining high standards of service delivery, but they must also be prepared to counteract service failures with effective service recovery processes (Shapiro and Nieman-Gonder, 2006). Service failure and recovery has been considerably studied in the last two decades. Despite the insights gained and the consensus reached, however, we still have a somewhat limited understanding of the topic (Holloway et al., 2009). When a service breaks down, there is a disconnection between customer expectations and reality; these breakdowns, or service failures, present a challenge to organizations, but also create an opportunity to interact with customers to restore customer satisfaction (Shapiro and Nieman-Gonder, 2006). Research suggests that customers are often more dissatisfied by an organization's inability to recover from a service failure than by the initial failure (Smith et al., 1999). While these studies have shed some light on the impact of customer reactions to service recovery encounters, there is no body of relevant studies in a multichannel context (Holloway et al., 2009). Therefore, organizations must be prepared to manage service failures and recovery to offset the negative

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impact of a breakdown (Zemke and Schaaf, 1989), specifically in a multichannel context where the recovery is more complex. For instance, Yang et al. (2015) argued that recovery activities are a core process of service operations, and frontline employees play an important role in performing such activities. Our research fully supports these remarks but we go further by showing that customers have a wide range of channels at their disposal, while they do not know entirely the channel recovery attributes. We evidence the importance of the O2O transition in the extent that it not only provides a personalized guidance to customers when they are searching for help with front-line employees, but, in some cases, it offers an immediate offline solution to their claims. Our article is also aligned with the service-dominant perspective (Vargo and Lusch, 2004), which is based on the idea that most contemporary production incorporates elements of service – *competing through service* (Lusch et al., 2007). We focus on service channel strategies, in particular, on competing through digital channels, which are changing the way production is performed. Production is now constantly being dematerialized and with a greater customer participation (Fitzgerald et al., 2014). This research therefore presents a timely contribution to fill this gap in the literature, setting up to explore how the different interaction banking channels can be employed to deal with a prominent type of customer service complaints in a O2O era.

2. Theoretical background

Multichannel services are often defined as services provided through multiple channels, including physical and/or virtual interfaces (Sousa and Voss, 2006). On this thread, Sousa and Voss (2006) distinguishes among two types of channels: a) Virtual channels, consisting of means of interaction using advanced telecommunications, information, and multimedia technologies (e.g. ATMs); and b) Physical channels, consisting of a means of communication with the customer employing a physical (bricks-and-mortar) infrastructure (e.g. warehouses) and resorting to customer-employee personal interactions. Froehle and Roth (2004) offered a classification for banking channels according to the type of customer interface: “face-to-face” or “face-to-screen”. In financial services companies, face-to-face contact, for example, occurs at the physical branches (Cortiñas et al., 2010). This taxonomy has led to a profusion of definitions for service delivery models; namely Sousa and Voss (2006, p. 357) defined virtual service (face-to-screen) as “the pure information component of a customer's service experience provided in an automated fashion through a given virtual channel” and physical service (face-to-face) “as the portion of a customer's service experience provided in a non-automated fashion, requiring some degree of human intervention, either through a virtual or physical channel”. The rest of this section provides an overview of the conceptualization of multichannel service delivery, and builds on literature on the management of service failure. It puts forward a framework for addressing failure and recovery in multichannel settings.

2.1. Understanding different channel strategies

The first step to delimit the multichannel concept is to understand the different channel strategies. The concepts of single-, multi-, cross- and omni-channel services are commonly overlapped in the literature (Picot-Coupey et al., 2016). Although some researchers are trying to make a distinction (Beck and Rygl, 2015; Bernon et al., 2016), the difficulty lies in the complexity and breadth of terms, from a single contact point to a brand experience. We revisit the literature, which addresses the move from single to omni-channel, by discussing part of the existing definitions. Thus, *single channel* is defined as a customer contact point (virtual or physical) where customers can gather information to purchase services or goods (Aradhana, 2016; Chiu et al., 2011; Hsieh et al., 2012). While there is a definition that has gathered some scholar approval for *multichannel*, i.e. service composed of components (physic and/or virtual), delivered through two or more channels (Sousa and Voss, 2006), the field of multichannel services still did not reach a consensus regarding the meaning of its core concept (Reis et al., 2014). *Cross-channel* is here defined as a set of integrated activities that involves a widespread of channels to offer accessible services or products in-store and on Internet, whereby the customer can trigger partial channel interaction and/or the banking service controls partial channel integration (Beck and Rygl, 2015; Jeanpert and Paché, 2016). *Omni-channel* provides a seamless, consistent and integrated shopping experience, which is unique to the consumer; it is a brand experience and interactions with consumers through disparate channels (Aradhana, 2016; Rigby, 2011; Verhoef et al., 2015). The conceptual boundaries of the terms multi- and cross-channel are blurred, but the multichannel term is considered by some authors as an umbrella term (Beck and Rygl, 2015). The cross-channel concept is specifically addressed to channels that can be partially triggered by customers and continued through another compatible channel(s) (Beck and Rygl, 2015) to purchase a service or product, but not for all channels widespread, which is defined as omni-channel. The omni-channel environment is putting more emphasis on the interplay between channels and brands (Verhoef et al., 2015), and it is also considered as an upgrade of the cross-channel (Gao and Yang, 2016). Although it is clear that some companies are now shifting to an omni-channel strategy (cf. Picot-Coupey et al., 2016), we decided to investigate multichannel services as they are more widespread.

