



The effects of relationship length on customer profitability after a service recovery

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Abstract

Relationship length and its implications for service recovery have rarely been quantified in terms of cross-buying and customer profitability. Based on a sample of 935 customers in the retail banking sector, the current research provides two core contributions. First, the results reveal that change in cross-buying is a crucial mediator to capture how service recovery contributes to a change in customer profitability. Second, this research contributes to the ongoing debate regarding the role of relationship variables on customers' reactions to service recovery by investigating the moderating role of relationship length. From the use of archival data, the results show that when customers are dissatisfied with a recovery, a favorable protective effect arises, prompting an increased change in cross-buying. However, as the relationship gets longer, the positive effect of a successful service recovery on change in cross-buying keeps decreasing. The theoretical and managerial implications of these findings are discussed.

Keywords Relationship length · Cross-buying · Customer profitability · Service recovery · Transformational relationship events

1 Introduction

Service recovery is critically important to enhance customer experience and reduce customer defection (Homburg and Fürst 2005). However, recent evidence shows that

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managers continue to struggle to satisfy customers after a complaint. Indeed, firms' inability to handle complaints has been estimated to cost them around \$200 billion per year in the USA alone (Customer Care Measurement and Consulting 2017). In this context, customer satisfaction with a service recovery (i.e., customers' evaluations of how well a firm handles a problem) can be viewed as an important metric reflecting firms' relationship competence and performance. Past studies have mainly investigated the consequences of satisfaction with a service recovery (SSR) in terms of repurchase and word-of-mouth *intentions* (Gelbrich and Roschk 2011; Orsingher et al. 2010; Van Vaerenbergh et al. 2018), but there is still limited evidence about the effects of SSR on actual behaviors and financial outcomes (see Table 1 for prior studies).

A few studies have shown a positive impact of SSR on behaviors, such as purchase behaviors (Evanschitzky et al. 2011; Goudarzi et al. 2013; Larivière and Van den Poel 2005) and churn rate (Knox and Van Oest 2014), whereas only one article (Cambra-Fierro et al. 2015) finds that superior SSR leads to enhanced customer profitability (i.e., the difference between revenues from customers and the cost of serving them) under particular circumstances. While the use of an assortment of dependent variables generally leads to the intuitive finding that superior SSR produces better results, the sequence of variables leading to profitability has not been clearly specified. Our first contribution is to document this sequence because customer profitability is arguably the most important outcome for managers. The current research takes the extra step by investigating a sequence mediated by change in cross-buying (i.e., customers' purchase of services from multiple categories). We suggest that cross-buying is a core mediator explaining the effects of SSR on profitability (Reinartz and Kumar 2003) since cross-buying captures well the development level of a relationship (Kamakura et al. 2003). By doing so, we provide a more complete understanding of the process that makes complainers more profitable after a satisfying recovery. Briefly, we, first, contribute to the literature by demonstrating that change (over time) in cross-buying fully mediates the positive influence of SSR on change (over time) in customer profitability.

Furthermore, this literature indicates that customers can react differently to a firm's recovery depending on the relationship capital accumulated with the firm (e.g., Evanschitzky et al. 2011; Grégoire and Fisher 2006; Umashankar et al. 2017). However, we note that prior research focuses almost exclusively on perceptual relationship variables (e.g., relationship quality, social ties, or commitment), omitting the potential role of relationship length. This omission is surprising. Indeed, relationship length (i.e., the duration in years of a firm-customer relationship; Verhoef et al. 2001) is an important relationship variable to consider, as managers in many service industries (e.g., banks, insurance companies, internet service providers, and most contractual services) seek to develop *long-term relationships* over many years. Reflecting this concern, the notion of long-term relationships is central in many theoretical frameworks, such as service dominant logic (Vargo and Lusch 2016) and relationship marketing (Jap and Anderson 2007; Verhoef et al. 2001). Given this strong emphasis on longevity in practice and theory, our second contribution is to examine how relationship length—rather than perceptual relationship variables—moderates the effects of SSR on change in cross-buying.

