PART II

CUSTOMER RELATIONSHIPS AND LOYALTY

2 Building long-term relationships between service organizations and customers

Ruth N. Bolton and Ranjit M. Christopher

Service organizations pursue long-term relationships with customers for three major reasons. First, relationships with customers are market-based assets that directly influence shareholder value by accelerating or increasing the magnitude of cash flows, lowering the volatility and vulnerability of cash flows, and increasing their residual value (Srivastava et al. 1998). Consequently, long relationships increase customer equity or the value of the customer base, as well as many other measures of financial performance (Hogan et al. 2002; Kumar and Shah 2009). Second, long relationships between a service organization and its customers imply high customer retention rates. Customer retention usually has the largest influence (vis-à-vis other components) on the value of the customer base (Gupta et al. 2004). Third, customers in long-term relationships exhibit favorable behaviors such as paying price premiums, increasing service usage, cross-buying and increasing share of customer or wallet (Bolton and Lemon 1999; Verhoef et al. 2001). These behaviors lead to better customer and employee role performance and to decreased costs to serve customers in some industries (Meuter et al. 2005).

However, long-term relationships must be managed so that they are beneficial to both the organization and its customers. Sometimes, as customers stay longer with a service organization, they may expect price discounts or better service—leading to increased costs to serve them and lower margins. Hence, customer equity may be increased by better managing individual customers' cash flows (through resource allocation decisions) or by altering the customer mix/portfolio to yield larger cash flows with the same degree of risk (Tarasi et al. 2013). For example, the budget allocation between customer acquisition and retention can be optimized by analyzing the cash flow patterns of customers (Blattberg and Deighton 1996; Rust et al. 2004; Tarasi et al. 2011).

Why do service managers and researchers study the length of the customer–organization relationship rather than studying (more broadly) relationship depth, breadth, strength or profitability? The key reason is that customer lifetime duration—and its inverse, customer churn or defection—is a significant and substantial problem for organizations in many service industries, including financial, health, utilities, telecommunications and publishing service sectors. Some service organizations face churn rates of 25–40 percent, implying that a firm's entire customer base can vanish within about five years unless these losses are offset by expensive customer acquisition efforts. Hence, there is intensive interest in how to predict and understand churn so that firms can better manage it (Neslin et al. 2006b). We do not assume that a long relationship is always a more valuable relationship (to either party). However, when all else is equal, a long relationship is preferable to a short relationship. Moreover, as this chapter will discuss, managers sometimes find customer lifetime duration a useful surrogate when estimates of customer value are difficult to make and error-prone.

Researchers have investigated how to achieve mutually beneficial long-term relationships from different theoretical perspectives, using a wide variety of research methods. This chapter reviews and synthesizes extant scholarly work by considering four broad questions:

1. What managerial and theoretical perspectives have enhanced our understanding of how to build long-term relationships between service organizations and their customers?
2. How should service researchers conceptualize and measure the duration of the relationship between a service organization and its customer?
3. What are the antecedents of long-term relationships between organizations and their customers?
4. How is the duration of the relationship between an organization and a customer linked to financial outcomes?

In this chapter, we emphasize studies that focus on customers' relationships with service organizations, as opposed to their relationships with manufacturers of goods, due to the many differences between goods and services (Vargo and Lusch 2004). For example, there is evidence to suggest that relationship marketing efforts have different effects on financial outcomes across service- and good-based exchange (Palmatier et al. 2006).We also highlight the contextual differences between business-to-business and business-to-consumer service relationship settings. We conclude by presenting research opportunities for future research.

THEORETICAL PERSPECTIVES ON MUTUALLY BENEFICIAL LONG-TERM RELATIONSHIPS

Co-creation of Value

Service emphasizes the exchange of intangible resources between the customer and the firm, leading to the co-creation of value and relationships (Prahalad and Ramaswamy 2004; Vargo and Lusch 2004). The co-creation of value occurs in all relationships: business-to-consumer (B2C) services such as healthcare, business-to-business (B2B) services such as solution selling, and derived services, whereby customers derive value from the service provided by a tangible good such as equipment (Zeithaml et al. 2006). Managers frequently focus on the value of relationships from the firm perspective, rather than from the customer perspective, because the allocation of resources to sustain a long-term relationship necessitates financial justification. Consequently, return on marketing investment has been a key focus in the literature (Rust et al. 1995, 2004).

Value of the Relationship to the Customer

In monopoly services, such as government or regulated industries (for example, utilities), customers do not have a choice of service provider. However, in most service industries, markets are competitive and customers can switch among alternative providers seeking value (or utility) after considering switching costs and perceived risks (Jones et al. 2002; Lee et al. 2001). Customers derive value from being in a long-term relationship because the organization learns how to consistently provide customized service that matches customer needs, yielding economic, social and psychological benefits (Bendapudi and Berry 1997; Gwinner et al. 1998). Moreover, there are costs to switching such as lost performance cost (for example, loyalty rewards, volume based discounts), search costs, set-up costs, and sunk costs (Burnham et al. 2003; Jones et al. 2002). These costs can be framed in terms of service convenience, conceptualized as "consumers' time and effort perceptions related to buying or using a service" (Berry et al. 2002, p. 4). Elements of service convenience vary by industry and reflect consumers' underlying purchase and consumption activities; they include decision convenience, access convenience, transaction convenience, benefit convenience and post-benefit convenience. In sum, when a customer can terminate his/her relationship with the organization, the lifetime duration of the relationship inherently reflects the value of the relationship.

Value of the Relationship to the Organization

The value of an individual customer is usually measured by customer lifetime value (CLV)—that is, the net present value of future cash flows from an individual customer over the (forecasted) duration of the relationship. Hence, the lifetime duration of the relationship between the customer and the service organization is a key component of the value of the relationship. Customer equity (the value of the customer base) is calculated by aggregating the discounted (net) cash flows of all customers including prospects (Berger and Nasr 1998). It is directly linked to shareholder value (Gupta et al. 2004). Customer lifetime value and customer equity should be calculated by decomposing cash flows into three key underlying sources—customer acquisition, retention and margins (derived from service usage and cross-buying patterns). These calculations should be made at the customer or segment level, rather than the firm level (Gupta and Lehmann 2005, pp. 7–9). Research has highlighted that the value of an individual customer is not independent of other customers in the organization's portfolio (Dhar and Glazer 2003; Johnson and Selnes 2004). Hence, any assessment of the value of an individual customer must take into account how the customers' cash flows co-vary with other customers (Tarasi et al. 2011).

Customer Relationship Management

An organization's relationship with a customer is an asset of the organization—an asset that is valuable, hard to imitate by competition and therefore a source of competitive advantage. In studies of how the customer asset is linked to stock market performance, customer satisfaction usually serves as a mediating construct (Kumar and Shah 2009). Service research has had a long-standing focus on customer relationships and customer loyalty (Berry 1983, 1995; Grönroos 1990). Relationship marketing seeks to create bonds with customers through financial programs (for example, discounts or economic incentives), social programs (for example, meals and entertainment) and structural programs that increase the buying firm's productivity or efficiency, thereby strengthening relationships (Berry 1980, 1995).