2.2. Service failure/severity and recovery management

Service failure and recovery has been widely studied in the literature. For instance, Harrison-Walker (2012, p.115) defines failure as a “situation where a service provider does not meet customer expectations in terms of its service products or engages in service behaviors that customers evaluate as unsatisfactory”. Various types of service failures occur in the financial services. Based on the discussion in the service literature, service failures can be classified into three types: 1) *core service failures* usually refer to tangible outcomes that customers receive from the service (e.g. interest received from an investment). As such, core service failures fail to fulfill the basic service need (Yang and Mattila, 2012); 2) *interactional service failures* reflect intangible elements of the service (e.g. the attitude of the server). In other words, they involve the attitudes and behaviors of employees during face-to-face interaction with customers (Keaveney, 1995; Yang and Mattila, 2012), such as a server treating a customer impassively or impolitely (Kim and Jang, 2014); 3) *Process service failures* involve the manner in which the core service is delivered to the customer (Mohr and Bitner, 1995) (e.g. a slow service or incorrect order of delivery). A process failure occurs when the core service is delivered in a flawed or deficient manner (Smith et al., 1999). In turn, Meuter et al. (2000) identified: 1) *technology failures*, those failures that effectively prevent the customer from getting a service (e.g. ATM out of service); 2) *process failures*, those that occur at some point after an initiated interaction (e.g. customer not receiving an item requested at the ATM); 3) *poor design*, difficulties arising from technology design problems or service design problems; 4) *customer-driven failures* are those failures that occur as a result of a customer mistakes. Whereas service failure and recovery encounters are considered moments of truth in the relationship between service provider and customers (Grönroos, 1988), there is a lack of conceptual and empirical research. Service failures range in severity and its study seems appropriate for determining service recovery approaches.

Service failure severity refers to customer's perceived intensity of a service problem. The more intense or severe the service failure, the greater the customer's perceived loss (Weun et al., 2004). Hoffman et al. (1995) engaged on an assessment of the extent of failures occurring in restaurants suggesting that higher scores of severity scales are associated to less satisfied customers with the recovery process. Craighead et al. (2004) also corroborated these results when examining the relationship between severity and the success of the recovery.

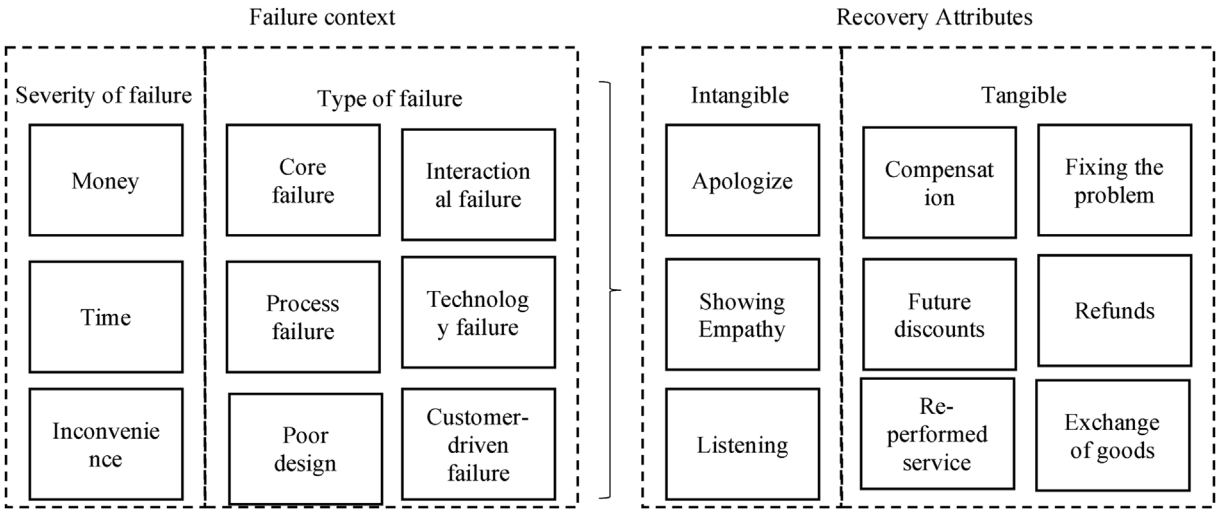

Fig. 1. Theoretical model for failure/recovery encounters (adapted from Mohr and Bitner, 1995; Keaveney, 1995; Meuter et al., 2000; Duffy et al., 2006; Shapiro and Nieman-Gonder, 2006; Yang and Mattila, 2012; Craighead et al., 2004; Roschk and Gelbrich, 2014; Bambauer-Sachse and Robeson, 2015).

Respondents expressed severity in terms of *money, time and inconvenience*. Roschk and Gelbrich (2014) highlighted that if customers have to wait to have a monetary loss ratified; they will remain upset and will not recommend the company to others. Likewise, complaining customers get angrier when they are ignored, regretting that their time is wasted and even sometimes they may have to fight to make themselves heard (Lovelock et al., 2007). Evidence suggests that it is more difficult for a company to overcome an individual's psychological costs, time lost and inconvenience when a problem/failure is severe (Weun et al., 2004). Several studies corroborate these findings. Doscher (2014) defines the construct of severity of a failure as the intensity of the damages for the customer caused by the failure situation. Craighead et al. (2004) define severity according to monetary and non-monetary (i.e. time, inconvenience) sacrifices resulting from the failure situation. Severe failures are expectedly more difficult to solve, and are likely to have stronger consequences for customer satisfaction and business outcomes (Keiningham et al., 2014).