Specifically, for our second contribution, we expect that relationship length will interact with SSR in predicting change in cross-buying. Building on the theory of transformation relational events (TRE; Harmeling et al. 2015), we argue that

Table 1 Comparison of existing studies with objective complainants' data

Research	Services context	Metrics		Longitudinal data	Moderating role of rational variables	Key highlights
		Cross-buying	Financial data			
Larivière and Van den Poel (2005)	Financial	No	No	Yes	No	not-show evidence of higher repeat-purchase behavior than the group of non-complainants.
Evanschitzky et al. (2011)	Fast-food restaurant	No	No	No	Yes	SSR positively affects customers' purchase volume in the 6 months that follow the complaint. However, this relationship becomes less strong when customers' level of affective commitment toward the firm is strong.
Goudarzi et al. (2013)	Grocery store	No	No	No	No	Quick response has a prominent role on explaining buying behavior after a complaint. However, in case of slow response, giving a coupon has even more detrimental effect on buying behavior.
Knox and van Oest (2014)	Internet and catalog retailer	No	No	Yes	No	Complaints are associated with stronger churn rate. However, service recovery helps into reducing it.
Cambra-Fierro et al. (2015)	Retail-banking	No	Yes	Yes	Yes	The effectiveness of three organizational responses to customer complaints (timeliness, compensation, and communications) in improving customer profitability when they are congruent with the types of losses experienced.
This study	Retail banking	Yes	Yes	Yes	Yes	Service recovery is a moment of truth as influences change in customer profitability, through its impact on change in cross-buying. However, long-term customers are less affected by service recovery.

relationship length can have different, reversed effects, depending on the level of SSR. After a dissatisfying (vs. satisfying) service recovery, customers with long relationships should exhibit a greater (vs. lesser) change in cross-buying than shorter relationship customers. Overall, these predictions contribute to the ongoing debate about the mixed effects of a relationship after a recovery (e.g., Grégoire and Fisher 2008) by highlighting the importance of relationship length.

2 Theoretical framework

Figure 1 depicts the conceptual model and research hypotheses.

2.1 Effects of SSR on change in cross-buying and change in customer profitability

The variable SSR has become an important metric in assessing the effectiveness of service recovery, as it strongly determines the future of a relationship (Homburg and Fürst 2005). Several meta-analyses provide evidence that SSR is associated with positive attitudes such as repurchase intents and positive word-of-mouth (Gelbrich and Roschk 2011; Orsingher et al. 2010; Van Vaerenbergh et al. 2018), but research that associates SSR with objective metrics is sparse (see Table 1). On the one hand, some studies associate SSR with purchase behaviors (Evanschitzky et al. 2011; Goudarzi et al. 2013; Larivière and Van den Poel 2005) and churn rate reduction (Knox and Van Oest 2014). On the other hand, Cambra-Fierro et al. (2015) show that a satisfying service recovery contributes to customers' profitability. However, no research conjointly informs about the behavioral and financial outcomes. More precisely, there is no sequential model about how service recovery turns into stronger profitability.

This research takes up this challenge by considering the mediating role of cross-buying. In long-lasting relationships, retention by itself is not sufficient to develop valuable relationships (Kamakura et al. 2003); the achievement of this goal depends on the number of services purchased by a given customer, meaning cross-buying (Verhoef et al. 2001). We expect that SSR will increase customers' change in cross-buying, as SSR enhances customers' confidence in the service provider (Maxham 2001), which drives cross-buying (Aurier and N'Goala 2010). Moreover, cross-buyers are generally associated with a higher contribution margin and are less costly to serve, which should increase customer profitability (Kumar et al. 2008; Verhoef et al. 2001). However, such a linkage is not automatic. Cross-

