Regaining "Lost" Customers: The Predictive Power of First–Lifetime Behavior, the Reason for Defection, and the Nature of the Win–Back Offer

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Regaining "Lost" Customers: The Predictive Power of First-Lifetime Behavior, the Reason for Defection, and the Nature of the Win-Back Offer

Service firms, which have high attrition rates, are finding it exceedingly difficult to grow their customer base. Despite their extensive retention efforts, customers still defect. For these firms, "lost" customers may pose a rewarding "last-resort" opportunity. Reacquiring customers who left the firm may help these firms not only regain their lost profits but also usurp profits from competitors. However, some pertinent questions remain as to whether lost customers are worth the investment in reacquisition and whether they will remain profitable if reacquired. This is the first study to empirically demonstrate how (1) the lost customers' first-lifetime experiences and behaviors, (2) the reason for defection, and (3) the nature of the win-back offer made to lost customers are all related to the likelihood of their reacquisition, their second-lifetime duration, and their second-lifetime profitability per month. The study shows that the stronger the first-lifetime relationship with the firm, the more likely a customer is to accept the win-back offer. This study also presents relevant implications for managers interested in identifying new avenues for growth through effective resource allocation on the reacquisition and management of lost customers. Finally, the authors outline if and when managers should choose between maximizing reacquisition and profitability.

Keywords: customer reacquisition, defection reason, win-back offer, second-lifetime duration, second-lifetime profitability

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I nitiatives geared toward winning back customers who formally defected from a firm have been gaining momentum. For example, Time Warner recently spent more than $50 million on broadcast, print, online, and direct mail for a marketing campaign that specifically targeted ex-subscribers who had left for competitors, especially those who left for Verizon (Stelter 2013). Travelocity has been recognized for a successful win-back campaign in which lost customers were made to feel valued and part of an exclusive group of Travelocity customers, resulting in a 100% gain in return on investment compared with previous campaigns (Trivunovik 2011). AT&T and Sprint have also been noted for employing win-back promotions to reacquire defected customers (Thomas, Blattberg, and Fox 2004). Griffin and Lowenstein (2001) argue that retention efforts cannot be foolproof; thus, win-back initiatives are increasingly popular in competitive industries.

The increasing interest in win-back programs may be explained by the generally accepted notion that acquiring new customers is more expensive than retaining existing customers (Stauss and Friege 1999). This makes the emphasis on retention strategies all the more important, but it is inevitable that some customers will still choose to defect. A marketing executive from a major subscription-based firm states, "In any subscriber industry, businesses are focused on providing the best products and service experiences to retain customers. Despite all efforts, there are always customers who decide to leave. While we always strive to improve retention and customer satisfaction, the reality is that there will always be customers who choose to leave for various reasons. Active win-back initiatives give us a second chance at these relationships" (personal interview).

Existing literature helps explain this reality in the business world. Retention efforts typically focus on managing customer satisfaction; yet customer satisfaction is a weak predictor of customer defection (Capraro, Broniarczyk, and

Srivastava 2003). Indeed, in their study of the telecommunications industry, Gustafsson, Johnson, and Roos (2005) find that critical incidents that signify deterioration in the relationship with the firm do not significantly predict customer churn. Although a wealth of literature continues to contribute to the important topic of retention (i.e., Knox and Van Oest 2014), the fact remains that firms are now also turning to a previously overlooked pool of customers to grow and maintain their customer base: lost customers (Griffin and Lowenstein 2001). Firms are realizing that they have valuable information about these lost customers and, rather than treating them as new customers, they should leverage data from their first lifetime to reacquire them. This reacquisition of lost customers has been termed "customer win-back," and companies are now dedicating more resources to it (Griffin and Lowenstein 2001). Indeed, the Institute for the Study of Business Markets emphasizes customer win-back as its top analytic priority in business-to-business marketing.

Given that firms are allocating resources to customer win-back programs, the efficacy of win-back initiatives requires further study. Firms may unnecessarily waste time and resources reacquiring customers who are unlikely to return to the firm in the first place. Even more problematically, firms may reacquire unprofitable customers or spend too many resources on winning back customers who will defect again very quickly. Given that firms have limited resources, they should aim to optimally allocate their resources to win back the best customers. In doing so, they are faced with three main questions. First, how likely is the customer to return to the firm? Second, if the customer returns, how long will (s)he stay? Third, how profitable will this customer be each month?[1] Customers may be apt to come back and spend on a high-revenue monthly plan, but if they are likely to switch again, the firm may prefer to expend resources on customers who subscribe to a lower-priced plan but stay longer with the firm. Specifically, we argue that first-lifetime service experiences and behaviors (i.e., complaints, service recoveries, and referrals) may be indicative of the likelihood that a customer will return to the firm. Furthermore, the existing literature (i.e., Stauss and Friege 1999; Tokman, Davis, and Lemon 2007) has proposed that the reason for a customer's defection can also foretell the likelihood of a customer accepting a win-back offer. Finally, the contents of the win-back offer itself should also affect the likelihood of a customer returning to the firm. We argue that the reason for defection and the win-back offer are also indicative of how long customers will stay with the firm after reacquisition and how much they will be willing to spend each month for subscription services. Whereas existing articles have tended to focus on one aspect of customer win-back, such as switch-back intentions (i.e., Tokman, Davis, and Lemon 2007), we believe all three aspects of customer win-back should be studied together to help managers make better-informed

decisions. To bridge this gap in the literature, this is the first study to empirically test the relationship between customers' first-lifetime service experiences and behaviors, reason for defection, and the type of win-back offer and their likelihood of reacquisition, second-lifetime duration, and second-lifetime profitability.

We address managerially relevant questions about whom to target with win-back offers and how to encourage profitable second-lifetime behavior. We aim to shed light on customer win-back by conducting what is, to the best of our knowledge, the first comprehensive study on the topic by using individual-level transaction data as well as survey data regarding the reason for defection from a major telecommunications service provider in the United States. The findings from our study are intended to help managers better identify the specific lost customers worth targeting and the most effective type of resources for implementing reacquisition efforts. It is important to note that this study is meant to help managers who already have an existing pool of defected customers and simply want to regain their lost business efficiently. While we acknowledge that studying customers and preventing them from churning are certainly ideal endeavors (e.g., Bolton 1998; Bolton and Lemon 1999; Bolton, Lemon, and Bramlett 2006; Neslin et al. 2006; Lemon, White, and Winer 2002), our aim is to help managers optimally win back the business of customers who have already defected. The scope of this study is to understand whether a firm should chase a lost customer. Thus, we do not predict churn and win-back behavior simultaneously. We do, however, account for churn by investigating the impact of the reason for defection on reacquisition and second-lifetime duration and profitability. Specifically, we address the following research questions that emerge with respect to reacquiring lost customers:

1. How are specific first-lifetime service experiences and behaviors related to the probability of reacquisition for individual customers?
2. How are customers' reasons for defection related to the probability of their reacquisition and the duration and profitability of their second lifetime?
3. How should the firm choose the right win-back offer to make to a customer on the basis of his or her reason for defection?

We jointly estimate a statistical model that accounts for both selectivity and censoring to model customer reacquisition, second-lifetime duration, and second-lifetime profitability per month. We use a probit model to estimate the reacquisition process, a right-censored Tobit model to estimate second lifetime duration, and a regression model to estimate second-lifetime profitability per month. Most importantly, our results show that customers can be profitable in their second lifetimes and that customer win-back initiatives are worth further study. This is one of the few studies that empirically demonstrates that win-back initiatives can be a useful last-resort strategy, particularly in highly competitive service industries. By providing empirical evidence that reacquired customers can be profitable, we aim to shed light on an underresearched topic. The results also indicate that for the most part, the more positive

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[1]Hereinafter, "second-lifetime profitability" refers to how profitable a customer is per month in his or her second lifetime with the firm.

the customers' experience with the firm in their first lifetime (controlling for why they left and the win-back offer received), the more likely they are to return to the firm. For example, the more a customer recommends the firm to others, the greater his or her likelihood of reacquisition. Conversely, negative interactions with the firm in the first lifetime (customer complaints) lower the likelihood of a customer accepting a win-back offer.

This is the first study to examine specific first-lifetime experiences and behaviors and investigate their impact on the likelihood of reacquisition. We believe that specific first-lifetime experiences and behaviors provide deeper insights into the quality of the first-lifetime relationship than simply the length of that relationship (Thomas, Blattberg, and Fox [2004] account for first-lifetime tenure) and play a crucial role in predicting whether a customer is likely to return. This is also the first study to empirically demonstrate the role of the reason for defection with real-world data. Although existing literature has emphasized the importance of understanding the role of the reason for defection when studying customer win-back (i.e., Stauss and Friege 1999; Tokman, Davis, and Lemon 2007), this topic has not been studied with real-world data. We find that the reason for defection has implications for the likelihood of a customer returning to the firm, in that customers who terminated their relationship for service-related reasons were less likely to return than customers who left for price-related reasons. Furthermore, the reason for defection has implications for how long customers will stay and how much customers will spend in their second lifetimes. These findings are important to managers when choosing which lost customers they want to reacquire. Whereas Thomas, Blattberg, and Fox (2004) examine how to price the win-back offer, we examine an additional option firms can utilize when issuing win-back offers: service upgrades. Service upgrades give firms a viable option to reacquire customers without resorting to strategies that ultimately lead to lower revenue. We show how the type of win-back offer (price based, service based, or bundled) is related to the likelihood of reacquisition and second-lifetime behaviors. This study contributes to the literature by

1. Providing further empirical evidence that defected customers can be profitable in their second lifetime and thus showing support for the notion that win-back initiatives should be part of any comprehensive customer relationship management program as a last resort after extensive retention efforts;
2. Being the first study to empirically demonstrate the impact of a customer's defection reasons on his or her second-lifetime behavior;
3. Using real-world individual customer–level data to uncover the relationships between first-lifetime behavior, the reason for defection, the contents of the win-back offer, the likelihood of reacquisition, and second-lifetime duration and profitability;
4. Showing when to focus on strategies that maximize customer reacquisition versus those that maximize second-lifetime duration or profitability.

In highly competitive industries, customer win-back can potentially be a fruitful last-resort strategy. We strongly believe that this is an underresearched area and would like to bring more attention to the topic. Because we study all three components of customers' second-lifetime value (likelihood of reacquisition, second-lifetime duration, and second-lifetime profitability), account for the reason for defection, and allow the win-back offer to vary in terms of price discounts and service upgrades, we gain insights for managers in terms of which lost customers they should focus on reacquiring and how to reacquire them on the basis of how they are predicted to behave.

The rest of the article is structured as follows. First, we review the existing literature on customer win-back. Then, we present our hypotheses regarding how first-lifetime customer service experiences and transaction behaviors, reason for defection, and the win-back offer are related to customer reacquisition and second-lifetime duration. We follow the hypotheses with an empirical examination to test the proposed hypotheses. We conduct a simulation to help managers understand how matching customers (on the basis of their reason for defection) with the right win-back offers affects the probability of reacquisition and the duration and profitability of the second lifetime. Finally, we discuss the implications of our findings for managers and discuss the limitations of our study and worthwhile avenues for research.