Bitner et al. (1990) proposed a model for the classification of organizational responses to service failures that has been widely adopted by other researchers (Hoffman et al., 1995; Reynolds and Harris, 2005; Cassab and MacLachlan, 2009; Zhu et al., 2013). They distinguish: 1) *employee responses to service delivery system failures* as reactive responses from the provider following a customer complaint; 2) *employee responses to implicit/explicit customer requests* as providers' service adjustments following a request to meet customers' unique needs; 3) *unprompted and unsolicited employee actions* as events and employee behaviors that are truly unexpected from the customer's point of view. In the same line with Bitner et al. (1990) is Hart et al. (1990, p.148), who gives emphasis to the employees' actions by arguing that "the surest way to recover from service mishaps is for workers on the front line to identify and solve the customer's problem". Front-line workers have the advantage of being directly in contact with the customer and thus having a better understanding of the problem (Duffy et al., 2006). Bitner et al. (1990) triad did not consider the self-service technologies landscape and focused on the employee actions. Complaint management has been considered an important tool for managers to deal with failures, especially in the services sector (Matos et al., 2009), as recovery holds a significant impact on customers (Kau and Loh, 2006). Michel and Meuter (2008) state that 1) *complaint management* and 2) *service recovery* are based on service encounter failures. Complaint management is the firm's reaction to a customer complaint, whereas service recovery also addresses the firm's ability to react immediately to a failed service encounter, pleasing the customer before he or she finds it necessary to complain (see also Miller et al., 2000). Recovery refers to the corrective actions aimed at rectifying failed or inferior service performance (Bell and Zemke, 1987). Grönroos (1988, p.13) puts forward the following definition: "the service provider's action when something goes wrong". The service recovery literature identifies three types of service recovery (Zhu et al., 2013): 1) *recovery by the firm*; 2) *recovery by the customer*; and 3) *joint recovery by the firm and the customer* and has been divided into three phases: pre-recovery, immediate recovery and follow-up recovery (Schweikhart et al., 1993; Miller et al., 2000). This study focuses on the pre-recovery and immediate recovery phase, since, in multichannel services, customers may have difficulties to solve their problem in one channel or they may have difficulties to find the channel that has the attributes to recover from a specific failure. The outcome of an immediate recovery process can include offering tangible (e.g. refund) and/or intangible compensation (e.g. apologizing), with the potential of creating a positive customer attitude (Bambauer-Sachse and Rabeson, 2015). Roschk and Gelbrich (2014) proposed three categories for compensation: delayed or immediate monetary compensation (tangible), exchanged goods or re-performed service (tangible) and apologizing (intangible/psychological). Duffy et al. (2006) suggest similar recovery, including the following: showing empathy by listening to the complaint, apologizing, fair fixing the problem, and compensation, i.e. providing something extra in atonement. Moreover, Shapiro and Nieman-Gonder (2006) argue that a high service recovery effort involved listening to the customer, showing empathy, apologizing, resolving the problem, and offering refunds and future discounts.

When customer satisfaction is hurt by a service failure, subsequent service recovery reactions may include negative word-of-mouth behavior (Hocutt et al., 2006). Positive recommendations will occur when recovery is understood as satisfactory (Matos et al., 2009). Satisfaction with service recovery is defined as positive customer evaluations of the service recovery experience (Spreng et al., 1995; Bambauer-Sachse and Rabeson, 2015). Fig. 1 summarizes this section and represents a conceptual service failure/recovery model. The degree of success may depend on the type of service involved, the type of failure that occurred and the type of recovery (Komunda and Osarenkhoe, 2012). Research in the area has generally not investigated the impact of service failure on satisfaction and financial performance, including different categories of multichannel service failure and recovery, and so we can provide some contributions ahead.

2.3. O2O era in the banking industry

O2O (online-to-offline or offline-to-online) significantly extends the

scope of current e-Commerce activities (Li et al., 2016). O2O allows consumers to buy goods and services online and then get those goods and services offline (Zhang and Lee, 2015). For instance, at a Portuguese Bank, customers can now start an account opening process through the Internet at their mobile phone, tablet or laptop, while waiting for their turn to be served at the branch office. At the end, the customer has to close the process with a digital signature on the bank employee's iPad. What is new here is that the account opening process can be started online, but the bank requires that the process is closed at the branch office. Although there is a migration of the process to online platforms, customers are frequently required to end the service offline. The online-to-offline transition probably occurs due to factors such as e.g. face-to-face (conversation) (Zhang and Lee, 2015) and, consequently, might bring a positive outcome. The same might be happening with regard to multichannel service recovery, to the extent that customers when confronted with a high volume of channels opt for a face-to-face service that is more personalized and convenient for service failure situations. Although the O2O can encompasses both, offline and online, we will focus our study on the online-to-offline migration.

3. Research methodology

This article follows a qualitative multi-method research, an option that includes more than one method of collecting data and more than one method of analyzing data (Mills et al., 2010). This approach is suited to generate comprehensiveness and rich knowledge (Mills et al., 2010), which counterbalances with the weaknesses that are inherent to individual methods (Wood et al., 1999).

According to Mills et al. (2010), multi-method research is a research strategy based on qualitative techniques, quantitative techniques, or a mix of both. Qualitative techniques were used in this research since the topic is complex, and there was a need to search for patterns and interrelationships between concepts. They allowed the researchers to look through a wider lens than quantitative methods would allow to, since the latter are appropriate to research issues that are clearly defined and constrained by rigid limits (Voss et al., 2002).

We selected a multi-method research for several reasons. First, there is a level of agreement that this type of research is superior in comparison with single methods (Given, 2008; Seawright, 2016), as is less prone to errors or biased conclusions (Choi et al., 2016). Second, as Choi et al. (2016) remark, when properly adopted, multi-method research helps advance the field and make operations management (OM) research more scientifically sound, rigorous, and practically relevant. The same authors observe that a high proportion (50% in total) of award-winning OM best papers published in *Manufacturing & Service Operations Management* and *Management Science* are actually multi-method research papers. Also, Boyer and Swink (2008) reiterate arguments on the benefits of multi-method research, while they encourage the diversity in empirical approaches in OM. Third, it combines unique corroboration and complementarity advantages, which allow one method to support, enhance and elaborate the results of the other method. Building on the ideas of Choi et al. (2016), Table 1 provides an overview of the methods used in this research, being further explained in the next sections.