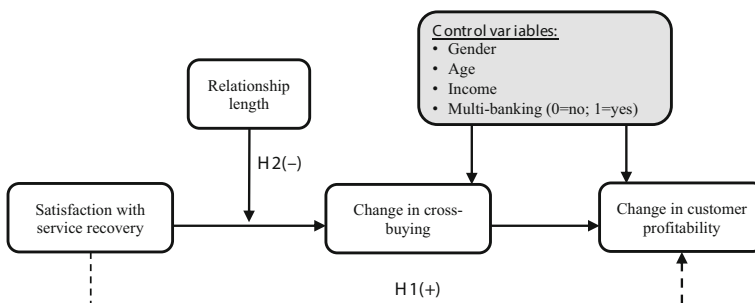


Fig. 1 Conceptual model

buyers could also be unprofitable for various reasons, such as making excessive demands, defaulting on loans, spending a small wallet share, or purchasing loss-leader services (e.g. Shah et al. 2012). Thus, there is a need to investigate empirically whether cross-buying is truly a core mediating variable that explains the effect of SSR on customer profitability. Formally:

H1. The positive influence of SSR on change (over time) in customers' profitability is mediated by change (over time) in cross-buying.

2.2 Moderating role of relationship length

Research supports the view that relationship variables influence customers' reactions to service recovery. However, there are contrasting results about the nature of their influence. On the one hand, some studies indicate that these variables protect firms from poor service recoveries, and this form of "love is blind" effect has received strong prior support (e.g., Grégoire and Fisher 2006; Umashankar et al. 2017). On the other hand, other studies support a "love becomes hate" effect, when relationship variables amplify customers' negative reactions after poor recoveries (Grégoire and Fisher 2008; Grégoire et al. 2009).

In addition, this literature has investigated the role of several perceptual relationship variables (e.g., social ties, relationship quality), but the effects of relationship length have received scant attention. This gap is especially detrimental, as a service relationship generally spans many years, in the light of managers' interest in developing long-term relationships (Jap and Anderson 2007; Verhoef et al. 2001). Given a general focus on relational longevity in services, we believe that it is important to examine the effects of relationship length in a service recovery context. This new moderator could also shed new light on the mixed effects of a prior relationship after a service failure.

Accordingly, we posit that relationship length moderates the path between SSR and change in cross-buying. According to TRE theory (Harmeling et al. 2015), service recoveries are turning points (positive or negative) with different implications, depending on the length of a relationship. If customers encounter a *dissatisfying service recovery*, relationship length should buffer their negative reactions, giving support to a form of "love is blind" effect. In shorter relationships, customers are less confident about the firm, and a poor recovery becomes a negative turning point that leads to a reduction of their cross-buying over time. As a relationship gets longer, customers build up important relational capital with the firm, which acts as a safety cushion against a dissatisfying recovery. As a result, their cross-buying remains unaffected over time by a poor recovery.

If a customer encounters a *satisfying service recovery*, TRE theory suggests that relationship length could decrease the positive impact of the service recovery on cross-buying change. In shorter relationships, customers have lower relational expectations, and a successful service recovery could exceed their expectations (Harmeling et al. 2015). This positive turning point for such customers could prompt a marked increase in their cross-buying over time. However, long-term customers have developed higher relationship expectations about the firm, and a satisfying service recovery may fall within their zone of tolerance. They expect such treatment, and as a result, they do not feel they need to reciprocate for the recovery, which results in less change in cross-buying (compared with shorter-term customers).

H2. Relationship length moderates the influence of SSR on change in cross-buying over time; after a dissatisfying (vs. satisfying) service recovery, customers with longer relationships are associated with a greater (vs. lesser) change in cross-buying, compared with customers with shorter relationships.

It should be noted that H2 is tested by accounting for a potential inertia effect occurring over time. An inertia effect suggests that long-term customers would be less likely to modify their buying behaviors over time because of habits or some form of resistance (Chintagunta 1998). According to the inertia explanation, older relationships would be progressively less sensitive to any service recovery (satisfying or dissatisfying). We took many measures—such as integrating relevant control variables and examining the nonlinear effect of relationship length—to account for the inertia effect. These measures are explained in the next sections.