Literature Review

Although customer relationship management has predominantly focused on acquisition and retention, Stauss and Friege (1999, p. 348, emphasis in original) first identified customer win-back as a potentially fruitful customer management strategy and defined it as "a *customer regaining strategy* that aims at *rebuilding the relationship with customers* who explicitly quit the business relationship." Although the authors argue that customer relationship management should devote more effort to developing customer win-back strategies, they do not empirically examine customer win-back. There are only a handful of studies of this nature, and we present their contributions in Table 1.

First, with the exception of Thomas, Blattberg, and Fox (2004), the existing research on customer win-back has used attitudinal data as opposed to individual transaction data. For example, Homburg, Hoyer, and Stock (2007) find that customer perceptions of fairness regarding the win-back offer are positively related to their reacquisition. One of a firm's largest assets with respect to developing customer win-back strategies is the readily available individual-level behavioral data from the first lifetime that can be used to profile and successfully reacquire potentially profitable customers. Homburg, Hoyer, and Stock do test the relationship between customers' first-lifetime satisfaction and their reacquisition, but they do so with survey data. Although their finding that the health of the first-lifetime relationship is positively related to the likelihood of reacquisition is important, they do not identify the relationships between the first-lifetime behavior and the likelihood of reacquisition. We combine readily available behavioral and survey data regarding the reason for defection (collected at the time of defection) to test the relationships between specific first-

TABLE 1
Comparison of Existing Studies

Studies	Type of Data	Modeling the Likelihood of Reacquisition	Modeling the Second-Lifetime Duration	Modeling the Second-Lifetime Profitability per Month	Account for First-Lifetime Service Experiences and Transaction Behaviors	Account for Reason for Defection	Account for Nature of the Win-Back Offer	Conduct a Randomized Field Study to Identify Relevant Win-Back Offers
Stauss and Friege (1999)	Conceptual	No	No	No	No	No	No	No
Thomas, Blattberg, and Fox (2004)	Transaction	Yes	Yes	No	No[a]	No	Yes[b]	No
Tokman, Davis, and Lemon (2007)	Experimental	No	No	No	No	Yes	Yes	No
Homburg, Hoyer, and Stock (2007)	Survey	No	No	No	No	Yes	Yes	No
Bogomolova (2010)	Survey	No	No	No	No	Yes	No	No
The current study	Transaction, survey	Yes	Yes	Yes	Yes	Yes	Yes	Yes

[a]Although they did account for customers' first tenure, they did not account for service experiences such as service recovery, complaints, and so on.
[b]They only considered the win-back offer of price discount in their study.

lifetime service experiences and behaviors (complaints, service recoveries, and referral behavior), the reason for defection, the probability of reacquisition, and second-lifetime duration and profitability. We believe that the transaction data provide richer insights when combined with information regarding the reason for defection.

Thomas, Blattberg, and Fox (2004) are pioneers in that they use data from the newspaper industry to study two of the three components of customer second-lifetime value (customer reacquisition and second-lifetime duration), in contrast to most existing studies, which focus on just one aspect of customer win-back. For example, Homburg, Hoyer, and Stock (2007) examine revival activities, and Tokman, Davis, and Lemon (2007) focus on the switchback intentions of customers using a scenario-based experiment. Although Thomas, Blattberg, and Fox do study the probability of reacquisition and the duration of the second lifetime, their focus is primarily on the impact of the depth of the price discount on those two outcomes. They find that for the win-back offer to be effective, it should consist of low promotional prices; furthermore, successful reacquisition should be followed by price increases. However, they do not take into account three critical factors: the impact of first-lifetime service experiences, the reason for defection, and the possibility of a win-back promotion being unrelated to price discounts (e.g., a service upgrade–based win-back offer). These omissions are likely because Thomas, Blattberg, and Fox's study is in the context of the newspaper industry, in which service experiences are less of an issue for customers. However, in most service industries (e.g., telecommunications, gym memberships, utilities, streaming), the service experience is critical in forming customers' decisions. When service quality is important to customers, we argue that it is important to take into account their first-lifetime service experiences.

Whether a customer left for price- or service-related reasons is also critical to account for because it sheds light on what the customer values (savings or better service). Allowing the win-back offer to be nonprice based (service upgrades) provides insights that enable managers to explore reacquiring customers in more cost-effective ways. Price wars in competitive service industries have been a challenge for firms (Thomas, Blattberg, and Fox 2004). Offering service upgrades and bundled packages are real-world practices aimed to overcome this challenge. Researching the efficacy of service-based win-back offers helps give managers more options to successfully reacquire customers and encourage profitable behavior. We conduct a randomized field study that tests how various win-back offers influence all three components of second-lifetime value (likelihood of reacquisition, second-lifetime duration, and second-lifetime profitability). Our study offers managers important insights into how they can use non-price-based strategies to manage lost customers, which is important in highly competitive service-based industries. By accounting for these three critical factors while studying all three components of second-lifetime value, we differentiate our study and add to the literature on customer win-back.

Stauss and Friege (1999) argue that the reason for defection is important to account for when examining customer win-back. Defected customers vary in their reasons for defection, which, in turn, influence their evaluations of the brand after defection and can ultimately affect their likelihood of returning to the firm (Bogomolova 2010; Bogomolova and Romaniuk 2010). Tokman, Davis, and Lemon (2007) argue that customers leave for two general reasons: service- or price-related issues. Why customers left the business relationship can elucidate which type of win-back offer will most likely successfully reacquire them (Tokman, Davis, and Lemon 2007) and, more importantly, can suggest how they will behave when reacquired. Stauss and Friege (1999) suggest (but do not empirically test) that customers who left for price-related reasons may be price-sensitive customers who are likely to be lured away again by competitors.

While the existing studies have laid the foundation for understanding various aspects of customer win-back, we aim to study the topic comprehensively by using real-world transaction data. The focal firm also conducted a randomized field experiment to help us establish the causal effect of the nature of the win-back offer on customer reacquisition. We also conduct a simulation to shed light on how to match customers with win-back offers according to their reason for defection. The simulation shows not only the likelihood that customers will accept a win-back offer on the basis of their reason for defection but also their expected second-lifetime duration and profitability.

Conceptual Framework and Hypotheses

The first-lifetime service experiences and behavior consist of customer complaints, service recoveries, and referral

FIGURE 1
Customer Timeline
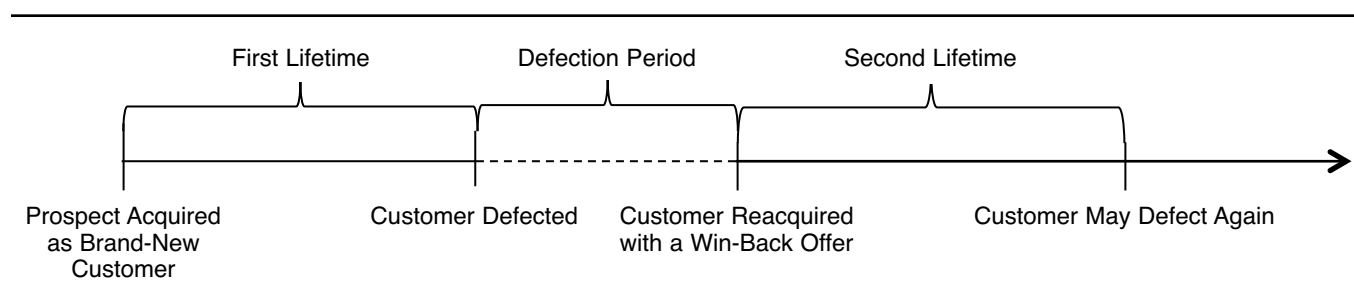
behavior before defection. When customers defect, their reason for leaving the firm is recorded (price-related, service-related, or both price- and service-related reasons for leaving). After a period of time, defected customers may be targeted with a one-time win-back offer (price based, service based, or price and service based). The contents of the win-back offer are randomly matched with the customers and are unrelated to the reason they left the firm. It is important to note that the focal firm is aware of its competitors' current prices and offers competitively priced win-back offers. If the customers accept the win-back offer, all behavior after reacquisition comprises their second lifetime with the firm. Figure 1 presents this timeline of a customer's relationship with the firm. We argue that the customer win-back process is analogous to a couple that has been separated and is in the process of reconciliation (whereby one partner is seeking the other). The strength of the marriage from the perspective of the sought-after partner, in terms of negative and positive experiences before the separation and the reason for the separation (indications of the sought-after partner's trust and commitment to the relationship), will influence him or her to trust the other to reconcile the marriage.

In the context of customer win-back, the first-lifetime experiences and behavior (complaints, service recoveries, and referral behavior) and the reason for defection will influence whether the lost customer will trust that the decision to return to the firm is a good one. The firm's extension of a win-back offer to the defected customer (a sign of the firm's trust and commitment to the lost customer) is analogous to the partner extending an apology to win back the other partner—the apology is a sign that the apologetic partner trusts that his or her spouse is worth the reconciliation and is willing to put forth efforts to make the reconciliation happen. The win-back offer should appease reservations the lost customer may have about trusting the firm again in the same way an apology should help the sought-after partner trust that the marriage is worth reconciliation. What the partner offers the other in terms of his or her apology typically affects the quality and length of the marriage after reconciliation—the better the apology, the better the marriage. Similarly, in the case of customer win-back, the contents of the win-back offer should affect the quality of the relationship in the second lifetime in terms of duration and profitability. Finally, the customer's trust and commitment in the first lifetime, in terms of his or her reason for defection, should also affect the quality of the second-lifetime relationship. If the customer was bought away by competitors—similar to a partner leaving the marriage for more attractive options (i.e., because of a lack of commitment)—and is then reacquired, (s)he may not behave favorably in the second lifetime.

Customer relationships are imperative to service firms, and whereas considerable attention has been paid to the role of trust and commitment in building and maintaining these relationships (i.e., Morgan and Hunt 1994), less attention has been paid to the role of trust and commitment in the revival of broken customer relationships. In their theory of commitment and trust, Morgan and Hunt (1994) argue that relationships cannot endure time without commitment, which they define as the belief that a relationship is worth the effort to maintain it. They also argue that trust is vital to successful customer relationships and define it as "existing when a party has confidence in an exchange partner's reliability and integrity" (p. 23). In the case of customer win-back, trust and commitment are lost, and the previous relationship is broken. The firm must restore trust and commitment in lost customers to reacquire and rebuild relationships with them. Furthermore, the firm should only expend efforts on lost customers that are worth those resources. So, in the customer win-back process, although it is the firm's responsibility to restore lost customers' trust and commitment to the firm, the firm should only do so for customers it trusts will return to the firm, be committed to stay long enough, and spend enough to recoup the costs of reacquisition. The findings of this study are meant to help firms choose which customers to focus on reacquiring on the basis of their expected second-lifetime behaviors.