Researchers distinguish among three dimensions of behavior in customer-organization relationships (Bolton et al. 2004): length (that is, customer lifetime duration), depth (for example, service usage) and breadth (for example, number of products). In contrast, loyalty is typically considered to be an underlying predisposition of customers—that is, an (unobserved) psychological and composite construct which includes repeat patronage—length, depth or breadth—as one of its key elements. Numerous conceptualizations of customer loyalty exist in the literature that explicate the mechanisms underlying repeat patronage behavior (Dick and Basu 1994; Oliver 1999). In sum, it is important to emphasize that the lifetime duration of the relationship between the customer and the organization—that is, customer lifetime duration—is generally considered to be a critical dimension of the customer–organization relationship and of customer loyalty.

CONCEPTUALIZATION AND MEASUREMENT OF LONG-TERM RELATIONSHIPS

Customer Lifetime Duration

From a conceptual standpoint, the duration of a customer-organization relationship is the period of time encompassing all purchase and consumption activities between the two entities. Customers may use or buy services continuously or intermittently; they may refrain from buying a product or service for a period before resuming purchases or they may defect from a relationship until the organization wins them back (Hogan et al. 2003). They can also exhibit multiple loyalties—purchasing the same product/service from different organizations either simultaneously or sequentially (Bell et al. 2002; Berger and Nasr 1998). Hence, when forecasting the customer lifetime duration, it can be misleading to assume that a customer-organization relationship has ended after a brief lull in a purchase sequence. In fact, firms make special efforts to recapture these potentially "lost customers" (Thomas et al 2004).

Customer lifetime duration is not the same as the length of a customer-organization relationship at a given point in time. Customer lifetime duration is usually censored—that is, firms frequently do not observe the end of the relationship, it may still be ongoing.[1] In predictive models, this issue is addressed by computing a probability of whether the customer is "alive" as opposed to "gone for good" (Berger and Nasr 1998; Neslin et al 2006b; Venkatesan and Kumar 2004). For example, customer lifetime duration can be modeled as a hazard rate—that is, the probability that the customer remains in the relationship given that he or she has not already defected (Bolton 1998).

Both CLV and customer equity are composite measures that include other elements beyond the forecasted relationship length. Note that, when a composite measure is statistically linked to an individual customer metrics (for example, customer lifetime duration) or an organization-level metric (for example, shareholder value), it is important to ensure that '*ceteris paribus*' condition holds. The other elements that make up the CLV construct (for example, contribution margin) should remain constant or be accounted for in the statistical model.

Alternative Measures

Customer retention is closely associated with customer lifetime duration; it can be measured and modeled as the percentage of the total customer base that repurchases within a given time period or as the probability that an individual customer repurchases within a given time period (Bolton et al. 2006; Verhoef 2003). In the latter case, it can also be measured by its obverse: the likelihood of switching. While customer lifetime duration and customer retention metrics can be calculated from databases describing purchases over time (Bolton et al. 2004), it is frequently difficult to observe switching among competing service providers. Switching probabilities are sometimes obtained from survey data to calculate customer equity (Rust et al. 2004). The measurement and modeling of customer lifetime duration or retention should not be confused with methods for predicting the frequency, timing and (short-term) dollar value of customers' purchases (Reinartz and Kumar 2003; Schmittlein and Peterson 1994); the focal dependent variable and model specification are different—leading to different measures of customer value.

Many researchers use customers' self-reports of repeat purchase intentions and willingness to recommend to represent loyalty; this approach is incomplete but nevertheless useful in some circumstances (Lam et al. 2004; Sirdeshmukh et al. 2002; Zeithaml et al. 1996). For example, a combination of higher repeat purchase intentions and willingness to recommend to others may indicate that customers will be ambassadors of the service organization—so that new customer acquisition is less costly. However, self-reported intentions are only proxies for future behavior. For example, many studies have shown that purchase intentions are error prone measures of purchase behavior (Morwitz and Schmittlein 1992) and that their antecedents and consequences are quite different (for example, Mittal and Kamakura 2001; Seiders et al 2005).

ANTECEDENTS OF LONG-TERM RELATIONSHIPS

This section describes theoretical and empirical evidence concerning the factors that influence customers' lifetime durations. These include: service design and experience quality, customer satisfaction, service brand equity and commitment, price, loyalty programs, marketing channels and communications, competitor actions, social networks and customer characteristics.

Service Design and Experience Quality

Service quality is defined to be the customer's perception of excellence or superiority in service performance (Zeithaml 1988); it encompasses the design of the service and the customer's experience with the delivery process (Grönroos 1990). Service design and experience quality directly influence customer trial and repurchase intentions (for example, Rust et al. 1999; Zeithaml et al. 1996). In addition, excellent service recovery is required to forestall customer defection after a service failure (Smith and Bolton 1998; Smith et al. 1999).

Favorable service quality perceptions increase customer retention (Bolton et al. 2006; Boulding et al. 1993). In B2C and B2B markets, the level of service quality and its consistency over time influence the lifetime duration of the organization–customer relationship. Rust et al. (1999) showed how uncertainty in service quality is directly related to repurchase likelihood in consumer markets. Bolton et al. (2006) show that service quality experiences across multiple service contracts has a significant influence on a business customer's decision to renew a focal contract. They also found that customers who experienced a recent extreme and favorable change in quality tended to renew the contracts—extending the customer lifetime duration.

Customer Satisfaction

Satisfaction is a post-consumption assessment or fulfillment response and, unlike service quality, it has an emotional component. There is a large stream of research showing that more (less) satisfied customers have longer (shorter) relationships with service organizations in both B2C and B2B markets (Bolton 1998; Crosby and Stephens 1987; Lam et al. 2004). Notably, Bolton (1998) analyzed customer lifetime durations of cell phone users using a proportional hazard model and found that experienced customers weighed cumulative customer satisfaction more heavily in their decision to continue with the service relationship than did inexperienced customers. Consumers were less likely to defect from a relationship after a service failure when they had high levels of cumulative satisfaction suggesting that service organizations should use the early stages of the relationship to build cumulative satisfaction. The influence of a service failure or a negative event decreases customer lifetime duration more than a positive event increases it. This effect is exacerbated by the presence of a contrast effect such that customer defections are higher when customers experience high quality service prior to a service failure.

The links between customers' satisfaction levels and their purchase behavior are dynamic and reciprocal over time. For example, Bolton and Lemon (1999) found empirical support for a dynamic model where prior usage levels, customer expectations and price explain customer perception of fairness (payment equity) which then influences future usage levels of the service through satisfaction. This result implies, for example, that an increase in the likelihood of patronage is likely to positively influence subsequent customer satisfaction which (in turn) influences subsequent patronage behavior. Together, these studies suggest that service organizations may reap greater benefits during the later stages of the relationship with the customer than in the early stages—justifying investments in the satisfaction programs early in the relationship.