3 Methodology and results

3.1 Data collection

To test our hypotheses, we obtained access to the survey and archival data of a French retail bank that sells a variety of financial products. We focused on individual customers who experienced a service failure related to using ATMs. Focusing on a specific service failure is a recommended approach, for it enables the researchers to keep relatively constant the characteristics (i.e., attributions, severity, and failure type) of a situation (Van Vaerenbergh et al. 2014). The sample comprises 935 customers (43.7% women; $M_{Age} = 50.55$ years, $SD = 14.05$).

Relationship length is the number of years between the complaint year (2016) and the year the customer opened an account in the bank ($M_{Length} = 23.57$ years; $SD = 13.87$ years). Overall, 52.8% had an account in a different bank (multi-banking). We also confirmed that none of these customers had formulated a complaint in 2015. Finally, we compared our sample with a large, representative sample collected for another project (30,023 participants). We found comparable means for cross-buying ($M_{failure} = 62.42 \approx M_{reference\ sample} = 61.78$; $p = .272$) and a small difference for relationship length ($M_{failure} = 23.57 \approx M_{reference\ sample} = 25.73$; $p < .001$; Cohen's $d = .145$). We focus on these two variables because they are central in our model and reflect the quality of a relationship. Although the difference in relationship length is significant (given the large size of the reference sample), its effect size is very small according to Cohen (1988). In both samples, the relationship duration is substantial (between 23 and 25 years), which is typical in the French banking system (Aurier and N'Goala 2010).

3.2 Measure operationalization

We collected the SSR score from a post-recovery questionnaire (time t_0) that we coupled with some transactional data (customer profitability and cross-buying) and socio-demographic variables (time t_0). To measure SSR, we used a single-item Likert scale, "I am satisfied with the way the company handled the situation," ranging from 0 ("not satisfied at all") to 10 ("entirely satisfied"; $M = 3.79$; $SD = 3.23$). This last item

has been regularly used in prior research working with real companies (e.g., Homburg and Fürst 2005). Cross-buying consists of a percentage score, ranging from 0 to 100% (Crosby et al. 1990) and indicates the extent to which a customer uses all the financial products of the bank (including loans, savings accounts, insurance, mortgages, and other services). These statistics were directly provided by the bank.

We calculated customer profitability with the following Eq. (1):

$$CP_i = \sum_{t=1}^{t=12} \left(\sum_{j=1}^{J_i} (p_{ijt} - c_{ijt}) - \sum_{k=1}^{K_i} mc_{ikt} \right), \quad (1)$$

where CP_i is the profitability of customer i to the firm, p_{ijt} is the price of purchase j made by customer i in period t (in months), c_{ijt} is the unit cost of purchase j made by customer i in period t , and mc_{ikt} is the variable marketing cost k , for customer i in period t .

To investigate the influence of SSR on changes in both cross-buying and customer profitability, we collected the data at two different times: December 2015 (1 month before the service failure: time t_{-1}) and June 2017 (after the recovery: time t_{+1}). This 1.5-year period is sufficient to observe customers' reactions to service recovery in contractual relationships (Knox and Van Oest 2014). We calculated the change (Δ) in customer profitability in June 2017 (t_{+1}) versus December 2015 (t_{-1}) (Profit $_{t_{-1}}$ = €710.46; Profit $_{t_{+1}}$ = €760.94; Δ Profit = €50.48, SD = €841.71). With a similar procedure, we also calculated change in cross-buying (cross-buying $_{t_{-1}}$ = 62.42%; Cross-buying $_{t_{+1}}$ = 59.02%; Δ Cross-buying = -3.40%, SD = 15.91). Table 2 shows the means and standard deviations for all the core constructs in the study, along with a correlation matrix.

In line with Verhoef et al. (2001), we assume that increasing or decreasing the number of services is the same decision process. Thus, change in cross-buying can be negative over the period, suggesting a customer's reduction in the use of services. Overall, 42 customers in the database quit the relationship at the end of the period (4.49%). Of the remaining customers at the end of the period, 256 increased their cross-buying (27.38%), 325 reduced it (34.76%), and 312 did not change their cross-buying (33.37%). The distribution of change in cross-buying is normal ($M = -3.40$; $SD = 15.91$; skewness = -0.766; kurtosis = 1.028) with a large variance. These statistics suggest that customers can progressively reduce or increase their cross-buying over time. It is not a "leave or stay" decision.