3.1. Systematic literature review

The first method consisted in conducting a systematic literature review. This choice is due that multichannel services are a relatively new area of study (Thorpe and Holt, 2008), but also because it is an explicit and reproducible method for identifying, evaluating and synthesizing the existent body of completed and recorded work produced by researchers (Fink, 2005). A systematic review is a valuable tool to discover key theories, concepts, ideas and debates around multichannel services (Hart, 1998) and service failure and recovery. Furthermore, when compared to other types of literature review, the systematic review allows a wider analysis of the literature and provides a greater level of confidence. For instance, we found the absence of scholarly articles that relate O2O with multichannel service failure and recovery. Therefore, this strengthened the arguments of article originality and authenticity, as this is the first article that refers to these themes. Finally, the systematic review assisted to build the theoretical background, contributing to avoid conceptual ambiguity. Indeed, as many authors (e.g. Beck and Rygl, 2015; Verhoef et al., 2015) argue that multichannel concepts are being used indistinctively in the literature and are commonly overlapped, other types of literature review might be unable to accurately distinguish different channel strategies. Overall, we argue, as others have (Fink, 2005), that a systematic review is the best option to identify, evaluate and synthesize the existent body of knowledge. Just after these conditions are met and the theoretical background is solid (i.e. clear concepts, the gaps and guidelines are found), we are in conditions to pursue an empirical research.

A truly comprehensive approach to produce a systematic literature review generally requires the use of more than one database (Reis et al., 2014). However, given that our priority is transparency and easy reproduction of results (Buchanan and Bryman, 2009), a single database was used, Scopus.com, one of the largest abstracts and citation databases of peer-review literature. The systematic literature review was divided in two independent searches, to obtain a wider span of results and to facilitate readers' comprehension of the filters applied. In March 16th, 2017, a search using the Scopus database found 105 documents, using several keywords: “multi-channel” or “multichannel” or “multiple channels”, and “service”, and “failure” in the title, abstract and keywords.

Using the same database, a second search was conducted and found 213 documents, using the keywords: “O2O” or “online to offline” or “offline to online” or “O2O” in the title, abstract and keywords.

To improve our review process and to justify why we chose a certain type of articles and not others, we applied several filters to exclude irrelevant papers and save time (Tables 2 and 3). We centered our focus on the subject areas of management, industrial engineering, and social sciences. To further restrict the selection process, we used peer-review articles and conference papers from journals and conference proceedings. Finally, to avoid wrong interpretations, the selected documents

Table 1
Multi-method approach to multichannel service failure and recovery in a O2O era.

Method	Sub-methods	The role played by each method	Relationships between the methods
Systematic Literature Review (qualitative)	Content analysis	Identify, evaluate and synthesize the existent body of completed and recorded work produced by researchers.	The systematic review was valuable to discover key theories, concepts, ideas and debates around multichannel services and service failure and recovery. It provided a truly comprehensive approach of the literature to provide paths to the case study research. It generates theoretical insights for the next phase.
Case study research (qualitative)	Single case study	Investigate the phenomenon in its real-world setting with contextual rich data, i.e., interviews, records, observation, documents. Generates new insights.	Supports the theoretical findings. The case study was conducted to empirically validate the theoretical insights for triangulation purposes, i.e. convergence, corroboration and correspondence of results from the different methods.

Table 2
Methodological approach: systematic literature review for "multichannel service failures and recovery".

Search for articles in Scopus database		
Criteria	Filters	Documents
Keyword	"Multi-channel" or "Multichannel" or "Channel mix" or "Multiple channels" and "Service" and "Failure" or "Recovery"	105
Restriction	Title, abstract, keywords	
Selection of articles		
Subject area	Engineering; Business, Management and Accounting; Social Sciences; Economics, Econometrics and Finances	61
Document type	Articles and Conference papers	49
Source type	Journals and Conference Proceedings	46
Language	English	44

Table 3
Methodological approach: systematic literature review for "offline and online channels" (O2O).

Search for articles in Scopus database		
Criteria	Filters	Documents
Keyword	"O2O" or "Online to offline" or "Offline to online"	274
Restriction	Title, abstract, keywords	
Selection of articles		
Subject area	Engineering; Business, Management and Accounting; Social Sciences; Economics, Econometrics and Finances	135
Document type	Articles and Conference papers	118
Source type	Journals and Conference Proceedings	109
Language	English	102

had to be written in English. In total, from 379 documents, we excluded 233, derived from the application of filters, and remained at the end, 146 articles. Compared with a traditional systematic literature review, we found few articles with regard to the multichannel service failure and recovery. This may indicate that this is a new and understudied area, in line with Thorpe and Holt (2008) arguments. However, although the number of articles is small, for two distinct Scopus searches, the systematic literature review is a method that allows representativeness, replicability and may provide us a truthful insight concerning the multichannel service failure and recovery in a O2O era. Building on the literature review, a case study was then conducted to empirically validate the theoretical insights for triangulation purposes, i.e. convergence, corroboration and correspondence of results from the different methods (Green et al., 1989).

3.2. Case study research

The second method consisted in conducting a case study research. This option is particularly suited to investigate a phenomenon in its natural setting, whose boundaries are unclear and technically difficult to define (Meredith, 1998; Yin, 2003). We used multiple sources of data collection, including, interviews, documental analysis and direct observations. The contextual rich data enhanced triangulation and corroboration (Barratt et al., 2011) as it prevented an exclusive reliance on a single data collection method. Once the concepts had been theoretically clarified through the systematic review, the case study enabled to acquire an in-depth and holistic understanding of multiple aspects of the phenomenon.

Building this research under multiple methods strengthened the findings. Our view is that case research which focuses on contemporaneous and complex phenomenon should be sustained upon rigorous and relevant literature. While the traditional review frequently lacks rigor (Tranfield et al., 2003), it would be sensible to support the case study with a systematic review. As Voss et al. (2002, p.216) points out, it is not an excuse to state that "this precise issue has not been studied before", without allocating all the available resources in order to deeply analyze and synthesize the existing body of knowledge.