Customers' level of trust and commitment with the firm in their first lifetimes will influence their likelihood to trust the firm again and return to it. We focus on two factors that reflect customers' trust and commitment: their first-lifetime service experiences and behaviors and the reason they defected. The more positive the first-lifetime experience, the higher the level of trust and commitment. Customers often defect despite positive experiences. We argue that customers with more positive experiences in the first lifetime are more likely to return to the firm. The reason for defection also indicates how committed customers were to the firm in the first lifetime (whether they were easily bought away by competition) and how likely they are to trust the firm again (whether they were dissatisfied with the service experience). Why these customers left the relationship should also provide insights into how committed they will be to the firm in the second lifetime in terms of second-lifetime duration and profitability. The firm's level of trust and commitment to customers, or what the firm offers them in the win-back offer, is also influential in customers' decision to return to the firm, how long they will stay, and how much they will spend if successfully reacquired. The content of the win-back offer is a sign that the firm is committed to winning the customers back and trusts that they are worth its investment and efforts. Although we control for the firm's marketing actions and the customers' demographic characteristics in the empirical model, we do not hypothesize their relationships. This process is depicted in Figure 2.

Morgan and Hunt (1994) explain that trust and risk are linked. One cannot believe that a person is trustworthy without assuming risk in deciding to trust him or her. Existing research has shown that switching service providers is inherently risky (Keaveney and Parthasarathy 2001) because there is uncertainty regarding whether the new service provider will perform at the same level or better than the original service provider (Zeithaml 1981). When customers are targeted with a win-back offer, they are faced with the decision of switching service providers again. This decision to switch back to the firm also involves an element of risk because they ended the business relationship for a reason,

FIGURE 2
Conceptual Framework of Hypothesized Relationships
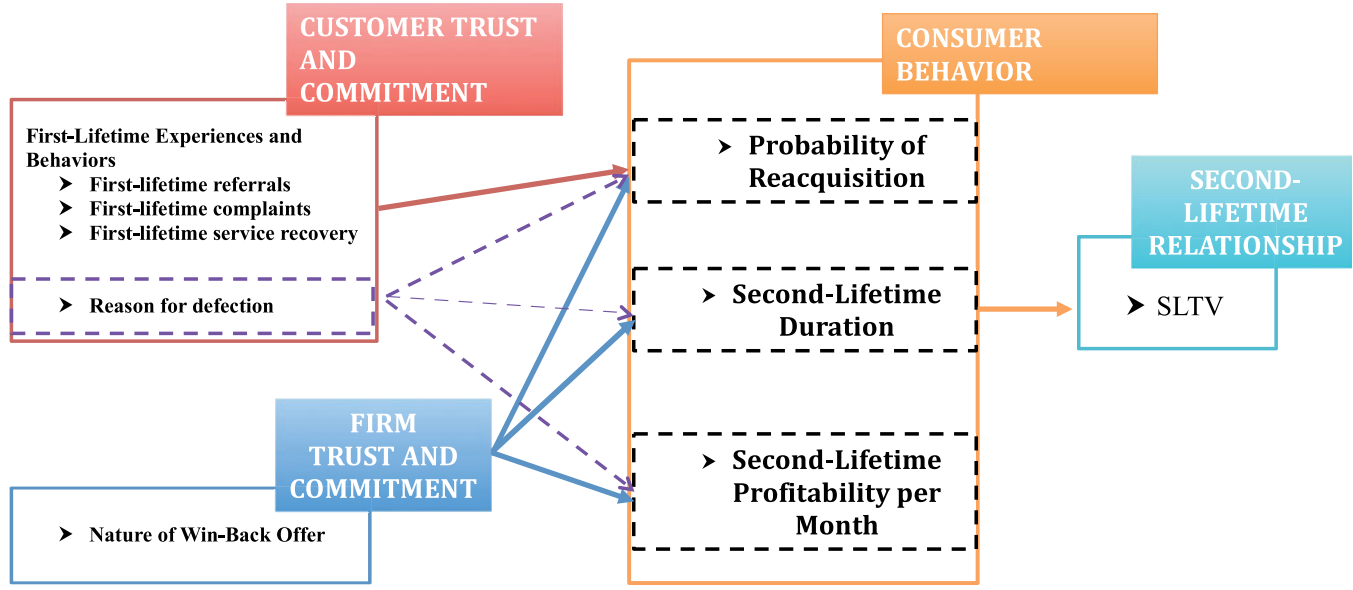
and there is uncertainty associated with whether the decision to return is the right one or indeed regrettable (Pollatsek and Tversky 1970; Rapoport and Wallsten 1972).[2] In the case of customer win-back, customers have more information about the firm to guide their decision-making process. In general, people prefer to use their own experiences over other sources of information when making purchase decisions, particularly when the decision is risky (Murray 1991). The level of trust and commitment in the first lifetime is based on customers' personal experience from their first lifetime, and the reason for defection is likely to be highly influential in mitigating or amplifying their perceived risk in trusting and ultimately returning to the firm. This is because these customers left for a reason and likely switched and adapted to a competitor. Ganesh, Arnold, and Reynolds (2000) show that customers who switch to a competitor are inclined to be loyal to that competitor. Thus, trust and commitment in the first lifetime plays a crucial role in the firm convincing the customer to leave the competitor. Furthermore, the firm's level of trust and commitment with the customer in the form of a win-back offer can help mitigate the uncertainty associated with switching back to the firm by creating additional value for the customer.

Although restoring trust is especially crucial to reacquire lost customers, restoring commitment is equally important to rebuild long-lasting and profitable relationships with them. The reason customers defected is an indication of their level of trust and commitment with the firm in the first lifetime and should have implications for how committed they will be in the second lifetime, in terms of their second-lifetime duration and profitability. Stauss and Friege (1999) argue that the reason customers defect indicates what they value—price discounts, which are easily imitable, versus service experiences, which are unique to service providers and more difficult to copy. The benefits a firm offers its customers to increase value constitute one way to reinforce commitment (Morgan and Hunt 1994). In the case of customer win-back, the win-back offer (an indication of the firm's trust and commitment) is a means to increase value for lost customers. Customers gauge the future value of their relationship with the firm and weigh the future benefits of maintaining the relationship against the costs of defecting (Oliver and Winer 1987). In a service industry setting, Bolton (1998) finds that the duration of a customer's lifetime with a firm is positively related to his or her cumulative satisfaction with the firm. Consistent with Bolton's (1998) findings, we believe that the duration that customers decide to stay with a firm after reacquisition as well as their second-lifetime profitability are determined by how satisfied they are with the firm's win-back offer and whether they foresee greater value in staying with the firm than in defecting. Customers will only commit to and continue spending with the firm in their second lifetime if the win-back offer provides them value through price and/or the service experience. Essentially, we argue that customers' willingness to trust the firm again will determine their likelihood of reacquisition; after they are reacquired, the extent of value they perceive in committing to and maintaining a relationship with the firm will determine how long they stay and how much they spend with the firm.

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[2]An important distinction to make is whether the customer's decision to return to the firm is based on (1) whether it is the right one or regrettable, or (2) whether the initial decision to defect was the right one or regrettable. We focus on reacquisition, rather than defection, and argue the former, reasoning that customers who regretted their decision to defect are more likely to return to the firm on their own rather than wait for a win-back offer; therefore, we do not include these customers in our sample.

The Impact of Customer Trust and Commitment (First-Lifetime Service Experiences and Behaviors) on the Likelihood of Reacquisition

When an existing customer refers a new customer to the firm, (s)he is recommending the firm and spreading positive word of mouth (Kumar, Petersen, and Leone 2007). We define referral behavior as the number of prospects an existing customer acquires for the firm. Customers of this firm were monetarily incentivized for formally acquiring prospects as new customers for the firm. Verhoef, Franses, and Hoekstra (2002) find that satisfaction, trust, and affective commitment are all strongly and positively related to referral behavior, implying that customers who refer a firm have strong relationships with that firm. Biyalogorsky, Gerstner, and Libai (2001) argue that it is customer delight that triggers behavioral outcomes, particularly referral behavior. This assumption holds even when referral behavior is motivated by rewards because it is unlikely for customers to dishonestly recommend a firm to people with whom they intend to maintain close social ties. Furthermore, customers typically recommend the firm to friends and family (Biyalogorsky, Gerstner, and Libai 2001). This implies that the customers who refer the firm to others trust the firm's service delivery. In the case of customer win-back, in spite of positive experiences, the customer still ended the relationship. However, we argue that because referral behavior indicates previous trust and commitment to the firm (Verhoef, Franses, and Hoekstra 2002), the more people a customer has referred to the firm in the past, the stronger the previous relationship. Moreover, the stronger the previous relationship, the more willing the customer should be to trust the firm again, especially because the firm will ensure that the win-back offer is attractive and competitive. So, although the customer has defected, the more people (s)he has referred to the firm, the more positively (s)he should remember the first-lifetime experience. We conjecture that customers who have had enough positive experiences with a firm to refer it to others are unlikely to perceive risk about accepting a win-back offer and trusting the firm again to reestablish the business relationship. Thus, we hypothesize the following:

H_1: Referral behavior is positively related to the likelihood of reacquisition.

Customers who complain are expressing their dissatisfaction with the firm (Zeithaml, Berry, and Parasuraman 1996). The number of complaints (defined as a formal statement of dissatisfaction to the firm's customer representative) that customers make to the firm is a good indicator of the number of subpar experiences they have had with the firm. In the context of our study, complaints can pertain to service- and/or price-related issues. These subpar experiences account for 60% of firm actions that lead to customer switching behavior and are frequently the sole reason for customers switching to a competitor (Keaveney 1995), which is a behavioral manifestation of lack of commitment. This finding is evidence that service failures in particular can be very damaging to a customer's perception of the firm. Customer complaints are an indication of a loss of trust in the firm (Tax, Brown, and Chandrashekaran 1998).

Smith and Bolton (1998) find in restaurant and hotel settings that both overall satisfaction and transaction-specific satisfaction with the firm are positively associated with repatronage intentions. Furthermore, if customers are worried that a service failure may occur again, their repatronage intentions will be lower than if they are confident that the service failure was an isolated incident. Thus, the more complaints customers have made in their first lifetime, the less likely they will be to trust the firm again, especially in the case of a customer win-back in which they likely switched and adapted to a competitor. The more negative experiences customers had in the first lifetime, the more unlikely that the win-back offer will be attractive enough to restore their trust. We believe Smith and Bolton's findings also apply to customers of subscription-based services in the context of customer reacquisition because if customers are less likely to return to a firm due to negative perceptions in a noncontractual setting, they should also be less likely to reenter a contractual relationship with a firm with which they had negative experiences. The more negative customers' experiences in the first lifetime (before defection), the more risk they will perceive in trusting and switching back to the firm.

H_2: Complaining behavior is negatively related to the likelihood of reacquisition.