Service Brand Equity and Commitment

Service quality perceptions help build service brand equity (Berry 2000) and brand equity has been shown to influence customer retention and profit margins (Stahl et al. 2012). Brand knowledge improves acquisition, retention and profit margin, whereas brand differentiation in high profitability markets impedes acquisition and retention. This finding suggests that the customer's service experience is vitally important, whereas differentiation vis-à-vis competitors may (ultimately) lead organizations to serve a niche market, with smaller market share.

Relationship commitment is defined as a customer's desire to continue a valued relationship with a service brand or organization into the future (Dwyer et al. 1987; Moorman et al. 1993; Morgan and Hunt 1994).[2] In contrast with satisfaction (which requires a retrospective evaluation), commitment is future oriented. Researchers frequently distinguish between customer's calculative commitment based on economic factors and affective commitment based on non-economic factors (Gustafsson et al. 2005). In both B2B and B2C markets, high calculative commitment is positively associated with high switching costs; research has consistently shown that such costs (which deter switching) are associated with high customer retention (Jones et al. 2002; Lam et al. 2004; Lee et al. 2001). Situational variables can intervene between conation and action, so that this relationship is not evident in all service industries.

Verhoef (2003) showed that affective commitment was positively related to customer retention and customer share development for customers of an insurance company. However, Gustafsson et al. (2005) did not find these relationships for customers of a telecommunications company. One reason may be that customer emotions, especially attachment, may be more important in the insurance industry—where perceived risk is important—than in the telecommunications industry (Mende et al. 2013). Moreover, discrete consumer emotions, such as regret and disappointment, explain variance in future behaviors, such as complaining, switching, word-of-mouth and customer inertia, over and above the effect of (dis) satisfaction (Inman et al. 1997; Zeelenberg and Pieters 2004).

Affect and discrete emotions are important in B2B settings as well; for example, the social bonds created between organizations (or their employees) and customers can foster a longer relationship. Bolton et al. (2003) found that social bonds had a relatively larger effect on customers' satisfaction with company representatives (employees) and perceived value, whereas structural bonds created through the exchange of economic resources (financial or operational) have a relatively larger effect on their overall satisfaction with the organization. More recently, customer gratitude (Palmatier et al. 2009) and customer relationship orientation (Palmatier 2008b) have been identified as important contributors to relationship performance.

Price

Unlike switching costs, the relationship between price and the duration of the customer-organization relationship is complex (Bolton 1998; Bolton and Lemon 1999). Clearly, price plays an important role in customer acquisition; lower prices may induce customers to try a new service. However, if the customer finds the service organization's value proposition attractive and enters into a relationship, price subsequently becomes less salient unless there is a radical discrepancy in price vis-à-vis the competition or past prices. This observation is consistent with reference price theory (Bolton et al. 2003; Mazumdar et al. 2005). For example, business customers' price sensitivity (that is, elasticity) depends on service quality dimensions and market factors (Bolton and Myers 2003). Hence, service researchers do not always find a statistically significant relationship between price and the duration of the customer–organization relationship; instead, customers modify their buying patterns so that they can continue to derive value from the relationship.

Loyalty Programs

Loyalty programs can have a positive influence on customer lifetime durations, but they operate in complex ways. One reason for their success is well recognized; many loyalty programs offer economic incentives to stay with a service provider. However, we speculate that a customer who experiences a range of service experiences over time will become more knowledgeable and demanding thereby increasing the likelihood that he or she will defect to a competing service brand. Indeed, many marketing programs, including loyalty programs, have failed to increase customer retention leading some managers to question the link between marketing actions and business performance (Lehman 2004). However, there is some evidence that repurchase rates increase for customers participating in a loyalty program even after accounting for the effects of short-term promotions such as email coupons, pricing changes or discounts in shipping fees. One explanation for this finding is that loyalty programs encourage customers to take future benefits into consideration when making purchase decisions. Supporting this notion, Lewis (2004) found that a dynamic multi-period decision-making model fits customer purchase patterns better than static models in an online grocery and drugstore setting.

Using cross-sectional and time-series data from a global financial services company, Bolton et al. (2000) investigated how a loyalty rewards program influences customer evaluations, repeat purchase intentions and behavior. Their results show that members in the loyalty reward program overlook or discount negative evaluations of the company vis-à-vis competition. In other words, loyalty programs—especially programs that offer noneconomic rewards—serve to mitigate future negative experiences in an ongoing relationship. They speculate that members of the loyalty rewards program may perceive that they are getting better quality and service for their price. Of course, competing service suppliers can mimic such loyalty programs and eliminate any differential advantage quickly. Indeed, Meyer-Waarden (2007) finds a decrease in customer lifetime durations when multiple service organizations within the same geographic location have loyalty programs. Recent research suggests that service organizations should customize non-economic rewards within loyalty programs for "relationship tiers" or segments of the customer base to be successful (Drèze and Nunes 2009; Kivetz and Simonson 2003) and that they should carefully monitor subsequent purchase behavior to evaluate their effectiveness.

Marketing Channels and Communications

Channel usage patterns potentially influence customer relationship durations. For example, when the length of a customer's lifetime is conditional on customer acquisition (which varies across channels), Thomas (2001) shows that a Tobit model with selection will perform better than a standard Tobit model in predicting future purchase behavior. Customers may use different marketing channels as they progress through need recognition, information search, purchase, and after-sales service. For example, a consumer might conduct extensive online search, purchase at the closest store and then telephone to obtain after-sales support. Or, channel preferences can be based on previous purchase experiences in the category or other categories. Thus, a service organization that lacks a customer's preferred channel may risk losing patronage.

Channel coordination requires a thorough understanding of the channel usage patterns of existing customers. Neslin et al. (2006a) suggest that complete integration of customer data across channels is not optimal based on return on investment from data integration technology and processes. Service organizations are better able to manage segment-based variation in channel usage. For example, customer role clarity, motivation, and ability influence customers' adoption and use of self-service technology (Meuter et al. 2005). Channel coordination strategies such as information-only channels aided by offline store integration can aid relationship depth (more store visits) contingent on product category and consumer segment (Montaguti et al. 2012; Pauwels et al. 2011).

The ways that marketing channels influence customer lifetime duration are not well understood, so managers tend to use proxy measures to guide the allocation of effort to customers and channels. For example, Venkatesan and Kumar (2004) use short-run forecasts of CLV to guide the allocation of customer contacts through different marketing channels to maximize profits. Channel performance is typically assessed by measuring sales growth, profitability, upgrades, cross-buying and customer lifetime duration. There is some evidence that adding new channels induces sales growth either due to increased customer loyalty, self-selection or marketing efforts (Ansari et al. 2008). There is evidence that some organizations suffer in terms of profitability, customer service, and customer retention due to duplication or cannibalization of existing channels (Godfrey et al. 2011; Lee and Grewal 2004). More research is required on the performance of channel additions to reconcile these conflicting findings.