3.3. Data collection

The study focused on a Portuguese private bank, given that the banking industry offers a rich setting for multichannel services (Sousa and Amorim, 2009). For confidentiality reasons, the study included a limited number of interviews and the number of participants selected for the interviews is justified by theoretical saturation. Saunders and Townsend (2016) consider saturation as a plausible justification for the number of participants, and comment that saturation is being considered the gold standard by some (Guest et al., 2006). We interviewed highly knowledgeable informants, who were able to view the phenomenon from different perspectives, as they were chosen according to different functional areas and different levels of responsibility within the bank's physical branch. The main purpose of these interviews was to complement complaint records from the customer ombudsman, as the bank employees were often hesitant when they were asked about private customer complaints. Once the respondents realized that the researchers had full access to the complaint records, they were more receptive to explain parts of the complaining processes. These records were obtained from the customer ombudsman, who is an independent entity acting as an intermediary agent in the context of conflicts emerging between customers and the bank. Complaints, sent to customer ombudsman, usually derive from customers' perception of a lack of responsiveness from the bank channels. Thus, the customer ombudsman mission is to provide proper follow-up to complaints, requests for information or suggestions. The study analyzed 50 records from the customers' interaction with the ombudsman, and a total of 10 semi-structured interviews with the bank employees, in order to seek corroboration and clarification. The interviews were conducted via face-to-face in the managers' offices and lasted about 45–90min. We conducted more interviews than initially estimated, as new themes emerged, and continued until saturation (Glasser and Strauss, 1967; Guest et al., 2006). Informal interviews also took place with front line staff up to director level, mainly during field observation. Observation, as a data collection method, involves systematic seeing and listening (Taylor-Powell and Steele, 1996) in order to enable learning and analytic interpretation (Saunders et al., 2009). During the visits and tours of the facilities it was possible to take field notes and observe operations first-hand. It was then possible to establish informal conversations that contributed to clarify data from the interviews. These field notes, mainly derived from the analysis of the real life phenomenon (tours and visits), and from informal interviews, were decisive for corroboration and clarification purposes. Internal documents had corroboration purposes and its origins mainly came from the official website and financial reports; those documents allowed establishing relations between several channels that were not previously taking in consideration. Although we have no intention to make a statistical generalization from this article, the range of services offered by banks tends to be similar across different service providers and countries, enhancing the theoretical generalizability of our findings (Sousa and Voss, 2009).

3.4. Data analysis

The interview data was coded twice. First, manually, the recorded interviews were transcribed verbatim, while we counted repeated words and cross-checked with field notes and informal conversations.

This method of analyzing data was accomplished using low tech material (e.g. pencil). In case of more than half a dozen interviews, which was the case, it is advisable to make use of a computer-assisted data analysis packages (Bloor and Wood, 2006; Halperin and Heath, 2012). Second, using NVivo 10, we combined audio-textual analysis of the interviews, field notes, bank reports, complaint records, site visits, and documentary evidence, which yielded 2193 pages. With the qualitative data analysis software (NVivo) it was possible to handle the large volume of data, as an interactive process of coding and categorizing (Bazeley, 2007), to identify consistent patterns and relationship between variables in a way of reducing data and making sense of them (Given, 2008). This process was conducted in four stages: first, building a hierarchy of categories and subcategories; second, associating excerpts from interviews with the categories and subcategories and adding new ones as necessary; third, identify emerging patterns and ideas; forth, revising the previous categories, making adjustments, until redundancies and contradictions were cleared and the results were easily interpreted. Similarly to other articles (Reis and Melão, 2012), we used multiple sources of evidence, including interviews, direct observation and documentary evidence to strengthen construct validity. To increase reliability, we used an interview protocol to ensure that all procedures were consistent. Additionally, participants were asked to review all the transcriptions, and through follow-up emails they provided additional data to improve the reliability of our interpretations.

4. Findings and discussion

This section provides a theoretical overview and its empirical validation from case observations. Data analysis and discussion includes statements collected from the case study research.

4.1. Systematic literature review

The O2O is growing steadily when compared with scientific studies published about multichannel service failures and recovery. According to our analysis and, after the filters were applied, we observed that in 2016 the Scopus database had 31 articles concerning the O2O and just 4 scientific articles about the multichannel service failure and recovery. As such, it may be relevant to understand how multichannel service failure and recovery are affecting the O2O. Moreover, the same comparison was performed between online-to-offline (39 articles) and offline-to-online (36 articles), showing that the results were balanced. We did not identify any article that would link O2O (online-to-offline) with multichannel service failure and recovery, which makes this article an exploratory study. Although service failure and recovery issues have been the focus of much research throughout the last two decades and during this time we have achieved considerable understanding (Holloway et al., 2009), this gap persists. We learn from the literature that retail businesses may promote their products online to induce offline sales. A key to leveraging this model is to attract consumer attention and stimulate their actions both online and offline, which may be achieved through information technology (Phang et al., 2014). Within the multichannel business, the dangers of an online service failure may reach further than previously considered, having significant negative impacts on customer perceptions about the company as a whole and resulting purchase intention in the offline channel (Piercy and Archer-Brown, 2014). Piercy and Archer-Brown (2014) have demonstrated that there are clear dangers for companies who operate Internet divisions in isolation, as customers do not only dislike poor service online but are prepared to cease consumption from the offline channel of the business after online service failure. Nevertheless, it is possible that companies that have seen greater integration between online and offline divisions look for a solution offline when faced with an online service failure. Indeed, this might be the case, since online retailers may have particular problems in resolving service problems (Forbes et al., 2005; Holloway and Beatty, 2003), and the offline presence can prove to be a valuable reassurance for customers' post-purchase service or support (Karjaluoto et al., 2002). We know that when a service breaks down, there is a disconnection between customer expectations and reality. Although these service failures present a challenge to organizations, they also create an opportunity to interact with customers and restore customer satisfaction (Shapiro and Nieman-Gonder, 2006).

4.2. Case study analysis

During the case study we observed that the bank employed different channels to interact with customers for queries and requests for the different services provided. Likewise, several channels were available to customers for addressing the bank in case of a multichannel service failure.