3.3 Results

To test our hypotheses, we used the PROCESS macro (Model 7) with 5000 bootstrapped samples, which tests moderated-mediation models (Table 3).

We found, first, that SSR has a positive effect on change in cross-buying ($\beta = 0.180$; $p < 0.01$), and, next, that change in cross-buying positively influences change in customer profitability ($\beta = 0.075$; $p < 0.01$). The direct effect of SSR on change in customer profitability is insignificant ($p > 0.05$), suggesting that change in cross-buying is a full mediator ($\beta_{\text{indirect_effect}} = 0.015$; [0.0101; 0.0235]). These results confirm H1. In terms of control variables, we find that customers' age ($\beta = -0.102$; $p < 0.01$) and income ($\beta = -0.087$; $p < 0.01$) negatively influence change in cross-buying, while the effect of multi-banking remains positive and significant ($\beta = 0.245$; $p < 0.01$).

Table 2 Means, standard deviations, and correlation matrix for key constructs

Variables	M	SD	1	2	3	4	5	6	7	8
1. SSR	3.79	3.23	1							
2. Change in cross-buying	-3.40	15.91	0.204*	1						
3. Change in customer profitability (€)	50.48	841.71	-0.003 ^{n.s.}	0.255*	1					
4. Relationship length (in years)	23.57	13.87	0.208*	0.129*	0.053 ^{n.s.}	1				
5. Gender (0 = male; 1 = female)	-	-	0.042 ^{n.s.}	0.003 ^{n.s.}	-0.047 ^{n.s.}	-0.059 ^{n.s.}	1			
6. Age (in years)	50.96	14.14	0.232*	0.049**	0.019 ^{n.s.}	0.570*	-0.101	1		
7. Incomes (in euros)	-	-	0.084*	0.079**	0.065**	0.263*	-0.096 ^{n.s.}	0.393*	1	
8. Multi-banking (0 = no; 1 = yes)	-	-	0.124*	0.211*	0.102*	0.225*	0.021 ^{n.s.}	0.159*	0.205*	1

* $p < 0.01$, ** $p < 0.05$; ^{n.s.}, not significant

Table 3 Results for the mediating and moderating effects

Paths	Standardized estimate (β)	SE (δ)	p value	Confidence intervals (bootstrap with 5000 sample replications)	
				LLCI	ULCI
Outcome: change in cross-buying ($R^2 = 15.66\%$)					
SSR	0.180	0.032	0.001	0.118	0.243
Relationship length	0.040	0.039	0.301	-0.036	0.116
SSR \times Relationship length	-0.163	0.032	0.001	-0.226	-0.099
Outcome: change in customer profitability ($R^2 = 6.75\%$)					
SSR	-0.018	0.010	0.092	-0.068	0.003
Change in cross-buying	0.075	0.010	0.001	0.054	0.095
Control variables					
Gender \rightarrow change in cross-buying	0.005	0.061	0.939	-0.116	0.125
Age \rightarrow change in cross-buying	-0.102	0.039	0.010	-0.179	-0.025
Income \rightarrow change in cross-buying	-0.087	0.032	0.006	-0.150	-0.025
Multi-banking \rightarrow change in cross-buying	0.245	0.024	0.001	0.197	0.292
Gender \rightarrow change in customer profitability	-0.025	0.020	0.198	-0.064	0.013
Age \rightarrow change in customer profitability	-0.001	0.011	0.937	-0.022	0.021
Income \rightarrow change in customer profitability	-0.012	0.009	0.180	-0.006	0.030
Multi-banking \rightarrow change in customer profitability	0.021	0.028	0.453	-0.034	0.076