There are many studies of how marketing communications influence purchase patterns for consumer goods, especially in a direct marketing context (for example, Thomas and Sullivan 2005; Venkatesan and Kumar 2004). However, there is substantially less research on marketing communications by service organizations. It seems likely that the effects of the organization's marketing communications on customer lifetime durations are much smaller for services than for goods because customer satisfaction and perceptions of service quality play such an important role for services. On the other hand, there are many more instances of customer-initiated contacts with service suppliers that offer opportunities to sustain and expand customer-organization relationships (Bowman and Narayandas (2001).

Competitor Actions

There is very little research on the effects of competitor actions on customer lifetime durations for service organizations (Keavney 1995). The primary reason is that most firms' databases do not capture information about competitors' actions. At best they describe the service organization's own actions over time. This omission is a handicap to forecasting customer lifetime durations and managing customer relationships because firms frequently target their competitors' customers with appeals designed to encourage switching behavior. In their "return on marketing" model, Rust et al. (2004) address this challenge by incorporating survey data that describes switching behavior over time in response to marketing actions.

Social Networks

Despite the rich literature on the role of social influence in the product diffusion and individual adoption literature, research on how social network dynamics influence customer retention is sparse. In a B2B context, Palmatier (2008a) uses social network analysis to look at the structural ties between two service organizations to predict relationship success. In a B2C context, Nitzan and Libai (2011) found that the influence of social networks on customer defection is as much as—if not higher than—its influence on adoption. Defections within close networks increase the defection hazard rate by 80 percent. Using the call database of a telecommunication services company to reconstruct personal networks of customers, they find that loyal customers tend to stay with the provider despite defection within their personal networks. Curiously, the rate of defection is not as pronounced when their network members have high connectivity.

These findings indicate that customers may not be imitating their social circle but (instead) value the decisions of their close circle of friends. This pattern of behavior is different from findings concerning the influence of highly connected network members (hubs) on new product adoption, in which hubs tend to increase the speed and volume of subsequent adoption in the network (Goldenberg et al. 2009). Also, the influence of social network effects on defection rates decreases exponentially over time, indicating that service organizations managing highly connected customers should be wary of the immediate reaction of disgruntled customers as well as long-term word-of-mouth effects (Nitzan and Libai 2011). Negative word of mouth typically has a greater influence than positive word of mouth (Goldenberg et al. 2007).

Customer Characteristics

Certain characteristics of the customer increase the odds of a relationship surviving for longer periods, including demographics (for example, age), personal characteristics (for example, attachment style) and relational preferences (for example, long-term orientation). Consumers' age is linked to the level and variation of consumption and purchases through life events (Zeithaml 1985), depending on the product category (Namias 1960). Consumers' attachment styles influence their preferences for closeness which in turn increases their propensity to be loyal to the service organization and cross-buy (Mende et al. 2013). Consumers' relational preferences are good predictors of repeat purchase intentions and consumer loyalty for B2C services (Godfrey et al. 2011; Price and Arnould 1999). For B2B services, Ganesan (1994) shows that some business customers have a long-term orientation to buyer–seller relationships that is closely related to mutual dependence and trust. He found that these two constructs are influenced by uncertainty in the business environment, the presence of transaction specific investments, service organization reputation, and satisfaction with prior business dealings. Not surprisingly, the same variables influence other aspects of customers' purchase behavior, including their cash flow levels and variability (Tarasi et al. 2013).

LINKING CUSTOMER LIFETIME DURATION TO FINANCIAL OUTCOMES

Importance of Customer Lifetime Duration to CLV and Customer Equity

In many service industries, it is more costly to acquire new customers than to retain existing customers—especially in mature markets or when discount rates are low. In these circumstances, an emphasis on customer retention (as opposed to other components of CLV) is entirely appropriate (Gupta and Lehmann 2005). For these reasons, many service organizations focus on improving customer retention (and its key antecedents, satisfaction and service quality) rather than the other sources that feed into CLV. Indeed, an emphasis on customer retention is a common feature across all approaches to managing customer equity (Kumar and George 2007). Hence, service organizations may find it useful to use market segmentation methods that take into account the forecasted length of the relationship, as well as customers' purchasing patterns (Berger et al. 2002; Tarasi et al. 2013; Wedel and Kamakura 1999)

The potential danger of focusing solely on customer lifetime duration is clear: it overlooks potential new customers. Hence, managers usually prefer to calculate CLV. This calculation requires forecasts of three components or sources of cash flows over customer lifetimes: customer acquisition, duration (or retention) and gross margin (Berger and Nasr 1998; Gupta et al. 2004). Note that gross margin reflects the effect of service usage rates and cross-buying of premium services. This approach can be used to forecast (under different scenarios) the cash flows derived from individual customers or customer segments and (ultimately) to identify the optimal allocation of resources to the customer base (Bolton et al. 2004). Berger et al. (2006) emphasize that these components must be forward-looking, rather than based on historical data. However, it can be challenging to develop forecasts of these three components for an individual customer or customer segment over a long-term time horizon. However, practical approaches exist. For example, Tirenni et al (2007) describe Finnair's decision support system to manage CLV and customer equity. Dynamic programming algorithms are used to identify market actions that will encourage customers to repurchase and cross-buy, thereby optimizing CLV. Monte Carlo simulations are used to evaluate the financial impact of different marketing plans.

Customer acquisition, customer lifetime duration, service usage rates and cross-buying depend on firm actions, competitive behavior and market conditions (Hogan et al. 2002). Hence, there will be many different forecasts of CLV for a customer or segment generated by different assumptions about future conditions (for example, Rust et al. 2004, 2011). Nevertheless, it is not uncommon for forecasts of CLV and/or its components to be based on assumptions of fixed marketing programs, deterministic retention rates and/or stable switching patterns among competitive offerings. As discussed earlier, there is considerable evidence that customer lifetime durations depend on these antecedents—which change over time—so approaches to estimating CLV that ignore them are likely to perform poorly (except in the very short run). For the same reason, it is not appropriate to build a statistical model to predict CLV solely based on historical data unless all other components of CLV (and their antecedents) are fixed over time (which is likely to be true only in the very short term).

Customer Lifetime Durations and Resource Allocation Methods

We have emphasized that service organizations should allocate expenditures by forecasting the components of CLV of individual customers (including lifetime durations) under alternative scenarios, aggregating across customers, and identifying the scenario or set of organizational actions that optimizes shareholder value (Bolton et al. 2004; Rust et al. 1995, 2004). Recent research has emphasized that optimization of shareholder value is not the same as maximizing the CLV of an individual customer or group of customers. Instead, the service organization must manage customers' cash flow streams over time and across the entire customer portfolio to optimize risk and return (Tarasi et al 2011, 2013). This approach seems "doable" but it can be challenging to move from forecasts of behavioral components of CLV under different scenarios to forecasting customer equity under different scenarios including characterizing risk and return rates. These challenges are especially great for service organizations because relational behaviors, including customer lifetime durations, are likely to depend on service operations, human resources and marketing decisions. See Tirenni et al. (2007) and Niraj et al. (2001) for interesting applications of these notions in practical contexts.