4.2.1. Key banking channels

The key channels employed for interactions concerning service failure and recovery involved: 1) *Bank mail*, the possibility of contact with the bank by electronic mail; 2) *Social Networks*, the possibility of posting questions and to interact with the bank via social network; 3) *Click to call*, is a virtual place that allowed customers to receive a contact from the bank, free of charge; 4) *Call center,* a physical facility offering customer interaction, by request (click to call) or by a customer call; 5) *Click to chat*, is a virtual service that allowed customers to interact with the bank using a chat box; 6) *Brick and mortar bank* (branch office), the possibility of face-to-face interaction in the physical facilities of the bank. In addition, the a) *Customer ombudsman*, is an independent entity which acts as intermediary agent in the context of a conflict between customers and the bank; b) *Customer service center* (CSC), was a service dedicated to recover the level of relationship, dealing specifically with areas related to online banking and the call center; c) *Committees*, were composed of business areas (e.g. retail bank, private banking) and support units' (e.g. bank steering operations) representatives intended to coordinate, align perspectives and support the board of directors to make management decisions. The call center was considered a direct channel because it is in direct contact with the customers. Another feature was the fact that the branch office could provide direct inputs to the committees.

4.2.2. Type of identified service failures

The analysis of the customers' complaints revealed that the most relevant service failures were connected to issues regarding bank fees (13 failures), bank charges (5 failures) and account closures (4 failures), about 1/3 of the sample, taking into account that we analyzed 50 multichannel service failures (see Fig. 2).

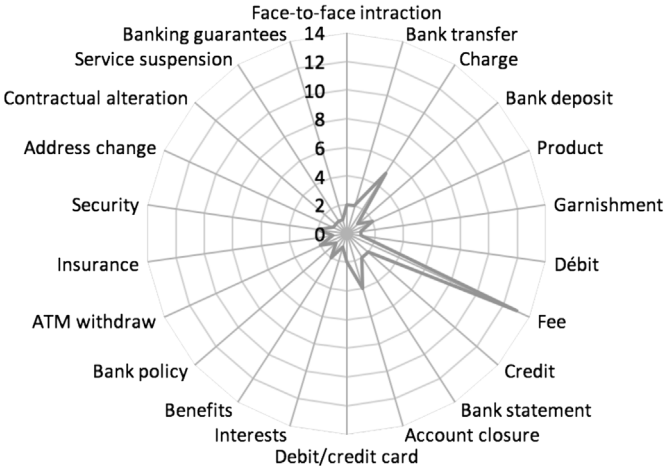

Fig. 2. Reported service failures (Customer ombudsman).

This analysis also showed that 82% of the claims were related to fees, brick and mortar services and ATM's. The most frequently reported service failure was derived from the automated services that charged fees disregarding the customer profile and what really motivated the complaint was not the automatic system but the fees applied. This kind of failure is identified in the literature as being initially motivated by a technological failure (cf. Meuter et al., 2000) and followed by a procedural failure (cf. Mohr and Bitner, 1995; Meuter et al., 2000). The most frequent contact point for customer complaints was the branch office and the call center.

4.2.3. Multichannel service failures and recovery management

In this section, we cross-examine the contributions of the interviews with the documented multichannel service failures and the bank recovery, under the lens of the literature review. We identified 4 main types of multichannel service failures. Concerning the *multichannel failure type 1*, customers are consecutively engaged with multiple interactions, across different channels and ultimately are conducted to deeper levels of decision that are finally able to handle the problem. The rationale for a low customer tolerance derives from the fact that when a failure requires superior organization involvement it is likely to be a severe incident, for which the organization would be expected to set up some shortcut for avoiding useless channel contact and a remittance to an appropriate decision level. A good example was a failure concerning an account closure, identified during the interviews. For this specific case, a customer assumed that her account was closed, after sending an e-mail to the bank. However, after not having received the bank answer, a notification of non-compliance was sent from the Bank of Portugal, concerning bank charges of the accounts that were supposedly ended. It required a high number of interactions with the bank, because it involved a third party and a high degree of depth to recovery. These multichannel service failures are considered critical as this requires a joint recovery by the firm and the customer (Zhu et al., 2013) to handle its complexity. With respect to *Multichannel failure type 2*, the customers were not satisfied with the number of interactions that were necessary to handle with a complaint, given that in the observed cases customers were dealing with service problems for which they expected the bank to have prompt actions (e.g. fees complaints). Failures that are perceived as common by customers are expected to have immediate actions. One of the most frequent failures were related to fees for account maintenance costs, normally charged by automatic bank services. A specific case was presented by a customer that acknowledged, at the online banking, an improper billing. This customer went to the bank agency to complain with the employee (face-to-face), skipping the technology click to call and/or click to chat, avoiding the customer recovery, cited by Zhu et al. (2013). Bitner et al. (1990) highlighted that employee response to service delivery system failures determine customer perceived satisfaction or dissatisfaction. Thus, many service organizations spend a substantial amount of time and effort training managers and front-line service employees in the art of service recovery (Smith and Bolton, 1998). A contact with the bank employee revealed that: unfortunately, the automatic system does not have the sensibility to adapt to each customer needs and requirements, but employees are used to deal with these situations; they normally apologize for the inconvenient and restore the service according to customer request. This type of compensations is in line with Roschk and Gelbrich (2014) and does not demand high-level decisions because, as Smith and Bolton (1998) mentioned, many of the front-line employees have enough training to recover these type of service failures. It is obvious that, concerning this case, customers are moving from online-to-offline recovery. Concerning the *multichannel failure type 3*, customers expressed a relatively acceptance towards the observed responsiveness of the provider in handling the recovery, i.e. customers understood that the service failure might require the involvement of deeper decision levels, and accept some number of interactions for the level to be reached. These failures are likely to be severe and often requiring customized actions (Collier and Meyer, 1998). Direct channels are not prepared to provide other than standard answers, for which a high level of decision-making is called to act (Haynes, 1990). For example, one of the interviewees reported the theft of his personal computer to the bank, which contained the passwords of the online banking and data concerning his credit cards. Therefore, he decided to head for a branch in order to cancel his cards and his online banking access but he was informed by the bank employee that he would have to call the customer service center because he was not the first holder of the bank account. For this reason, the customer filed a complaint, given that the branch was not able to solve his problem immediately. Interviews with the bank employees also showed that this procedure is usual, given that branches do not have the autonomy to respond to these requests when the customer is not the first holder account. Yet, the client was still satisfied that a higher level of hierarchy corresponded to his request and expectations. *Multichannel failure type 4* are less severe as the customer is faced with a low volume of interactions. In practical terms, this type of failures leads to immediate and standardized answers, related probably to high level of repeatability of the failures at stake, and the need to engage with a low level of decision-making for a quick recovery. A good example is a customer complaining about a debit card that had been held at an ATM. According to official documents, the card capture can happen for several causes and the system is prepared to communicate those causes to the user (e.g. PIN attempts exceeded). A bank employee explains that the card is normally retained for security reasons after exceeding the time available to remove it, also known as *time out*. The same employee mentioned that, in this case, the service recovery is easy, since there are standard procedures that enable the agency to return the card to the customer after some tasks are completed (e.g. customer identification). The customer, that claimed this failure, mentioned that her actions, as a self-service consumer, also motivated the problem. This is similarly identified by Meuter et al. (2000) as a customer-driven failure. Once again the customer had to ask for a recovery by the firm (Zhu et al., 2013), specifically an employee response to service delivery system failure (Bitner et al., 1990) that consubstantiates in an online-to-offline recovery. Table 4 resumes this section.