Consistent with our second hypothesis, the results indicate that relationship length interacts with SSR to predict change in cross-buying ($\beta = -0.163$; $p < 0.01$). These results confirm H2. Furthermore, the direct effect of relationship length on change in cross-buying is not significant ($\beta = 0.040$; $p > 0.10$). Web Appendix 1 shows the interaction plot of SSR and relationship on change in cross-buying, revealing that in the case of dissatisfying (vs. satisfying) service recovery, change in cross-buying is lower (vs. higher) for shorter relationships (-1 SD) compared with longer relationships ($+1$ SD). We conducted a floodlight analysis with the Johnson-Neyman technique, which indicates the conditional effect of SSR on change in cross-buying for different relationship lengths. According to this technique, when the relationship length is less than 32 years (71.65%), the effect of SSR on change in cross-buying is significant and positive ($p < 0.05$). For relationships that have lasted 49 years or more, the conditional effect of SSR on change in cross-buying becomes negative ($p < 0.10$).

3.4 Post-hoc analyses about the potential roles of inertia and multi-banking

We conducted a series of analyses to examine the potential effects of inertia over time (see Web Appendix 2 for details). Since inertia should be characterized by low churn rate and low change in cross-buying over time, we investigated the linkage between relationship length and churn rate ($\chi^2 = 146.144$, $df = 9$; $p < 0.01$), and between relationship length and change in cross-buying ($r = -0.129$; $p < 0.01$). At first sight,

these effects provide some support for a potential inertia effect. As the duration of a relationship increases, the churn rate tends to decrease and there is a lesser variation in cross-buying. However, further analyses indicate that these effects are not robust. Indeed, when we exclude the first two deciles of relationship length (less than 9 years; mainly teenagers and young adults), the two prior linkages become non-significant (p 's > 0.23). This result indicates that churn rate and cross-buying are similar through time, after 9 years. We also note that for cross-buying, there is a substantial variance throughout all the deciles of relationship length, even for the longest relationships.

Second, we performed a series of analyses related to the role of multi-banking (a dummy variable that indicates whether customers do business with competitors or not). These analyses indicate [1] that multi-banking is an important control variable to consider when estimating the effects of inertia, and [2] that the moderating effects of relationship length depend on multi-banking. Details of the results and analyses are provided in Web Appendices 3, 4, and 5.

3.5 Ruling out the curvilinear effect of relationship length

Another explanation for the negative moderating role of relationship length might be that customers in old relationships have reached the capacity of their buying levels and have little incentive to change. This logic suggests that the effect of relationship length is not linear, and that it has diminishing effects at higher levels. Thus, we conducted a multi-step hierarchical regression analysis in order to examine the curvilinear-by-linear interaction between SSR and relationship length, using the following Eq. (2):

$$\begin{aligned} \text{Change in cross-buying} = & b_0 + b_1 \text{SSR} + b_2 \text{LENGTH} + b_3 \text{LENGTH}^2 \\ & + b_4 \text{SSR} \times \text{LENGTH} + b_5 \text{SSR} \times \text{LENGTH}^2 \\ & + b_6 \text{GENDER} + b_7 \text{AGE} + b_8 \text{INCOMES} + b_9 \text{MULTI} \end{aligned} \quad (2)$$

where *SSR* is satisfaction with the service recovery, *LENGTH* is the relationship length, and *MULTI* is the multi-banking status (see Web Appendix 3 for details). The results show that both the quadratic direct ($b_3 = -0.039$; $p > 0.10$) and multiplicative effects ($b_5 = 0.053$; $p > 0.10$) involving relationship length are not significant, and thus they do not significantly increase R^2 . Consistent with H2, the linear interaction between SSR and relationship length remains significant and negative ($b_4 = -0.141$; $p < 0.01$).

4 Discussion

Managers still face many difficulties in handling customers' complaints (Customer Care Measurement and Consulting 2017), and the literature informs these managers that they can improve customers' attitudes and intentions through a satisfying service recovery (e.g., Gelbrich and Roschk 2011). However, there is less evidence regarding the contribution of SSR on customers' actual behaviors (Knox and Van Oest 2014; Larivière and Van den Poel 2005). Moreover, only one research study investigates the contribution of service recovery in terms of customer profitability (Cambra-Fierro et al.