Instead, some service organizations segment the customer base according to estimated CLV (where forecasts of customer lifetime durations are a major component) and allocate expenditures on customer satisfaction, quality improvements, provision of loyalty instruments and so forth to more valuable customers (Kumar et al. 2009). This approach seems attractive for several reasons. First, forecasts of CLV, which incorporate customer lifetime durations, are better predictors of short-run future profitability of individual customers than other popular metrics, such as recency/frequency/monetary (RFM) or past customer value (PCV) metrics (Venkatesan and Kumar 2004). Second, estimated CLV provides a natural upper limit on expenditures allocated to a given customer (Gupta and Lehmann 2005). Third, forecasts of CLV extrapolate from past purchase behaviors, which are generally a good predictor of future purchase behavior. Fourth, relational behaviors, such as customer lifetime durations, usage and cross-buying, seem likely to be interrelated. For example, Kumar and Reinartz (2003) found that prior cross-buying and spending levels are associated with customer purchases of goods in a direct marketing context, as well as local population density and income.

Unfortunately, there are numerous difficulties in estimating CLV based on historical data (Bell et al. 2002). However, it is tempting for many firms to build predictive models of profitability or cash flows from individual customers without considering their underlying sources. Since the antecedents of these relational behaviors are quite different, these models will only perform well under *ceteris paribus* conditions. For this reason, we advise caution in utilizing these approaches.

A RESEARCH AGENDA FOR UNDERSTANDING CUSTOMER LIFETIME DURATIONS

In this section, we conclude by identifying some key research questions concerning mutually beneficial long-term relationships between customers and service organizations. They are organized under four major categories: customer engagement and social network effects, interdependence in customer relational behaviors, the implications of customer lifetime durations for customer portfolio analyses, and jointly managing service operations and long-term relationships with customers.

Customer Engagement and Social Networks

Digital and social-media use are influencing consumers' identity formation, their expectations regarding service, formation of habits, engagement with brands and firms, participation in value co-creation, brand loyalty, purchase behavior and lifetime value, and (ultimately) the value of the firm (Bolton et al. 2013). Hence, many service organizations have become interested in how customer engagement behaviors foster long-term relationships with customers. Customer engagement behaviors include non-purchase behaviors such as word-of-mouth activity, recommendations, helping other customers, blogging, writing reviews, and engaging in legal action (van Doorn et al. 2010). These behaviors may differ on the basis of valence (positive or negative), form, scope, nature of its influence, and customer goals. Researchers are only beginning to explore how customer engagement influences purchase behaviors, including customer lifetime durations (Bolton et al. 2013).

Managers' understanding of customer engagement is vital to understanding and managing long-term relationships because customers' experiences can be triggers for staying or defecting from a relationship (Gustafsson et al. 2005; Keavney 1995). There are many opportunities for service organizations to encourage positive customer engagement and forestall negative customer engagement. They can create online platforms to monitor and manage customer-to-customer and customer–organization interaction, empower frontline employees to ensure timely complaint management (for example, refunds and apologies), provide social incentives to customer support groups, and so forth (van Doorn et al. 2010). At a strategic level, service innovation in this domain is likely to influence service organizations' decisions about customization and productivity (Rust and Ming-Hui 2012), especially how resources are allocated between labor and automation. It also has implications for the design and implementation of interactive services including location-based, retail and self-service technology (Berry et al. 2010).

These observations raise several challenges. Predictions of customers' future cash-flow streams require the simulation of how dynamic events unfold over time. There is some evidence that more sophisticated dynamic models perform better than naive models based on historical data (Rust et al. 2011). However, the differential treatment of customers, who may interact with each other, brings with it unique modeling and forecasting problems. As we have noted earlier, there are (as yet) few studies that incorporate social network effects into models of customer lifetime durations or CLV or long-term cash flows.

Interdependence in Customers' Relational Behaviors

A customer's decision to stay (or defect from) in a relationship with a service organization evolves alongside his or her decisions about service usage, as well as upgrading and cross-buying products. As discussed earlier, there is statistical evidence that the channel of acquisition influences subsequent customer lifetime durations in B2C direct marketing settings. This issue also is relevant in B2B settings. For example, service organizations often highlight long-term relationships to win new contracts because long relationships signal organizational capabilities and commitment to potential and existing customers. However, little is known about this phenomenon. Since we know that relational behaviors influence each other over time, we can raise the related research question, "What is the influence of long-term relationship on the service organization's ability to acquire new customers?"

We speculate that service managers and researchers seldom use forecasts of underlying behavioral components to forecast CLV and customer equity due to a particularly vexing problem: customers' relational behaviors are likely to be correlated (for example, Reinartz and Kumar 2003, p. 94). Why? First, customer lifetime durations, service usage, and cross-buying behavior share some (but not all) of the same antecedents (for example, satisfaction) albeit operating in different ways (Bolton et al. 2004). Second, these behaviors are predicted using models estimated based on the same historical data, where the error terms are likely to be correlated due to measurement error or model specification error. For example, competitors' marketing actions are omitted from most models because they are not readily observed. Third, it is possible that relational behaviors are simultaneously determined. For example, the decision to upgrade a service contract may depend on the decision to repurchase from the same supplier (or purchase other contracts) and vice versa (Bolton et al. 2006).[3]

Future research should rigorously examine these issues by specifying and estimating a system of equations to describe customer relational behaviors that account for these complex phenomena. Instead, it is common practice for researchers to include past purchase behavior (for example, current relationship length) as covariates in models of customer retention, usage, cross-buying and profitability that serve as surrogates for unobserved variables. These approaches are used because they make difficult problems tractable, but better models are needed. In particular, the availability of well-managed customer relationship management databases has enabled more accurate measures of CLV enabling service organizations to allocate marketing resources and treat customers differentially based on their estimated worth. Yet, the consumer response to differential treatment is not well studied and is an important area of future research.

Customer Lifetime Durations in Customer Portfolio Analysis

To optimize shareholder value, the return from an investment by a service organization must be commensurate with its risk. Up to this point, we have (usually) discussed customer lifetime duration and CLV under the implicit assumption that the goal of service organizations is to optimize returns from a customer or a group of customers over the long term. Our discussion has not considered the risk associated with these returns over the customer lifetime except that we have explicitly considered the risk of customer defection and discounted cash flows using a risk-adjusted cost of capital.