Given the deleterious impact of service failures, firms often attempt to rectify their mistakes by providing a service recovery. A service recovery is an action the firm takes to rectify a service failure (Smith and Bolton 1998). In the context of this study, examples of service recoveries include restoring outages in cable, Internet, and/or phone service and offering free service for a period of time. Smith and Bolton (1998) argue that a service recovery has the potential to either restore customer satisfaction and loyalty or simply make matters worse. If customers perceive the firm's recovery efforts to be inappropriate and/or inadequate, this can exacerbate their dissatisfaction, thus leading to a perceived "double deviation" (Bitner, Booms, and Tetreault 1990). In the case of a customer win-back effort in which the customer left the firm in spite of the firm's recovery efforts, we believe a double deviation effect is more likely. In other words, if the recovery efforts were enough to restore satisfaction, the customer would not have defected in the first place. Tax, Brown, and Chandrashekaran (1998) find in a service setting that poorly recovered complaints damage customer trust. When customers believe the firm did put forth enough effort in their recovery, their negative feelings are exacerbated (McColl-Kennedy and Sparks 2003). Although customers may acknowledge that recovery efforts (albeit inadequate ones) from the firm are better than no efforts at all, if they still defected in spite of receiving some form of a recovery effort, they are likely to associate the firm with subpar customer service. Such customers who have negative experiences with the firm are less likely to trust the firm again. They perceive switching back to the firm as highly risky, regardless of the firm's good intentions expressed in recovery efforts. They may anticipate regretting their decision to

return to the firm if they are subjected to undesirable experiences again. Thus, we hypothesize the following:

H$_3$: A service recovery before defection is negatively related to the likelihood of reacquisition.

The Impact of Customer Trust and Commitment (Reason for Defection) on the Likelihood of Reacquisition

We build on the findings of Tokman, Davis, and Lemon (2007) and Stauss and Friege (1999) and distinguish three reasons that customers defect: solely price-related issues, solely service-related issues, and both price- and service-related issues. Stauss and Friege argue that the reason for defection gives helpful hints and insights into defected customers' switching behavior and has implications for their behavior after reacquisition. The reason for a customer's defection is particularly useful information given that customers who defect are not necessarily dissatisfied (Capraro, Broniarczyk, and Srivastava 2003). However, understanding whether the customer attributed his or her reason for defection to price-, service-, or both price- and service-related reasons can help the firm understand which aspect of the service experience the customer emphasizes. The customers who left for only price-related reasons were not necessarily dissatisfied with the firm's pricing (they may have simply found a better price with a competitor as opposed to feeling negatively about the firm's prices) and were definitely not dissatisfied with the firm's service quality. Because these customers were lured away by competitors, they likely had little commitment to the firm. They are likely inherently less loyal to firms in general and will probably respond to the firm's win-back offer if it is in their interest. Because they are aware of the price the firm is offering through the win-back offer, they will perceive little risk in returning to the firm so long as they view the win-back offer to be attractive.

In contrast, the customers who left for service-related issues were likely displeased with their service experience and lost trust in the firm. They left the firm because they were no longer able to rely on the firm to provide consistent high-quality service. In the context of this service provider, they may have been dissatisfied with the service quality of the firm (slow Internet or outages in cable, Internet, and/or phone service) because it did not meet their expectations. Ganesh, Arnold, and Reynolds (2000) find that customers who leave the firm because of dissatisfaction become especially satisfied and exhibit active loyalty behaviors (e.g., spreading positive word of mouth) favoring the competing firm that won their business. Customers who left the firm for service-related reasons typically do not reflect on the firm with rose-tinted glasses; instead, they are even more inclined to favor the competing firm to which they have switched. After they have adapted to the service quality of a competitor, these customers may especially fear future service failures, frustration, and regret about their decision to reenter the business relationship in the event that the original firm does not meet their expectations again. It is important to mention that some customers who left for service-related reasons may not have been dissatisfied with the firm but may have been promised higher service quality (i.e., higher speed, access to a priority customer care line) from a competitor. These customers may still find it difficult to trust that the firm will deliver service equivalent to what they have become accustomed to with the competitor. Although there is little uncertainty regarding a price discount, there is uncertainty regarding whether the service experience will meet expectations. Finally, the customers who left for both price- and service-related issues were likely the least satisfied with the firm given that their demands for service quality and price discounts were not met. We argue that they likely have the least trust and commitment toward the firm. Thus, they are probably the most unwilling to give the firm a second chance. Therefore, we hypothesize the following:

H$_4$: Customers who left for (a) solely price-related reasons are the most likely to accept the win-back offer, (b) solely service-related reasons are less likely to accept the win-back offer, and (c) price- and service-related reasons are the least likely to accept the win-back offer.

The Impact of Firm Trust and Commitment (Nature of the Win-Back Offer) on the Likelihood of Reacquisition

It is reasonable to believe that the more attractive a win-back offer (an indication of the firm's level of trust and commitment in reviving the relationship), the more effective it will be at reacquiring lapsed customers. The firm offered three types of win-back offers: a service upgrade, whereby the customer paid the same amount as before defection for a better package (i.e., faster Internet, more channels, and access to a priority hotline); a price discount, whereby the customer was given a discount for the same level of service before defection; or both a service upgrade and a price discount. All win-back offers are meant to generate additional value for customers so that they will choose to rejoin the relationship. Thus, although the service-based win-back offer provides more for the same amount of money and the price-based win-back offer provides the same services for less money, there is a key distinction: how the value is generated for the customer; the service offer increases benefits, while the price offer decreases cost. A win-back offer that provides a service upgrade should lower the perceived risk in trusting the firm again by relieving apprehension about poor service quality. Although a service upgrade is certainly attractive, we argue that it is not effective at reducing perceived risk in entering another relationship with the firm as a win-back offer that discounts price. This is because although a service-based win-back offer gives the customer a benefit, a price-based win-back offer reduces what the customer must sacrifice, and people weigh potential losses more heavily than potential gains (Kahneman and Tversky 1979; Tversky and Kahneman 1986). A discounted win-back offer should lower the perceived risk of a customer considering rejoining the firm because there will be "less at stake." The less a customer must sacrifice in terms of cost, the lower the risk (s)he should perceive to be willing to trust the firm again. A win-back offer that bundles price discounts

with service upgrades should be most effective at reacquiring defected customers by best signaling the firm's trust and commitment and lowering the perceived risk on both fronts, giving the assurance of higher-quality service for less of a sacrifice in terms of price. We hypothesize the following:

H_5: The likelihood of reacquisition is (a) highest for customers presented with a win-back offer that bundles a price discount with service upgrade, (b) lower for customers presented with a win-back offer that offers only a price discount, and (c) lowest for customers presented with a win-back offer that offers only a service upgrade.

The Impact of Customer Trust and Commitment (Reason for Defection) on Second-Lifetime Duration and Profitability

Stauss and Friege (1999) caution that not all customers should be sought after with win-back offers, particularly those who were lured away by competitors that offered lower prices rather than superior service. Keaveney (1995) explains that some customers may leave a service firm even if they are satisfied because a competitor offers a better price. Stauss and Friege (1999) warn that such customers may be price-sensitive "switchers" and may take advantage of the win-back offer only to defect again when they foresee higher utility with a competitor. Essentially, customers who left for price-related reasons were not very committed to maintaining a relationship with the firm. They may be inherently less loyal, low-margin customers due to their deal proneness. In contrast, the customers who left for service-related reasons place value on service quality. Given that the service-related issue was resolved, these customers are less likely to switch between competitors because they perceive more value in the convenience of staying with the firm. They are likely to be more interested in developing a strong relationship with their service providers because they value actual experience and service quality, which is more difficult for a competitor to copy than a price discount (even if a competitor offers a similar service upgrade package). These customers are likely to develop more committed relationships with the firm. Furthermore, they are likely willing to pay more for a higher-quality service and thus are more likely to be high-margin customers. Finally, the customers who defected for both price- and service-related reasons are the most likely to defect again. They may be highly demanding and difficult for the firm to please. Given that these customers left because of dissatisfaction on two fronts (service and price), restoring commitment with them may be challenging for the firm. They may be price sensitive as well as have high service expectations and thus may be easily lured away by competition with discounts and promises of better service. Consequently, we hypothesize the following:

H_6: Customers who left for (a) price- and service-related reasons are likely to have the shortest duration in their second lifetime, (b) solely price-related reasons are likely to have relatively longer duration in their second lifetime, and (c) solely service-related reasons are likely to have the longest duration in their second lifetime.

H_7: Customers who left for (a) price- and service-related reasons are likely to have the lowest profitability per month

in their second lifetime, (b) solely price-related reasons are likely to have relatively higher profitability per month in their second lifetime, and (c) solely service-related reasons are likely to have the highest profitability per month in their second lifetime.

The Impact of Firm Trust and Commitment (Nature of the Win-Back Offer) on Second-Lifetime Duration and Profitability

Similarly, it is reasonable to believe that the more positive experience the win-back offer creates, the more relationship benefits that a customer will perceive in the offer and in staying with the firm. A win-back offer that bundles a price discount with a service upgrade should create the best experience for customers—better service for a lower price. This offer should create the greatest utility for customers, resulting in the most relationship benefits and creating a more committed relationship. A service upgrade in the context of this study includes a better package for customers than what they previously had subscribed to. For example, it could offer more channels, a priority hotline, and faster Internet. A service upgrade is likely to create a superior experience, making it less likely for these customers to switch to competitors. The superior experience my also generate goodwill with customers, exceeding their expectations of the firm's service quality. This may reinforce customers' commitment to the firm, making the relationship even stronger.

Stauss and Friege (1999) caution that customers who respond solely to price discounts are attracted to deals and may defect again, whereas customers who respond to service upgrades care more for service quality. Essentially, they derive value differently: customers who respond to price discounts want to minimize their costs, while customers who respond to service upgrades want to increase their benefits. A service upgrade should provide a better competitive edge than a price discount because a superior experience is more difficult for competitors to imitate than price discounts (Bharadwaj, Varadarajan, and Fahy 1993). Customers who are only given relationship benefits in the form of a price discount can easily switch to a competitor that can offer a lower price. A price discount alone is unlikely to help rebuild and sustain the relationship as effectively as a service upgrade or a bundled price discount and service upgrade win-back offer. Even in the case in which a competitor offers a service upgrade to lure the customer away, if the customer has a better experience with the focal firm due to better service, (s)he should be less inclined to accept it. The better the experience with the focal firm, the more risky the decision to switch to a competitor should be. We argue that service upgrades should help reinforce loyalty behaviors by creating a better experience (customer satisfaction) (Bolton 1998). In conclusion, we assert that the better the experience that a win-back offer creates for the customer in the second lifetime, the longer the customer will stay with the firm. The stronger the relationship a customer redevelops with the firm (instigated by the win-back offer), the more responsive (s)he should be to the firm's future up-sell and cross-sell efforts because (s)he

is willing to trust the firm's capabilities. Given this logic, we hypothesize the following:

H$_8$: The second-lifetime duration is (a) longest for customers who were reacquired with a win-back offer bundling a price discount with service upgrade, (b) shorter for customers who were reacquired with a win-back offer offering only a service upgrade, and (c) shortest for customers who were reacquired with a win-back offer offering only a price discount.