2015), but it does not capture the underlying behavioral mechanism at stake. The current research contributes first to the literature by investigating the effects of service recovery on *both* real behaviors and financial data, and by establishing a sequence among these variables. The results support the crucial role of change in cross-buying to capture how SSR influences customer profitability. Cross-buying is a key variable to consider in long-lasting relationships because retention by itself is not sufficient to develop profitable relationships. In the context of service recovery, our results show that the more customers are satisfied with a service recovery, the more they cross-buy in the following months, resulting in an increase of their profitability over time. Although cross-buying has not always been associated with stronger profitability (Shah et al. 2012), the current research shows that it is a core mediator for explaining the development of profitable relationships after a service recovery.

Second, we contribute to the service recovery literature by investigating the moderating role of relationship length after a service recovery. Many service relationships last over many years, making relationship length a key variable in varied marketing literatures (Jap and Anderson 2007). However, the effects of relationship length have rarely been examined in the context of service recovery. Building on the TRE theory (Harmeling et al. 2015), our results show a bright side and a dark side of relationship length. On the one hand, relationship length protects in case of poor service recovery, as change in cross-buying is higher for long-term customers compared with short-term ones (e.g., Grégoire and Fisher 2006). On the other hand, consistent with the TRE theory, our results confirm that relationship length has a dark side in the situation of a satisfying service recovery. A positive recovery has almost no effect on the cross-buying of long-time customers. Overall, these results lead to the conclusion that the longer customers are in a relationship, the less service recovery appears to be a “moment of truth” or a “turning point.” It seems like “business as usual” for such customers.

Moreover, post-hoc analyses suggest that relationship length has a lesser protective effect for multi-banking customers compared to one-bank customers (in the specific context of short and average length relationships). We speculate that service failures—in the context of short or average relationships—motivate multi-banking customers to do business with another bank, and that service recovery is less effective at reconquering them. In the case of customers with longer relationships, neither a satisfying recovery nor multi-banking have much effect on cross-buying change and profitability.

From a managerial perspective, we provide evidence that for long-lasting service relationships (e.g., banks, insurance companies, internet service providers) managers must consider relationship length when deciding how to deal with customers’ complaints. This practical, objective element is unlike other relationship variables (e.g., trust, commitment) that need to be measured through detailed questionnaires. Although managers should address every complaint, our results suggest that some recovery efforts represent important turning points—for younger relationships—that will change customers’ post-recovery behaviors in a more detrimental way. In particular, the more the recovery is at the beginning of the relationship, the more it represents a crucial turning point. We suggest that these customers ought to receive special attention at the recovery stage. In addition, this research includes cross-buying behavior as a consequence of SSR. In so doing, we reveal that the weeks that follow a satisfying service

recovery might be an appropriate time for managers to propose additional services and products to customers. That is, service recovery may be an appropriate context for managers to expand their relationships with customers, especially those in younger relationships.

5 Limitations and further research avenues

Several limitations of this study should drive continued research. First, we had recourse to a specific contractual service (i.e., the retail banking sector) because cross-buying and relationship length are central characteristics of relationships in such services. Also, contractual service firms generally possess high-quality databases that incorporate both behaviors and financial data, such as cross-buying and profitability over time. Although the results could be generalized to some extent to other contractual services and other contexts interested in developing long-lasting relationships (e.g., insurance, telecommunications, internet service providers), further research should investigate the role of relationship length in other service contexts, such as hospitality and tourism. Second, we investigated the effects of SSR on a 1.5-year observation period, analyzing a within subject variation. As some longitudinal field studies (e.g., Cambra-Fierro et al. 2015), we did not have the possibility to compare the changes in our sample with a control group (i.e., customers who did not face a service failure). Future research should consider using a between-subject design in order to better understand the effect of facing a service failure, versus not facing it, on customers' behaviors. Third, we collected only data related to a specific service failure (ATM dysfunction) to limit the possible confounding effects of service failure attribution. Further research might consider whether the effect of relationship length differs depending on the service failure context (failure stability, locus, firm's control over the failure) or the type of problem (outcome vs. process; monetary vs. non-monetary; reversible or not).

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