In contrast, the emerging research on customer portfolio management offers an approach to ensuring long-term profitable relationships that considers risk as well as return (Tarasi et al. 2011, 2013). It differs from earlier approaches in two ways. First, its goal is to minimize risk for a targeted level of return from a customer portfolio, thereby optimizing customer equity and shareholder value. Second, it takes into account variability in cash flows over the customer's lifetime arising from variation in customers' service consumption patterns, purchase behaviors and organizational processes that support them. Consequently, management of long-term relationships begins with targeting customers who have low cash flow variability, followed by managerial interventions to reduce cash flow variability within the extant customer base and (ultimately) optimal allocation of resources to different segments of the customer.

Tarasi et al. (2013) analyze customer data from two service organizations and find robust evidence that managerial intervention can reduce cash flow variability without adversely affecting returns. In their statistical model, variability in customers' cash flows was explained by differences in satisfaction levels, relationship characteristics (length, depth, and breadth) and demographics. Simulations showed that customer satisfaction programs increase returns and lower risk and loyalty programs that emphasize economic rewards (as opposed to social rewards) tend to increase risk without commensurate returns. Beyond managing the cash flows of existing customers over time, firms can allocate resources to specific customers and market segments (including new customers) to yield future cash flows that complement each other and thereby decrease the variability of future cash flows derived from the entire customer base (Tarasi et al 2011).

Note that customer lifetime durations are very important in assessing the value of the customer portfolio, just as they are for CLV. The primary reason is that the risk and return from cash flows is calculated over a time horizon that incorporates customers' lifetimes. Yet, a customer portfolio is different from a portfolio of financial assets which are bought and sold in well-defined markets. Acquiring customers and managing the mix of customers in a portfolio is not a mechanical process. Implementation of customer portfolio management—taking into account what is known about creating, maintaining and enhancing customer relationships over their lifetimes—poses many challenges.

There are many researchable issues concerning how long relationships contribute to the value of the customer portfolio. One reason is that (unlike many mature B2C markets) growth in B2B services is an important component of CLV. Consideration of the lifecycle stage of new business customers, their business model, and growth potential of their respective markets can result in significant differences in CLV computations. For example, how does a long-term B2B relationship help a service organization expand into new business areas? Small B2B service organizations that focus on expansion learn from their relationships with their large customers over time and yet, we do not have much empirical work concerning the benefits (from a customer equity standpoint) of organizational learning within these relationships. Or, how can organizations identify and persist in relationships with customers who a likely to see growth in their respective markets—despite short-term losses early in the relationship? In sum, more research is needed on customer-organization relationships in growing (as opposed to mature) markets.

Not all B2B relationships are successful. Sometimes a service organization must decide whether to make a service recovery or terminate a relationship. Such a scenario leads to the following research questions: Do long-term relationships create externalities that delay successful termination or adaptation of a relationship? Since it is not uncommon for a broad B2B service relationship to comprise numerous underlying projects that may be both functionally and administratively independent, how does structure entail complexities in the recovery/termination of a poorly performing relationship? Do long-standing relationships entail managerial inertia, path dependencies and the familiar problem of escalation of commitment?

Jointly Managing Service Operations and Long-term Relationships

Recent research on customer portfolio analysis has emphasized that variability in cash flows must be managed, as well as returns (Tarasi et al. 2011, 2013). This goal dovetails with a long-standing emphasis by experts in service operations management on reliability or consistency in service quality and service processes (Grönroos 1990, 1998). For example, service organizations must match supply and demand for perishable services, coordinate simultaneous production and consumption, and customize service to heterogeneous customers. Moreover, service organizations are more likely to be successful when they are effective in managing consumption processes so that they are less variable (and consequently cash flows are less variable).

These linkages between service operations management and customer portfolio management introduce several new questions. It has long been hypothesized that long-term customers are less costly to serve despite mixed results in empirical examinations. For example, a heavy cost is usually incurred in the initial set up of processes that ensure smooth functioning of a B2B relationship whereas the cost of relationship maintenance seems likely to go down as the relationship grows. However, more research is required to understand this notion of "relationship efficiency" and its potential enablers as well as their implications for service management and long-term relationships.

Service management includes human resource challenges, in addition to the operations and marketing challenges. There is a general belief that "internal marketing" (to employees who are linked to end-user customers) can sustain and extend customer lifetime durations. Hence, empirical examination of the effect of internal marketing efforts (that seek to modify the service employees' in-role and extra-role behavior) on customer lifetime duration could be very interesting.

CONCLUDING REMARKS

We hope this review will stimulate service researchers to identify and develop service innovations that encourage mutually beneficial relationships for consumers, organizations and society. The marketplace, the workplace and society are changing rapidly—and there are many unanswered questions about how to create, sustain and enhance relationships between customers and service organizations. We encourage service researchers to investigate the new research domains that we have identified in this article. We believe the answers can be helpful to consumers, managers, organizations and public policy makers.

NOTES

1. Service organizations should also be very careful when they investigate customer lifetime durations. Many organizations purge their databases of customers who have defected. Hence, the data do not describe representative sample of customers' lifetime durations. Customers who defected long ago are underrepresented. Hence, statistical analyses of the purged data—intended to understand the factors that influence customer lifetime durations—must take this missing information into account.
2. In a B2B context, Palmatier et al. (2007) compare commitment–trust theory, a relational norms perspective, dependence theory, transaction cost economics and the resource-based view, using a longitudinal empirical analysis. They conclude that these approaches can be unified under the resource-based view, where the relationship can be considered an idiosyncratic asset and dependence asymmetry, interdependence, relational norms and communication predict relationship success. Relationship success is usually measured using financial performance, inter-service organization cooperation, conflict, and relationship duration.
3. This same issue arises in models of purchase incidence, brand choice and quantity (Gupta 1988).

REFERENCES

Ansari, Asim, Carl F. Mela, and Scott A. Neslin (2008), "Customer channel migration," *Journal of Marketing Research*, **45** (1), 60–76.

Bell, David, John Deighton, Werner J. Reinartz, Roland T. Rust, and Gordon Swartz (2002), "Seven barriers to customer equity management," *Journal of Service Research*, **5** (1), 77–85.

Bendapudi, Neeli and Leonard L. Berry (1997), "Customers' motivations for maintaining relationships with service providers," *Journal of Retailing*, **73** (1), 15–37.

Berger, Paul D. and Nada I. Nasr (1998), "Customer lifetime value: marketing models and applications," *Journal of Interactive Marketing*, **12** (Winter), 17–30.

Berger, Paul D., Ruth N. Bolton, Douglas Bowman, Elten Briggs, V. Kumar, A. Parasuraman and Terry Creed (2002), "Marketing actions and the value of customer assets: a framework for customer asset management," *Journal of Service Research*, **5** (1), 39–54.

Berger, Paul D., Naras Eechambadi, Morris George, and Donald R. Lehmann (2006), "From customer lifetime value to shareholder value: theory, empirical evidence and issues for future research," *Journal of Service Research*, **9** (2), 156–67.

Berry, Leonard L. (1980), "Services marketing is different," *Business*, **30** (3), 24–9.