H$_9$: The second-lifetime profitability is (a) highest for customers who were reacquired with a win-back offer bundling a price discount with service upgrade, (b) lower for customers who were reacquired with a win-back offer offering only a service upgrade, and (c) lowest for customers who were reacquired with a win-back offer offering only a price discount.

Data

Data for the study come from a U.S.-based telecommunications products and services firm. The data set covers a seven-and-a-half-year period from the fourth quarter of 2006 through the first quarter of 2014. The data track the activities of each of the firm's customers for seven years, three years before defection and four years after reacquisition. The data also track the reason and the length of time that the customers were lost.

To target the customers who defected for different reasons with the most effective win-back offers, the firm conducted a large-scale randomized field experiment. The firm randomly selected lost customers to send win-back offers in the experiment. The focal firm initiated a one-time win-back offer to these customers in the two- to six-month window since their defection (i.e., termination of their service contract). The win-back offer is typically valid for 30 days after the customers receive it. Customers who defected for different reasons were randomly targeted with different types of win-back offers. For example, customers who defected for price-related reasons received a win-back offer that could have contained a price discount, a service upgrade, or a bundle of a price discount and service upgrade. Through such a randomized research design, we can control for the possibility that the win-back is endogenous. Furthermore, the randomness with which customers received win-back offers lessens the concern that some customers are potentially defecting for the purpose of receiving a win-back offer. Even if some are doing so strategically, they may not necessarily receive a win-back offer to their liking, and thus, the results are largely unaffected.

Note that lapsed customers may have switched to a competitor. Insights from the management of the focal firm indicate that defected customers typically join a competitor's service with a trial offer of three to six months. Within the trial period, there is usually no penalty for breaking the contract. However, if the defected customers decide to return to the focal firm after the trial period with the competing firm, they may be subject to the penalty, which may affect their likelihood of reacquisition. Because we do not have information about their behavior with competitors, we exclude it from the analysis and acknowledge it as a limitation.

The individual-level information we have can be grouped by the first-lifetime service experiences and behavior, the reason for defection, the nature of the win-back offer, the first-lifetime marketing contacts, and the demographics. The first-lifetime data include purchasing and referral activities. The data also record all subscriber-initiated complaints with the firm and any service recovery efforts the company has made. The data regarding the defection and the win-back offer include the time of defection, the reason for defection, and the contents of the win-back offer made to the customer. The marketing data from the first lifetime include the frequency of phone calls, direct mail, and e-mails sent. Finally, the demographic information for each customer includes his or her income, gender, age, household size, and education. We report the variable operationalization in Table 2 and descriptive statistics in Table 3.

We obtained three samples from the overall database. For the reporting of the analysis, the pre-reacquisition sample consists of 53,729 customers who defected and were targeted with a win-back offer. Of these former customers, 14,384 (27%) were reacquired, which constitutes the reacquired sample. It is important to note that these customers were successfully reacquired despite the presence of strong competition from three major suppliers and one regional supplier. We observe that the reacquired customers had a longer average first-lifetime tenure (1,564 days vs. 1,431 days for the entire pre-reacquisition sample). They also had a higher average revenue per month ($81.70 vs. $72.60). The remaining two samples were used for validating the proposed model.

This data set is unique because it records activities involved in a customer's first and second lifetimes. Because many companies treat defected customers as "dead" and then treat them as "new" customers if they rejoin, information that can link customer behaviors before and after defection is extremely valuable for scholars and practitioners. In addition, drawing on the information regarding the reason for defection and the win-back offer, we are able to empirically test our research hypotheses, understand the factors influencing customer defection and win-back, and gain managerial insights to help the firm regain its lost customers and enhance its overall profitability and sustainability.

Research Methodology

Modeling Issues

The goal of our study is to model the probability of reacquisition, second-lifetime duration, and profitability per month. There are both data and modeling challenges we must address. With regard to the data challenge, the data are right-censored. Although we have four years of data in the second lifetime for customers who were successfully reacquired, some may still be "alive" beyond these four years; in other words, their second-lifetime duration is not completely observed at the time of our analysis. Because we are analyzing the telecommunications industry, identifying the customers who are still "alive" is easy because they are bound by a contract. Censoring leads to a loss of information, and the use of conventional ordinary least squares regression would provide biased estimates. Thus, we use the

TABLE 2
Model Variables and Operationalization

Driver Category	Variable	Operationalization
First-lifetime service experience and behavior	Number of referrals	The number of new referrals per year a customer acquired for the firm
	Number of complaints	The number of complaints per year initiated by a customer
	Service recovery	The number of service recovery efforts per year by the firm
Defection behavior	Price-related dummy	A dummy variable for which a value of 1 signifies that the customer defected only for price-related reasons, and 0 otherwise
	Service-related dummy	A dummy variable for which a value of 1 signifies that the customer defected for only service-related reasons, and 0 otherwise
	Price- and service-related dummy (reference)	The customer defected for both price- and service-related reasons
	Time since defection	The number of months since the customer defected until (s)he is reacquired
Win-back offer	Price discount dummy	A dummy variable for which a value of 1 signifies that the customer was offered only a price discount in the win-back promotion, and 0 otherwise
	Service upgrade dummy	A dummy variable for which a value of 1 signifies that the customer was offered only a service upgrade in the win-back promotion, and 0 otherwise
	Price discount and service upgrade	The customer was offered both a service upgrade and a price discount in the win-back promotion (reference group)
Defection reason × Win-back offer	Price-related defection × Price discount offer	A variable for which a value of 1 signifies that the customer left for price-related reasons and was targeted with a price discount offer
	Service-related defection × Service upgrade offer	A variable for which a value of 1 signifies that the customer left for service-related reasons and was targeted with a service upgrade offer
First-lifetime marketing contacts	Number of phone calls	The number of phone calls the firm made per year to the customers in their first lifetime to up-sell, cross-sell, offer promotions, and so on
	Number of e-mails sent	The number of e-mails the firm sent per year to the customers in their first lifetime
	Number of direct mails	The number of direct mails the firm sent per year to the customers in their first lifetime
Demographics and first-lifetime control variables	Age	The age of the household
	Gender	A dummy variable for which a 1 indicates a male customer and 0 indicates a female customer
	Income	The income of the household
	Household size	The number of people living in the account holder's household
	Education	The highest level (in years) of education of the account holder
	Tenure	The number of days a customer spent with the firm prior to defection
	Revenue	The revenue per month contributed to the firm before the account holder's defection
	Level of service plan	A discrete scale whereby the lowest-priced plan (i.e., economy plan) is labeled 1, ranging in increments of 1 to the most expensive plan
	Cross-buy	The number of purchases in different departments of the firm (i.e., Internet, cable, land lines, and mobile phone service)

right-censored Tobit model to investigate second-lifetime duration (Reinartz, Thomas, and Kumar 2005; Thomas 2001).

With regard to the modeling challenge, we expect the analysis of the reacquired sample to suffer from the common sample selection bias problem as a result of the reacquisition process. There is a possible intercorrelation among the reacquisition likelihood, second-lifetime duration, and profitability per month. Failure to account for such correlations may lead to biased estimates. We specify a full variance–covariance structure to capture the intercorrelations among the three processes and use the full information maximum likelihood to jointly estimate the three models.

Heterogeneity

We need to consider both the observed and unobserved heterogeneity. To account for observed heterogeneity, we include several demographic variables (e.g., age, gender, education) in all three models. To account for the unob-

TABLE 3
Descriptive Statistics of the Two Samples

	Pre-Reacquisition Sample[a] (N = 53,729)		Reacquired/Selected Sample (N = 14,384)	
	M	SD	M	SD
First-Lifetime Service Experience and Behavior				
Number of referrals (per year)	.054	.021	.067	.029
Number of complaints (per year)	.11	.038	.083	.034
Service recovery (per year)	.08	.02	.082	.027
Defection Behavior				
Service-related reason (dummy)	.33	.47	.36	.48
Price-related reason (dummy)	.46	.50	.44	.50
Service- and price-related reason (dummy)	.21	.40	.20	.40
Time since defection (months)	3.4	1.38	3.26	1.47
Win-Back Offer				
Price discount (dummy)	.37	.48	.42	.49
Service upgrade (dummy)	.38	.48	.36	.48
Service upgrade and price discount (dummy)	.25	.43	.22	.41
Defection × Win-Back Offer				
Price Defected × Price discount	.27	.44	.38	.49
Service Defected × Service upgrade	.22	.41	.27	.44
First-Lifetime Marketing Contacts				
Number of phone calls (per year)	.67	.18	.66	.17
Number of e-mails sent (per year)	3.86	.44	3.93	.45
Number of direct mailings sent (per year)	2.07	.25	2.11	.23
Demographics and First-Lifetime Control Variables				
Age of household (years)	40.7	17.9	43.2	17.6
Gender of household (male)	59.3%	49.1%	57.6%	49.4%
Household income	94,672	25,689	98,526	27,118
Household size	2.87	1.09	3.06	1.12
Highest education (years)	15.72	2.9	16.7	2.1
Tenure of first-lifetime (days)	1,431	102.6	1,564	103.4
Revenue (per month)	72.6	18.7	81.7	19.7
Level of service plan	2.18	.72	2.72	.73
Cross-buys	2.06	.8	3.03	1.16
Dependent Variables (Uncensored)				
Second-lifetime duration (days) of customers who left again	N.A.	N.A.	1,181.2	102.6
Predicted second-lifetime duration (days) of customers who left again	N.A.	N.A.	1,197.5	106.8
Second-lifetime profitability per month ($) of customers who left again	N.A.	N.A.	20.6	2.46
Percentage right censored			32%	

[a]The sample refers to the entire pool of reacquired and nonreacquired customers before reacquisition.
Notes: N.A. = not applicable.

served heterogeneity, we use a latent-class segmentation approach (Kamakura and Russell 1989).

Statistical Models

We use a probit model to capture the reacquisition process, a right-censored Tobit model for the second lifetime duration, and a regression for the profitability per month. The mathematical specifications of the models are expressed as follows (for the ease of reading, we suppress the latent-class segment subscripts):

$$(1) \quad \begin{aligned} y_{1i}^* &= \beta_1' x_{1i} + \varepsilon_{1i} \\ y_{1i} &= \begin{cases} 1 \text{ if } y_{1i}^* > 0 \\ 0 \text{ if } y_{1i}^* \leq 0 \end{cases} \end{aligned} \quad \text{(Reacquisition Equation: Probit)}$$

$$(2) \quad y_{2i} = \begin{cases} y_{2i}^* = \beta_2' x_{2i} + \varepsilon_{2i} & y_{1i} = 1, y_{2i}^* \leq C_i \\ C_i & y_{1i} = 1, y_{2i}^* > C_i \end{cases} \quad \text{(Duration Equation: Right-Censored Tobit)}$$

$$(3) \quad y_{3i} = \beta_3' x_{3i} + \varepsilon_{3i} \quad y_{1i} = 1 \quad \text{(Profitability/Month Equation: Regression)}$$

where

y_{1i}^* = a latent variable indicating customer i's utility to reengage in a relationship with the firm,

y_{1i} = an indicator variable showing whether customer i is reacquired ($y_{1i} = 1$),

y_{2i} = the second-lifetime duration of customer i,

y_{2i}^* = a latent variable related to y_{2i},

y_{3i} = the second-lifetime profitability per month of customer i,

x_{1i} = a vector of covariates affecting the reacquisition of customer i,

x_{2i} = a vector of covariates affecting the second-lifetime duration of customer i,

C_i = the upper limit of the second-lifetime duration of customer i if it is censored,

x_{3i} = a vector of covariates affecting the second-lifetime profitability per month of customer i, and

β_1, β_2, and β_3 = vectors of parameters.