Customers expressed higher satisfaction when a severe service failure reached a high level of depth, but they are not willing to interact

Table 4
Multichannel service failure and recovery.

	Type	Description
Multichannel service failure and recovery	1	Customers consecutively engaged with multiple interactions and ultimately are conducted to deeper levels of decision able to handle the problem. It is likely to be severe incident and usually requires a joint recovery by the firm and the customer.
	2	Customers are engaged with multiple interactions, although the customers expect the bank should have prompt actions. Normally it requires an employee response trained to recover the service with intangible recoveries or non-permanent solutions.
	3	Customers observe responsiveness of the provider in handling the failure recovery, even if they have to interact more times with the bank they agree with it if the service failure is severe and require the involvement of deeper decision levels. These failures are likely to be severe and often require customized actions as direct channels are not prepared to provide a standard action.
	4	Customers are confronted with low volume of interactions and concomitantly low level of decision-making. Normally it requires an employee response trained to recover the service with intangible recoveries or non-permanent solutions.

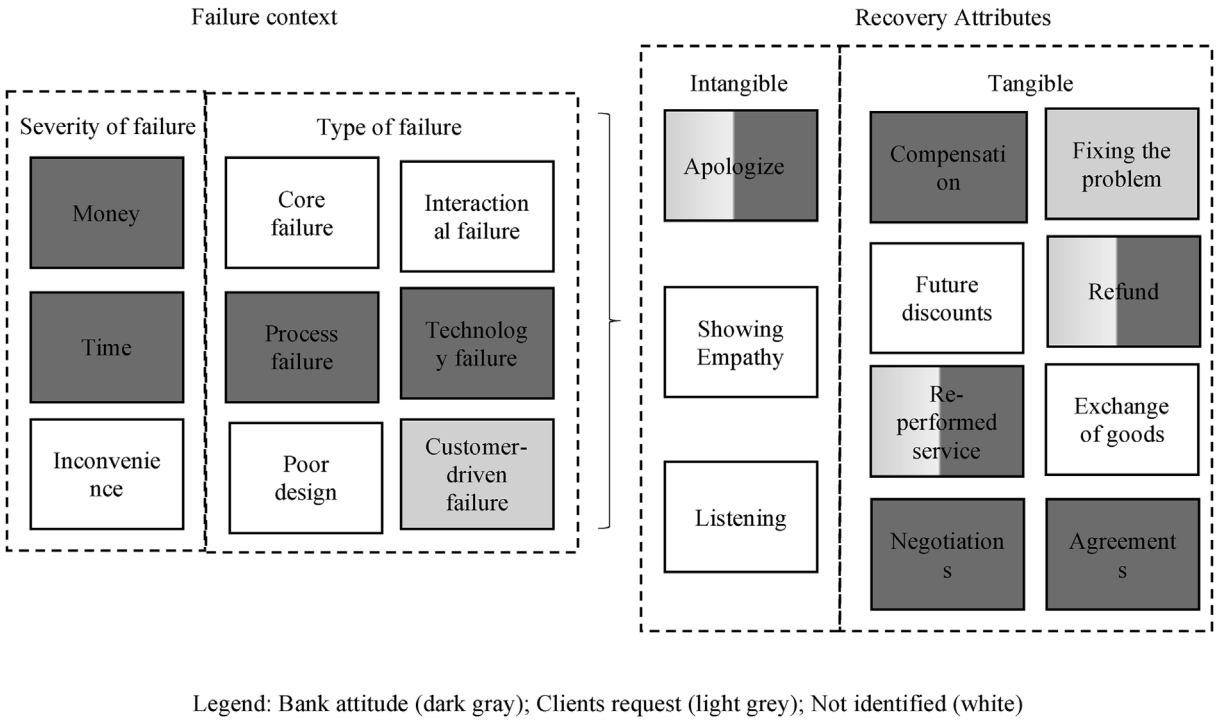

Fig. 3. Empirical model for multichannel failure/recovery encounters.