Berry, Leonard L. (1983), "Relationship marketing," in Leonard L. Berry, G. Lynn Shostack and Gregoory Upah (eds), *Emerging Perspectives on Services Marketing*, Chicago, IL: American Marketing Association, pp. 25–8.

Berry, Leonard L. (1995), "Relationship marketing of services--growing interest, emerging perspectives," *Journal of the Academy of Marketing Science*, **23** (4), 236–45.

Berry, Leonard L. (2000), "Service brand equity," *Journal of the Academy of Marketing Science*, **28** (1), 128–37.

Berry, Leonard L., Ruth N. Bolton, Cheryl H. Bridges, Jeffrey Meyer, A. Parasuraman and

Kathleen Seiders (2010), "Opportunities for innovation in the delivery of interactive retail services," *Journal of Interactive Marketing*, **24** (2), 155–67.
Berry, Leonard L., Kathleen Seiders and Dhruv Grewal (2002), "Understanding service convenience," *Journal of Marketing*, **66** (3), 1–17.
Blattberg, Robert C. and John Deighton (1996), "Manage Marketing by the customer equity test," *Harvard Business Review*, **74** (July-August), 136–44.
Bolton, Lisa E., Luc Warlop, and Joseph W. Alba (2003), "Perceptions of price (un) fairness," *Journal of Consumer Research*, **29** (4), 474–91.
Bolton, Ruth N. (1998), "A dynamic model of the duration of the customer's relationship with a continuous service provider: the role of satisfaction," *Marketing Science*, **17** (1), 45–65.
Bolton, Ruth N. and Katherine N. Lemon (1999), "A Dynamic model of customers' usage of services: usage as an antecedent and consequence of satisfaction," *Journal of Marketing Research*, **36** (2), 171–86.
Bolton, Ruth N. and Matthew B. Myers (2003), "Price-based global market segmentation for services," *Journal of Marketing*, **67** (3), 108–28.
Bolton, Ruth N., P.K. Kannan, and Matthew D. Bramlett (2000), "Implications of loyalty program membership and service experiences for customer retention and value," *Journal of the Academy of Marketing Science*, **28** (1), 95–108.
Bolton, Ruth N., Katherine N. Lemon and Matthew D Bramlett (2006), "The effect of service experiences over time on a supplier's retention of business customers," *Management Science*, **52** (12), 1811–23.
Bolton, Ruth N., Katherine N. Lemon and Peter C. Verhoef (2004), "The Theoretical underpinnings of customer asset management: a framework and propositions for future research," *Journal of the Academy of Marketing Science*, **32** (3), 271–92.
Bolton, Ruth N., A. Parasuraman, Ankie Hoefnagels, Nanne Migchels, Sertan Kabadayi, Thorsten Gruber, Yuliya Komarova Loureiro and David Solnet (2013), "Understanding generation Y and their use of social media: a review and research agenda," *Journal of Service Management*, **24** (3), 245–67.
Bolton, Ruth N., Amy K. Smith and Janet Wagner (2003), "Striking the right balance: designing service to enhance business-to-business relationships," *Journal of Service Research*, **5** (4), 271–91.
Boulding, William, Ajay Kalra, Richard Staelin and Valerie A. Zeithaml (1993), "A dynamic process model of service quality: from expectations to behavioral intentions," *Journal of Marketing Research*, **30** (1), 7–27.
Bowman, Douglas and Das Narayandas (2001), "Managing customer-initiated contacts with manufacturers: the impact on share of category requirements and word-of-mouth behavior," *Journal of Marketing Research*, **38** (3), 281–97.
Burnham, Thomas A., Judy K. Frels and Vijay Mahajan (2003), "Consumer switching costs: a typology, antecedents, and consequences," *Journal of the Academy of Marketing Science*, **31** (2), 109–26.
Crosby, Lawrence A. and Nancy Stephens (1987), "Effects of relationship marketing on satisfaciton, retention and prices in the life insurance industry," *Journal of Marketing Rsearch*, **24** (4), 404–11.
Dhar, Ravi and Rashi Glazer (2003), "Hedging customers," *Harvard Business Review*, **81** (May), 86–92.
Dick, Alan. S. and Kunal Basu (1994), "Customer loyalty: toward an integrated conceptual framework," *Journal of the Academy of Marketing Science*, **22** (2), 99–113.
Drèze, Xavier and Joseph C. Nunes (2009), "Feeling superior: the impact of loyalty program structure on consumers' perceptions of status," *Journal of Consumer Research*, **35** (6), 890–905.
Dwyer, F. Robert, Paul H. Schurr and Sejo Oh (1987), "Developing buyer-seller relationships," *Journal of Marketing*, **51** (2), 11–27.
Ganesan, Shankar (1994), "Determinants of long-term orientation in buyer-seller relationships," *Journal of Marketing*, **58** (2), 1–19.

Godfrey, Andrea, Kathleen Seiders and Glenn B. Voss (2011), "Enough is enough! The fine line in executing multichannel relational communication," *Journal of Marketing*, **75** (4), 94–109.
Goldenberg, Jacob, Barak Libai, Sarit Moldovan and Eitan Muller (2007), "The NPV of bad news," *International Journal of Research in Marketing*, **24** (3), 186–200.
Goldenberg, Jacob, Sangman Han, Donald R Lehmann and Jae Weon Hong (2009), "The role of hubs in the adoption process," *Journal of Marketing*, **73** (2), 1–13.
Grönroos, Christian (1990), *Service Management and Marketing*, Toronto: Lexington Books.
Grönroos, Christian (1998), "Marketing services: the case of a missing product," *Journal of Business and Industrial Marketing*, **13** (4/5), 322–38.
Gupta, Sunil (1988), "Impact of sales promotions on when, what, and how much to buy," *Journal of Marketing Research*, **25**, (4), 342–55.
Gupta, Sunil and Donald Lehmann (2005), *Managing Customers as Investments: The Strategic Value of Customers in the Long Run*, Upper Saddle River, NJ: Wharton School.
Gupta, Sunil, Donald Lehmann and Jennifer Ames Stuart (2004), "Valuing Customers," *Journal of Marketing Research*, **41** (1), 7–18.
Gustafsson, Anders, Michael D. Johnson and Inger Roos (2005), "The effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention," *Journal of Marketing*, **69** (4), 210–18.
Gwinner, Kevin P., Dwayne D. Gremler and Mary Jo Bitner (1998), "Relational Benefits in services industries: the customer's perspective," *Journal of the Academy of Marketing Science*, **26** (2), 101–14.
Hogan, John E., Donald R. Lehmann, Maria Merino, Rajendra K. Srivastava, Jacquelyn S. Thomas and Peter C. Verhoef (2002), "Linking customer assets to financial performance," *Journal of Service Research*, **5** (1), 26–38.
Hogan, John E., Katherine N. Lemon and Barak Libai (2003), "What is the true value of a lost customer?," *Journal of Service Research*, **5** (3), 196–208.
Inman, J. Jeffrey, James S. Dyer and Jianmin Jia (1997), "A generalized utility model of disappointment and regret effects on post-choice valuation," *Marketing Science*, **16** (2), 97–111.
Johnson, Michael D. and Fred Selnes (2004), "Customer portfolio management: toward a dynamic theory of exchange relationships," *Journal of Marketing*, **68** (April), 1–17.
Jones, Michael A., David L. Mothersbaugh and Sharon E. Beatty (2002), "Why customers stay: measuring the underlying dimensions of services switching costs and managing their differential strategic outcomes," *Journal of Business Research*, **55** (6), 441–50.
Keavney, Susan M. (1995), "Customer switching behavior in service industries: an exploratory study," *Journal of Marketing*, **59** (2), 71–82.
Kivetz, Ran and Itamar Simonson (2003), "The idiosyncratic fit heuristic: effort advantage as a determinant of consumer response to loyalty programs," *Journal of Marketing Research*, **40** (4), 454–67.
Kumar, V. and Morris George (2007), "Measuring and maximizing customer equity: a critical analysis," *Journal of the Academy of Marketing Science*, **35**, 157–71.
Kumar, V. and Denish Shah (2009), "Expanding the role of marketing: from customer equity to market capitalization," *Journal of Marketing*, **73** (6), 119–36.
Kumar, V., Ilaria Dalla, J. Andrew Petersen and Denish Shah (2009), "Reversing the logic: the path to profitability through relationship marketing," *Journal of Interactive Marketing*, **23** (2), 147–56.
Lam, Shun Y., Venkatesh Shankar, M. Krishna Erramilli and Bvsan Murthy (2004), "Customer Value, satisfaction, loyalty, and switching costs: an illustration from a business-to-business service context," *Journal of the Academy of Marketing Science*, **32** (3), 293–311.
Lee, Jonathan, Janghyuk Lee and Lawrence Feick (2001), "The impact of switching costs on the customer satisfaction-loyalty link: mobile phone service in France," *Journal of Services Marketing*, **15** (1), 35–48.
Lee, Ruby P. and Rajdeep Grewal (2004), "Strategic responses to new technologies and their impact on service organization performance," *Journal of Marketing*, **68** (4), 157–71.