The error terms (ϵ_{1i}, ϵ_{2i}, ϵ_{3i}) are assumed to follow

$$(4) \quad \begin{bmatrix} \epsilon_1 \\ \epsilon_2 \\ \epsilon_3 \end{bmatrix} \sim N[0, \Sigma], \Sigma = \begin{pmatrix} \sigma_1^2 & \rho_{12}\sigma_1\sigma_2 & \rho_{13}\sigma_1\sigma_3 \\ \rho_{12}\sigma_1\sigma_2 & \sigma_2^2 & \rho_{23}\sigma_2\sigma_3 \\ \rho_{13}\sigma_1\sigma_3 & \rho_{23}\sigma_2\sigma_3 & \sigma_3^2 \end{pmatrix},$$

where $\sigma_1^2 = 1$ under the probit assumption and ρ_{12}, ρ_{13}, and ρ_{23} capture the correlations among reacquisition probability, second-lifetime duration, and profitability per month.

Variables

Equation 5 presents the variables we include in the reacquisition equation, the second-lifetime duration equation, and the profitability per month equation.

$$(5) \quad y_{1i}^* \left(y_{2i}^*, y_{3i}\right) = \beta_0 + \beta_1 CB_i + \beta_2 CB_i^2 + \beta_3 REF_i + \beta_4 COMP_i$$

$$+ \beta_5 RECOV_i + \beta_6 DEF_{PRC_i} + \beta_7 DEF_{SER_i} + \beta_8 DEF_{T_i}$$

$$+ \beta_9 DEF_{T_i}^2 + \beta_{10} OFF_{PRC_i} + \beta_{11} OFF_{SER_i}$$

$$+ \beta_{12} DEF_{PRC_i} \times OFF_{PRC_i} + \beta_{13} DEF_{SER_i} \times OFF_{SER_i}$$

$$+ \beta_{14} PHONE_{i1} + \beta_{15} EMAIL_{i1} + \beta_{16} DMAIL_{i1}$$

$$+ \beta_{17} PHONE_{i1} \times EMAIL_{i1} + \beta_{18} PHONE_{i1} \times DMAIL_{i1}$$

$$+ \beta_{19} DMAIL_{i1} \times EMAIL_{i1} + \beta_{20} AGE_i + \beta_{21} GEN_i$$

$$+ \beta_{22} INCOME_i + \beta_{23} HN_i + \beta_{24} EDU_i + \beta_{25} TEN_i$$

$$+ \beta_{26} REV_i + \beta_{27} PLAN_i + \epsilon_{1i}\left(\epsilon_{2i}, \epsilon_{3i}\right).$$

In all three equations, we include six sets of variables (see Table 2). The first set is the customers' first-lifetime service experience and behavior. The variable REF, the number of referrals, captures how many new customers the customer acquires for the firm by recommending it to others. The number of complaints, COMP, indicates the number of times a customer contacted the firm to report his or her dissatisfaction. The service recovery variable, RECOV, captures whether the firm corrected a reported service failure.

The second set of variables is the customers' reason for defection. When customers terminate their relationship with the firm, the firm records why they are leaving by administering a survey. The survey is conducted by a customer representative at the time of service termination. The reasons are recorded as price related, service related, or both. DEF_PRC, price-related reasons, signals whether the price the firm offers is too high or whether a competitor is offering a lower price. DEF_SER, service-related reasons, pertains to dissatisfaction with the quality of service (e.g., reliability, speed). We code both DEF_PRC (1 = if defected for any price-related reason) and DEF_SER (1 = if defected for any service-related reason) as dummy variables. DEF_T indicates the time elapsed since the customer's defection. Whereas Thomas, Blattberg, and Fox (2004) find that the longer the time elapsed since customers' defection, the lower the likelihood of them coming back, we argue that

contacting lost customers too early is not ideal, because they may be still immersed in the former unsatisfactory experiences. Thus, we include both the linear DEF_T and the quadratic term DEF_T^2 in the model.

The third set of variables is the win-back offer that the firm sent to the customer. The win-back offer is categorized as price based, service based, or both price and service based. OFF_PRC, the price-based win-back offer, includes a promotional discount for a period of six months. OFF_SER, the service-based win-back offer, includes a free service upgrade (e.g., faster Internet) for a period of six months. The price- and service-based win-back offer includes a promotional discount as well as a free service upgrade for a period of six months. Because the industry is very competitive, the focal firm predetermines the discount price or service upgrade relying on expert knowledge and market analysis. The focal firm did not vary the depth of price discount or service upgrade in the experiment. Thus, we code both OFF_PRC (1 = if received a win-back offer of price discount) and OFF_SER (1 = if received a win-back offer of service upgrade) as dummy variables.

The fourth set of variables consists of the interactions between reasons for defection and win-back offers. DEF_PRC × OFF_PRC indicates that the customers defected for a price-related reason and were targeted with an offer of a temporal price discount. DEF_SER × OFF_SER indicates that the customers defected for a service-related reason and were targeted with an offer of a service upgrade. We code all other interactions in which the win-back offer is not matched with the reason for defection as the reference group.

The fifth set of variables is the customer's first-lifetime marketing contacts. PHONE$_1$, EMAIL$_1$, and DMAIL$_1$ indicate the number of phone calls, e-mails sent, and direct mail sent on an annual basis to the customer during his or her first lifetime by the firm. We include both the main effects and their interactions in the models (e.g., Kumar, Zhang, and Luo 2014). These marketing communications were primarily retention efforts to keep customers if their contracts were close to expiration.

The sixth set of variables includes the demographic and customer characteristics and first-lifetime control variables. For the first-lifetime control variables, we include TEN, REV, and PLAN to represent the tenure (i.e., the total number of days) the customer had been with the firm, the revenue (in dollar value) the customer had contributed to the firm, and the level of the service plan the customer had subscribed to before defection, respectively. The level of service plan indicates on a discrete scale the value of a customer's subscription package at the time of defection. We also include CB, the number of cross-buys (e.g., cable, phone, Internet), which indicates a customer's familiarity with the firm's service offerings and is the cumulative number of services to which the customer subscribed from three years before defection. We include both the linear CB and the quadratic term, CB^2. AGE, GEN, INCOME, HN, and EDU indicate the age, gender, income, household size, and the highest level of education of the service account holder.

The three-equation models specified in Equations 1–5 can be identified properly if they are estimated jointly (e.g.,

Rous, Jewell, and Brown 2004). If not, an exclusion restriction is needed when the predicted value (e.g., the inverse Mills ratio in the Heckman two-step procedure) is passed from the selection equation to the outcome equation (Cragg 1971; see also Wooldridge 2002, pp. 536–38). Though unnecessary in our case, we still include at least two unique variables in the selection and the outcome models. We use the average income and household size of the service account holder's first lifetime in the reacquisition equation.[3] We include the average income and household size of the service account holder's second lifetime in the duration and profitability equations. Note that if the purpose is to predict the second-lifetime duration and profitability, we can use the projected income and household size as an approximation. We observe variations in these variables within customers due to the evolution of their life cycles and because the sample used for the second lifetime duration and profitability equations is a subset of the sample used for the reacquisition equation. We argue that the evolution of customers' life cycles, such as an increase in family size or household income, should change their needs for the telecommunications service. We use age as a control variable.

Estimation

To estimate the models specified in Equations 1–5, we need to construct the likelihood function. There are three scenarios to consider in this context, which is specified as follows:

- Scenario 1: $y_{1i} = 0$, which indicates customer i was not reacquired successfully. The likelihood corresponding to this scenario is

$$(6) \qquad L_{1i} = P(y_{1i} = 0) = P(y_{1i}^* \leq 0) = 1 - \Phi(\beta_1' x_{1i}),$$

where Φ is the standard normal distribution function.

- Scenario 2: $y_{1i} = 1, y_{2i}^* \leq C_i$, which indicates customer i was reacquired successfully and left the firm again (y_{2i} is observed completely). The likelihood corresponding to this scenario is

$$(7) \quad L_{2i} = P(y_{1i}^* > 0, y_{2i}^*, y_{3i}) = P(y_{1i}^* > 0 | y_{2i}^*, y_{3i}) f(y_{2i}^*, y_{3i})$$

$$= \left[1 - \Phi\left(\frac{-\beta_1' x_{1i} - \overline{\mu}_i}{\sqrt{\overline{\Sigma}}} \right) \right] \phi_2 \left[\begin{pmatrix} y_{2i}^* - \beta_2' x_{2i} \\ y_{3i} - \beta_3' x_{3i} \end{pmatrix}, \Sigma_{11} \right],$$

where ϕ_2 is the bivariate normal density function. The conditional mean $\overline{\mu}_i$ is specified as $\Sigma_{21} \Sigma_{11}^{-1} \binom{\varepsilon_2}{\varepsilon_3}$. The conditional variance $\overline{\Sigma}$ is specified as $\Sigma_{22} - \Sigma_{21} \Sigma_{11}^{-1} \Sigma_{12}$, where $\Sigma_{22} = \sigma_1^2, \Sigma_{21} = \Sigma_{12}'$, and $\Sigma_{12} = \binom{\rho_{12}\sigma_1\sigma_2}{\rho_{13}\sigma_1\sigma_3}$. The covariance matrix for the bivariate normal distribution Σ_{11} is specified as $\binom{\sigma_2^2 \quad \rho_{23}\sigma_2\sigma_3}{\rho_{23}\sigma_2\sigma_3 \quad \sigma_3^2}$. We provide the technical details in the Web Appendix.

- Scenario 3: $y_{1i} = 1, y_{2i}^* > C_i$, which indicates that customer i was reacquired successfully and has stayed with firm until the end of the observation window (y_{21} is censored). The likelihood corresponding to this scenario is

$$(8) \; L_{3i} = P(y_{1i}^* > 0, y_{2i}^* > C_i, y_{3i}) = P(y_{1i}^* > 0, y_{2i}^* > C_i | y_{3i}) f(y_{3i})$$

$$= \frac{1}{\sigma_3} \phi\left(\frac{y_{3i} - \beta_3' x_{3i}}{\sigma_3} \right) \int_{-\beta_1' x_{1i}}^{+\infty} \int_{C_i - \beta_2' x_{2i}}^{+\infty} \phi_2(\varepsilon_{1i}, \varepsilon_{2i} | \varepsilon_{3i}) d\varepsilon_{1i} d\varepsilon_{2i},$$

where ϕ is the univariate standard normal density function and the double integral is approximated using the Geweke–Hajivassiliou–Keane[4] (GHK) smooth recursive simulator. We report the detail of the GHK simulator in the Web Appendix.