with a large number of channels to solve the service failure. The most severe failures involved economic loss as well as the time spent by the customers to make a solution available. These failures were frequently caused by technology or procedural failures. To a great extent, the recovery actions adopted by the bank to address service failure were aligned with the literature. Apologizing as an intangible compensation and the monetary compensation or refund (Roschk and Gelbrich, 2014) were two of the most used methods to generate a positive customer attitude (Bambauer-Sachse and Rabeson, 2015). Another popular method was negotiation and the establishment of agreements with customers. We found that successful solutions were those that reflect a greater flexibility (e.g. negotiation, agreements, apologize), on the other hand, those who have a greater negative impact are the solutions least flexible (e.g. involvement of external entities, bank rules). Tangible solutions were associated with the chargeback payment or re-performed service, used not only to derail the customer loss but also to save money, avoiding more complains to manage in the complaint system. At the same time, the intangible actions (e.g. apologize) worked as recovery strategies only viable in the short-term, as also proposed by Grönfeldt and Strother (2006). Evidence suggests that at the low level of recovery the responses should be programmed and, as the degree of complexity increases, the recovery should be partly programmed and proactive. Johnston and Fern (1999) studied banking customers' expectations and found that annoyed customers thought the bank should offer an apology and fix the problem while victimized customers expected compensation, greater responsiveness, an apology, intervention by higher level managers as well as explanations and assurance that the problem would not reoccur. Our research found that there is a need to shift the paradigm, to the extent that some companies focus on non-permanent solutions, that are inefficient in long term, and because it normally implies financial losses (e.g. chargeback payment) in order to retain customers. In order to improve the recovery and customer acceptance, banks should also reduce the number of interactions, during the failure recovery process, so as to optimize the operations management. The investment in operations management is supposed to improve processes and efficiency, augmenting customer satisfaction, needs and expectations. Despite these investments require specialized teams and costs to the banks, this type of recovery is permanent and increases the bank efficiency in the long term and the relationship between the firm and the customer is improved (Komunda and Osarenkhoe, 2012). This solution will allow banks to save money and to generate customer-switching resistance (N´ Goala, 2007) because, as Michel et al. (2009) argue, what seems to annoy customers after a failed service recovery is not that they were not satisfied but rather their belief that the system remains unchanged. In sum, customers normally request permanent solutions as fixing and/or re-performance of the service. Fig. 3 resumes this section.

We also observed that customers have a wide range of channels at their disposal. Because customers do not know entirely all channel recovery attributes, they frequently search answers to their problems randomly, without properly choose the channel that can provide them the best answer to recover from service failures. It is in this sense that O2O (online to offline) proves to be extremely important because not only provides a personalized guidance when customers search help from front-line employees, but also because, in some cases, customers can get from employees immediate solutions to their problems. On the other hand, when customers move from online to offline they end up losing the freedom that supposedly the multichannel services offer, that is, customers are forced to have to use channels (offline) that they apparently were not expecting to use. From all the analyzed records, we also verified that customers always used physical channels (human interaction) to ask the bank to recover from service failures. These physical channels were identified as the: 1) customer ombudsman, 2) customer service center and 3) front-line employees (branch office). This is not the same as arguing that customers have searched for offline channels (physical stores). Out of all the 50 registrations, 26 were direct contacts with the offline channels (physical store). The search for offline channels was transversal to the four types of multichannel service failures, but not exclusive to these channels. We found that often the front-line employees have directed the customers to the CSC (customer service center) when they were unable to resolve the service failure. This information was corroborated by the front-line employees and by

the internal documents of the bank, being a usual procedure. To avoid service failures and complex recovery processes, it is possible that companies are improving their operation management and even looking for new strategies blurring the boundaries of O2O into a mix of online and offline channels (O2) as: 1) companies are shifting to an omni-channel strategy, advocated by some researchers (Picot-Coupey et al., 2016); 2) companies are seeking new organizational synergies that allows services to encompass, simultaneously, a physical and virtual purchase, with a virtual payment to deliver a service to a customer (e.g. Apple Pay).

5. Conclusions

As shown in this paper, a qualitative multi-method research design is a suitable methodology to understand a phenomenon which is vague, fairly unexplored and that requires empirical clarification. The use of multiple methods enhanced the conceptual understanding of different channel strategies and advanced new insights of a real-life phenomenon. Our findings support those of Yang et al. (2015) in that it highlights the importance of recovery activities to service operations and front-line employees. Overall, it enriches the operations management literature by empirically validating the role of a O2O transition in a multichannel context, which was never studied before. Therefore, this study identified four main types of multichannel service failures. The results suggest that although customers have a wide range of channels at their disposal, they do not know entirely all channel recovery attributes and frequently search answers to their problems randomly. Without a proper channel, the O2O proves to be an extremely important transition, because not only provides a personalized guidance when customers search for help from front-line employees, but also because, in some cases, customers get from the offline channel an immediate solution for their problems. There are also disadvantages, as customers end up losing the freedom that supposedly the multichannel services offer when customers are forced to use offline channels. We also observed that customers are not willing to interact with a large number of channels, which leads to a high number of interactions, but they are willing to wait when a service failure requires a high level of decision-making. The degree of (dis)satisfaction may not be directly related to the type of failure severity, but it is clear that is related with the type of service recovery. It is important to distinguish the suitability of the recovery, in the sense that apologizing and monetary compensations or refund were the most used methods to generate positive customer attitudes. However, non-permanent solutions are inefficient in the long term because there is a need for a change of processes and most part of the tangible compensations implies financial losses. To avoid service failures and complex recovery processes it is possible that companies may be looking for new strategies, blurring the boundaries of O2O into a mix of online and offline channels as companies are shifting to an omni-channel strategy and/or seeking new organizational synergies that allows services to encompass simultaneously a physical and virtual purchase with a virtual payment to deliver a service to a customer. We instigate academics and practitioners to provide new contributions to this area since it represents a fertile opportunity for future research. Researching complaint management is far from being straightforward, as it involves dealing with confidential data, which usually brings some constraints to the research. These constraints are largely due to the data collection, related to the multichannel service recovery mapping, since not all the interactions between the bank employees are officially registered. With this contribution, we expect to prompt other researchers to provide their contributions to operations management and to develop knowledge in the multichannel and O2O area. Due to confidentiality reasons, we have not provided any information about key informants and the respective organization in this article.

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