In summary, the full log-likelihood is given by

$$(9) \; \ln L_i = \sum_{i=1}^{N} \left[(1 - y_{1i}) \ln L_{1i} + y_{1i}(1 - \delta_i) \ln L_{2i} + y_{1i}\delta_i \ln L_{3i} \right],$$

where δ_i is an indicator variable ($\delta_i = 0, y_{2i}^* \leq C_i$). We use the full information maximum likelihood estimation to jointly estimate the models and write the programing code in R.[5] We also conduct a simulation study with different levels of censoring and show that we can recover all the parameters. We provide the simulation details in the Web Appendix.

Results

We estimate the multi-equation models with latent class and find that the latent-class specification does not improve the model fit. (The Bayesian information criterion values of the latent-class models are available from the authors on request.) To ensure the robustness of our estimation, we estimate the models on three samples of similar size reported in the study that we draw at random from the overall database. The results are qualitatively consistent and similar, and therefore, we report the results from one of the sample estimations. We report the standardized parameter estimates for a one-segment specification in Table 4.[6]

In support of H_1, we find that referral behavior is positively related to the likelihood of reacquisition (b = .0043, $p < .05$). In support of H_2, we find that the number of complaints in the first lifetime is negatively related to the probability of reacquisition (b = –.026, $p < .05$). Surprisingly, we do not find support for H_3. Instead, we find that a service recovery in the first lifetime is positively related to the

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[3]We argue that the income and household size of the service account holder at the time of reacquisition can be used if the information is available. However, because we do not have those numbers at the time of reacquisition, we use the mean value of the first lifetime as an approximation.

[4]The computation of bivariate normal probabilities can be approximated using quadrature, but it requires a large amount of computing effort (Greene 2011). The GHK simulator has been proposed and used extensively in evaluating multivariate normal integrals.

[5]Alternatively, the Stata CMP module can be used to estimate the model specified in this study. We argue that if the purpose of the research is to fit the data in general, with no interests in specifying a latent-class structure, one can use a convenient routine (e.g., Stata CMP). However, because we need to account for unobserved heterogeneity using a latent-class model, we write the likelihood function and the estimation code ourselves. We contribute to the literature by offering future researchers a means to specify the model with a latent-class structure.

[6]Given the one-segment solution, we reestimate our proposed model using Stata CMP and obtain similar results, thereby providing confidence in our proposed estimation procedure.

TABLE 4
Standardized Parameter Estimates of the Jointly Estimated Models

Variables	Estimates		
	Reacquisition	Duration	Profitability per Month
First-Lifetime Service Experience and Behavior			
Number of referrals	.0043**	.077*	.102*
Number of complaints	−.026**	−.063**	−.071**
Service recovery	.037**	.082**	.080**
Defection Behavior			
Price-related reason (dummy)	.166**	.163**	.151**
Service-related reason (dummy)	.118**	.114**	.176**
Time since defection	.121**	−.094**	−.104**
Time since defection^2	−.091**	n.s.	n.s.
Win-Back Offer			
Price discount (dummy)	−.059**	.052**	.031**
Service upgrade (dummy)	−.095**	.107**	.071**
Defection × Win-Back Offer			
Price-related reason × Price discount offer	.041**	.068**	.077**
Service-related reason × Service upgrade offer	.020**	.112**	.108**
First-Lifetime Marketing Contacts			
Phone calls	.177**	.227**	.228**
E-mails sent	.144**	.181**	.182**
Direct mail sent	.163**	.242**	.196**
Phone calls × Direct mail	.059**	.063**	.082**
Phone calls × E-mails	.040**	n.s.	n.s.
Direct mail × E-mails	.017**	.020**	.044**
Demographics and Control Variables			
Age	−.005**	.014**[a]	.019**[a]
Income	.046**	.041**[a]	.055**[a]
Household number	.025**	.032**[a]	.026**[a]
Gender	.024**	−.086**	.121**
Education	.021**	.048**	.051**
Tenure	.027**	.053**	.062**
Revenue	.182**	.216**	.261**
Level of service plan	.086**	.108**	.137**
Cross-buys	.217**	.281**	.303**
Cross-buys^2	−.036**	−.005*	−.010*

Full Variance–Covariance Matrix (Cholesky Decomposition)	Estimates	SE
l_{11}	Fixed as 1	
l_{21}	.760	.022
l_{31}	.440	.015
l_{22}	.389	.011
l_{32}	.560	.019
l_{33}	.204	.006

*$p < .10$.
**$p < .05$.
[a]Variable value for the second lifetime.
Notes: n.s. = not statistically significant.

probability of reacquisition (b = .037, $p < .05$). We had hypothesized that a service recovery made in the first lifetime of a customer who eventually defected would make a negative impression on the customer and therefore increase his or her perceived risk in switching back to the service firm. However, it seems that a service recovery in the first lifetime instead has the opposite impact and that defected customers still appreciated the service firm's recovery efforts. One explanation could be that the customers actually viewed the service recovery effort as a positive gesture and earnest effort by the firm.

With respect to how the reason for defection is related to the probability of reacquisition, we find support for H_{4a-c}[7] and observe that the customers who left for price-related reasons are the most likely to switch back to the firm (b = .166, $p < .05$), followed by the customers who left for service-related

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[7]We conduct several Z-tests on the coefficients related to H_4–H_9, and the statistics confirm that the related coefficients are significantly different from one another (e.g., Paternoster et al. 1998). From the test statistics, we make the conclusions on H_4–H_9. We thank an anonymous reviewer for suggesting the tests.

reasons (b = .118, $p < .05$). As we expected, the customers who left for both price- and service-related reasons were the least likely to accept the firm's win-back offer. We also find support for H_5 and, as predicted, observe that the customers who were targeted with a bundled price and service win-back offer were the most likely to return compared with customers who were offered only a price discount (b = –.059, $p < .05$) and customers who were offered only a service upgrade (b = –.095, $p < .05$).

With respect to how the reason for defection is related to the second-lifetime duration, we find partial support for H_{6a-c}. Notably, the customers who defected for price-related reasons had the longest second-lifetime durations (b = .163, $p < .05$) compared with the customers who defected for service-related reasons (b = .114, $p < .05$) and both price- and service-related reasons. We find support for H_{7a-c} and find that customers who defected for service-related reasons have the highest second-lifetime profitability (b = .176, $p < .05$) compared with customers who defected for price-related reasons (b = .151, $p < .05$) and customers who defected for both price- and service-related reasons. We find partial support for H_{8a-c}, whereby a win-back offer including only a service upgrade was more positively associated with second-lifetime duration (b = .107, $p < .05$) than only a price discount (b = .052, $p < .05$). Surprisingly, the customers who were offered a service upgrade and price discount were the least positively associated with second-lifetime duration. It may be the case that the customers who were reacquired with such an attractive win-back offer were actually the most price sensitive. Finally, we find partial support for H_{9a-c} and note that customers who were offered a bundled win-back offer had the lowest second-lifetime profitability compared with customers who were offered only a service upgrade (b = .071, $p < .05$) or a price discount (b = .031, $p < .05$). This may be because the bundled win-back offer did not actually create additional goodwill with the customers but rather primed them to be price sensitive. In other words, a too-attractive win-back offer may have a negative effect relative to other win-back offers by encouraging customers to seek better deals.

In addition, we examine the effects of the interactions between the reason for defection and win-back offer on all three dependent variables. The customers who left for price-related reasons and were targeted with a price discount were the most likely to switch back to the firm[8] (b = .148, $p < .05$) compared with customers who defected for service-related reasons and were offered a service upgrade (b = .043, $p < .05$). Furthermore, the customers who left for service-related reasons and were targeted with a service upgrade have longer second-lifetime duration (b = .333, $p < .05$) and higher profitability per month (b = .355, $p < .05$) than the customers who left for price-related reasons and were targeted with a price discount (b = .283, b =.259; $p < .05$).

We also discover some notable findings with respect to the control variables. We find that cross-buying in the first

lifetime is quadratically related to the likelihood of reacquisition (b = .217, $p < .05$; $b^2 = -.036$, $p < .05$). Up to a particular threshold, cross-buying in the first lifetime is positively related to the likelihood of reacquisition, after which it is negatively related. In line with Thomas, Blattberg, and Fox (2004), we find that the length of customers' first tenure has positive effects on their reacquisition probability, second-lifetime duration, and profitability per month. Whereas Thomas, Blattberg, and Fox find that the time since defection has a negative relationship with the probability of reacquisition, we find an inverted U-shaped relationship, meaning that the likelihood of regaining a customer is less if the firm contacts the customer too soon or too late after defection with a win-back offer.

Furthermore, we find that the time since defection is negatively correlated with second-lifetime duration and profitability per month. The longer the lapsed duration, the smaller the duration and profitability per month of the second relationship. The customers who have lapsed for a longer period of time have likely become loyal to a competitor, making it particularly difficult to make them loyal with the focal firm in their second lifetime.

Discussion

The results indicate that a customer's trust and commitment in the first lifetime influence the likelihood of a lapsed customer returning to the firm. More specifically, the results show that behaviors that indicate positive first-lifetime experiences increase the likelihood of lapsed customers returning to the firm. For example, the more customers referred the firm to others in their first lifetime, the more likely they were to accept the win-back offer. Referral behavior indicates not only customers' satisfaction with the firm but also their confidence in the firm's service quality, suggesting an engaged relationship. Customers are typically cautious about recommending firms, given that they usually make referrals to close friends and family.

Surprisingly, a service recovery in the first lifetime was also positively associated with the likelihood of reacquisition. It seems that a service recovery before defection is not necessarily dissatisfactory and does not exacerbate customer frustration with the initial service failure. Rather, it shows the firm's willingness to expend efforts to correct its mistake. This willingness of the firm to recover its failure lowers customers' perceived risk and mitigates the uncertainty they may feel about trusting and returning to the firm. These results contrast with Van Doorn and Verhoef (2008), who find that service recoveries do not have a significant impact on satisfaction. However, they attribute their findings to their measure of satisfaction, which may already capture the impact of service recoveries. As we expected, customer complaints are negatively related to the likelihood of reacquisition, implying that the more negative customers' experiences with the firm, the lower the chances they will accept the win-back offer.

As we expected, the customers who left for price-related reasons were the most likely to accept the win-back offer. These customers are probably not concerned with the

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[8]The b-values for the interactions are calculated as a joint effect of the defection reason, the win-back offer, and their interaction.

service quality of the firm. Furthermore, they had little reason to perceive the decision to switch back to the firm as risky because they were offered a discounted promotional price. In contrast, the customers who left for service-related reasons typically terminated their relationship because of dissatisfaction with the service quality. The decision to switch back to the firm is inherently risky for them because they cannot easily trust that the firm will deliver better service the second time around. Furthermore, customers who switch to a competitor because of dissatisfaction are likely to become particularly satisfied with the competitor (Ganesh, Arnold, and Reynolds 2000), making the decision to switch back even riskier. This may also apply to customers who switched to competitors offering better services, whereby they also adapt to the competitor's level of service. This is amplified for the customers who leave for both price and service reasons, and these customers are the least likely to return to the firm.

The results also indicate that the win-back offer can help mitigate the uncertainty that customers feel about switching back to the firm. A win-back offer that includes both a price discount and a service upgrade is most effective in reacquiring lapsed customers. This is logical given that it is the most attractive win-back offer. As we expected, a price-based win-back offer mitigated risk to trust the firm again better than a service based win-back offer. This is likely because it is easier for one to make judgments about price than service quality because service quality is more variable and thus difficult to predict.

While a win-back offer that offers both a price discount and a service upgrade is the most effective in reacquiring customers, it is also associated with the lowest second-lifetime duration and profitability relative to price-based and service-based win-back offers. The win-back offers that discount price are associated with relatively higher second lifetime duration, and the win-back offers that provide a free service upgrade are associated with the highest second-lifetime duration. These results are in line with Thomas, Blattberg, and Fox (2004), who find that customers who are reacquired with higher prices stay longer with the firm. It is possible that win-back offers that discount the price and also give a free service upgrade prime customers to actively seek deals. These customers may be easily lured away by competitors and also may become accustomed to paying a low price for high-quality service. They may be less responsive to the firm's future attempts to up-sell and cross-sell them additional or better services. Finally, we find that customers who defected for service-related reasons have relatively shorter second-lifetime durations than customers who defected for price-related reasons. This is likely because they have higher expectations, and it is more difficult for the firm to satisfy them and build a long-lasting relationship. However, customers who defected for service-related reasons do spend more each month than customers who defected for price-related reasons. They likely value the service experience more and are willing to pay more for a stronger relationship.

Simulation Study

Managers need to know how to match customers with the right win-back offers to succeed at attracting and retaining the best customers. Thomas, Blattberg, and Fox (2004) conduct several simulations to determine the optimal reacquisition price offer and retention price on the basis of forecasting the expected second-lifetime value. Our simulation study differs in three ways. First, whereas Thomas, Blattberg, and Fox examine the newspaper industry, which is characterized by low margins and low service demand, we examine a relatively high-margin, high-service-demand industry—telecommunications. Second, whereas Thomas, Blattberg, and Fox focus on the pricing strategy for reacquisition and retention, we aim to explore the interaction between win-back offers and customers' reasons for defection. Third, we simulate lapsed customers' reacquisition probability and second-lifetime duration, profitability per month, and expected second-lifetime profitability.

Specifically, we conduct a simulation by randomly drawing 5,000 customers from the pre-reacquisition sample. We categorize these customers into three groups on the basis of their defection reason: (1) price (N = 2,330), (2) service (N = 1,666), and (3) price and service (N = 1,004). We manipulate which win-back offer they receive (three options: price based, service based, and price and service based). Because there are three reasons customers could have defected and three different win-back offers with which they could have been contacted, there are nine scenarios in total. From the parameter estimates (Table 4) and Equations 1–5, we calculate each person's reacquisition probability, second-lifetime duration, profitability per month, and expected second-lifetime profitability (calculated by multiplying the reacquisition probability by the second-lifetime duration and profitability per month) under the nine scenarios. We present the mean-forecasted results in Table 5. It is important to note that we report the mean forecast of second-lifetime duration and profitability per month only for those whose predicted reacquisition probability is greater than .5.

If the objective is simply to reacquire as many customers as possible, a bundled price and service win-back offer is the most successful, regardless of the reason for defection. As Table 5 shows, if we determine the success of reacquisition using .5 as the cutoff point for the predicted reacquisition probability (e.g., Reinartz and Kumar 2000), a bundled price and service win-back offer can reacquire 1,213 customers (52.1%) from those who defected for price-related reasons, 711 customers (42.7%) from those who defected for service-related reasons, and 228 customers (22.7%) from those who defected for both price- and service-related reasons.

We argue, however, that prioritizing only customer reacquisition is shortsighted. Rather, the firm should care about how profitable those customers would be if they are successfully reacquired. Although a bundled price and service win-back offer has the highest probability of reacquiring lost customers, the customers who are reacquired with such an offer have a shorter predicted second lifetime duration

TABLE 5
Simulation Results

Defection Reason	Win-Back Offer	Reacquisition Probability	Second Lifetime Duration (Days)	Second Lifetime Profitability per Month ($)	Expected Second Lifetime Profitability ($)d
Price (N = 2,330)a	Price	.499 (.151)c	(N = 1,188)ab 1,203 (36)c	(N = 1,188)ab 23.27 (1.11)	1,117 (436)c
	Service	.438 (.149)	(N = 800) 1,214 (34)	(N = 800) 23.24 (1.06)	966 (415)
	Price and service	.510 (.153)	(N = 1,213) 1,177 (23)	(N = 1,213) 22.59 (1.12)	1,072 (418)
Service (N = 1,666)	Price	.433 (.151)	(N = 542) 1,202 (34)	(N = 542) 23.35 (1.06)	945 (414)
	Service	.430 (.150)	(N = 532) 1,238 (33)	(N = 532) 23.96 (1.07)	993 (434)
	Price and service	.474 (.152)	(N = 711) 1,182 (52)	(N = 711) 22.89 (1.09)	1,010 (416)
Price and service (N = 1,004)	Price	.346 (.144)	(N = 150) 1,199 (35)	(N = 150) 22.99 (1.03)	712 (365)
	Service	.321 (.139)	(N = 100) 1,222 (35)	(N = 100) 23.26 (1.04)	672 (358)
	Price and service	.385 (.148)	(N = 228) 1,176 (36)	(N = 228) 22.47 (1.05)	772 (374)

aIndicates the sample size of the selected/predicted customers.
bThe mean forecast of second-lifetime duration and profitability/month is reported only for those whose predicted reacquisition probability is greater than .5.
cIndicates the standard deviation of the sample.
dWe calculated the expected second-lifetime profitability as a product of reacquisition probability, second-lifetime duration (in months), and profitability per month for all customers.

than if they were reacquired with only a price or service offer (although the second-lifetime profitability per month does not differ much). For example, for the customers who defected for price-related reasons, their predicted second-lifetime duration is shorter when they are reacquired with a bundled price and service offer (M = 1,177) than when they are reacquired with a price offer (M = 1,203; t(2,011) = 21.04, $p < .001$) a service offer (M = 1,214; t(1,277) = 26.98, $p < .001$). We draw a similar conclusion for other groups of customers.

Although it is the firm's decision whether to focus on reacquisition rate or second-lifetime duration conditional on customer reacquisition, we suggest that the firm also consider the expected second-lifetime profitability to design the win-back strategy. For the customers who defected for price-related reasons, a price win-back offer yields the highest expected second-lifetime profitability compared with that yielded by a service-centric offer or a bundled price and service offer. However, a bundled price and service offer yields the highest expected second-lifetime prof-

itability for the customers who defected for service-related reasons or price- and service-related reasons.

Managerial Implications

Our findings have compelling implications for marketing practice. Customer win-back initiatives are an important part of customer relationship management strategies. We show that the first-lifetime experience is closely connected to reacquisition. In addition, we demonstrate how various service experiences and behaviors (i.e., referral behavior and complaint behavior) are indicators of the quality of the first-lifetime experience and how the customers who had positive first-lifetime experiences were more likely to accept a win-back offer (regardless of its contents). Although the reason for defection is a good indicator of one's experience and a good predictor of the likelihood of reacquisition, it also suggests how a reacquired customer will behave. Notably, in contrast to Stauss and Friege's (1999) caution that customers who left for price-related reasons are likely to quickly defect again, we find that cus-

tomers who left for price-related reasons can actually be attractive to the firm. Although they may not be as profitable per month as customers who left for service-related reasons, they stay longer in their second lifetime and thus are worth pursuing with win-back initiatives. Finally, firms should use caution when offering bundled price and service win-back offers and consider that although customers may be inclined to accept such offers, they may also defect again quickly.

An interesting question that arises from the simulation is whether there are instances when firms should focus primarily on reacquisition over duration and profitability. Although ultimately maximizing duration and profitability is certainly the goal, sometimes it may be advantageous to focus on reacquisition initially. In a saturated market, competition is intense. In such a scenario, we argue that a firm should strive to grow its subscriber base and gain market share, and therefore, reacquisition should be of utmost importance. However, if a firm develops radically new products and services (e.g., home security services, use of new technology), it should attempt to maximize profitability right away. Radically new products and services can be expensive to develop, and immediately maximizing the profitability of customers can help to recoup investments.

Limitations and Further Research

Although this study is conducted in a large-scale industry with a unique data set, there are some limitations we must address. First, due to limitations of the data, we did not consider customers' behavior with competitors while they had defected. For example, we did not directly observe whether a customer experienced service failures with a competitor or how the win-back offer compares with the offering from the competing firm. However, the focal firm of our study operates in a very competitive market in which competitors' prices are generally known and win-back offers are made to be attractive to customers. The relationship that defected customers develop with competitors will directly influence the probability of them returning to the focal firm. In addition, customers are highly likely to compare the focal firm's win-back offer with the competing offerings when deciding whether to switch back to the focal firm. With more comprehensive data, further research should take into account the competitor actions as well.

In addition, one should be cautious interpreting the findings from the simulation.[9] In our study, the firm sent out three distinct win-back offers without varying the depth of the promotional offer. A thorough simulation should also consider reference effects in price, service, and other attributes and switching costs that result from a contract with a competitor. We urge future studies with more comprehensive data to take these factors into consideration.

Second, in the context of our study, customers who are unhappy with competitors are apt to call the firm to ask about better prices and service packages so that they can return. We do not consider this customer win-back, because the customers are initiating their own return. Furthermore, this constitutes a very small number of customers (<1%) in relation to the number of customers to whom the firm extends win-back offers.

Third, in our data set, we observed only a single incidence of customer churn. However, in the telecommunications industry especially, it is possible for customers to churn multiple times. Customers with multiple churns are likely to be highly deal-prone. In addition, the customers who switch frequently are likely to have a better knowledge of the available offers on the market and may be more "picky" in responding to the win-back efforts of the firm. Further research could study the influence of multiple churns on the reacquisition probability of customers and their behavior in their subsequent "new" lives.

Fourth, the timing of the customers' first lifetime behavior may be informative in modeling win-back. For example, referrals that a customer made before he or she had any complaints or service recovery may have different implications from those made after a complaint or service recovery. However, our data do not contain this information, which is a limitation. Further research could examine the effects of the timing of these variables on customer reacquisition.

Finally, we used dummy variables to capture the nature of the win-back offer (whether the customer was offered a price discount, a service upgrade, or both). We did not capture the dollar amount of the discount or the exact content of the service upgrades because they did not vary greatly within the data set. However, future researchers may want to model the varying price discounts and service upgrade offers if such practices are followed and data are available.

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