Lehmann, Donald R. (2004), "Linking marketing to financial performance and firm value," *Journal of Marketing*, **68** (4), 73–5.
Lewis, Michael (2004), "The influence of loyalty programs and short-term promotions on customer retention," *Journal of Marketing Research*, **41** (3), 281–92.
Mazumdar, Tridib, S.P. Raj and Indrajit Sinha (2005), "Reference price research: review and propositions," *Journal of Marketing*, **69** (4), 84–102.
Mende, Martin, Ruth N. Bolton and Mary Jo Bitner (2013), "Decoding customer–firm relationships: how attachment styles help explain customers' preferences for closeness, repurchase intentions, and changes in relationship breadth," *Journal of Marketing Research*, **50** (1), 25–142.
Meuter, Matthew L., Mary Jo Bitner, Amy L. Ostrom and Stephen W. Brown (2005), "Choosing among alternative service delivery modes: an investigation of customer trial of self-service technologies," *Journal of Marketing*, **69** (2), 61–83.
Meyer-Waarden, Lars (2007), "The effects of loyalty programs on customer lifetime duration and share of wallet," *Journal of Retailing*, **83** (2), 223–36.
Mittal, Vikas and Wagner A. Kamakura (2001), "Satisfaction, repurchase intent, and repurchase behavior: investigating the moderating effect of customer characteristics," *Journal of Marketing Research*, **38** (1), 131.
Montaguti, Elisa, Scott A. Neslin and Sara Valentini (2012), "Do marketing campaigns produce multichannel buying and more profitable customers? A field experiment," Marketing Science Institute report, 12–112.
Moorman, Christine, Rohit Deshpande and Gerald Zaltman (1993), "Factors affecting trust in market research relationships," *Journal of Marketing*, **57** (1), 81–101.
Morgan, Robert M. and Shelby D. Hunt (1994), "The commitment–trust theory of relationship marketing," *Journal of Marketing*, **58** (3), 20–38.
Morwitz, Vicki G. and David Schmittlein (1992), "Using segmentation to improve sales forecasts based on purchase intent: which 'intenders' actually buy," *Journal of Marketing Research*, **29** (4), 391–405.
Namias, Jean (1960), "Intentions to purchase related to consumer characteristics," *Journal of Marketing*, **25** (July), 32–6.
Neslin, Scott A., Druv Grewal, Robert Leghorn, Venkatesh Shankar, Marije L. Teerling, Jacquelyn S. Thomas and Peter C. Verhoef (2006a), "Challenges and opportunities in multichannel customer management," *Journal of Service Research*, **9** (November), 95–112.
Neslin, Scott A., Sunil Gupta, Wagner Kamakura, Junxiang Lu and Charlotte H. Mason (2006b), "Defection detection: measuring and understanding the predictive accuracy of customer churn models," *Journal of Marketing Research*, **43** (May), 204–11.
Niraj, Rakesh, Mahendra Gupta and Chakravarthi Narasimhan (2001), "Customer profitability in a supply chain," *Journal of Marketing*, **65** (3), 1–16.
Nitzan, Irit and Barak Libai (2011), "Social effects on customer retention," *Journal of Marketing*, **75** (6), 24–38.
Oliver, R.L. (1999), "Whence consumer loyalty?," *Journal of Marketing*, **63** (special issue), 33–44.
Palmatier, Robert W. (2008a), "Interfirm organization relational drivers of customer value," *Journal of Marketing*, **72** (4), 76–89.
Palmatier, Robert W. (2008b), *Relationship Marketing*, New York and Cambridge: Marketing Science Institute.
Palmatier, Robert W., Rajiv P. Dant and Dhruv Grewal (2007), "A comparative longitudinal analysis of theoretical perspectives of interorganizational relationship performance," *Journal of Marketing*, **71** (5), 172–94.
Palmatier, Robert W., Rajiv P. Dant, Dhruv Grewal and Kenneth R. Evans (2006), "Factors influencing the effectiveness of relationship marketing: a meta-analysis," *Journal of Marketing*, **70** (4), 136–53.
Palmatier, Robert W., Cheryl Burke Jarvis, Jennifer R. Bechkoff and Frank R. Kardes (2009), "The role of customer gratitude in relationship marketing," *Journal of Marketing*, **73** (5), 1–18.

Pauwels, Koen, Peter S.H. Leeflang, Marije L. Teerling and K.R. Eelko Huizingh (2011), "Does online information drive offline revenues? Only for specific products and consumer segments!," *Journal of Retailing*, **87** (1), 1–17.

Prahalad, C.K. and Venkat Ramaswamy (2004), *The Future of Competition: Co-Creating Unique Value with Customers*, Boston, MA: Harvard Business School.

Price, Linda L. and Eric J. Arnould (1999), "Commercial friendships: service provider-client relationships in context," *Journal of Marketing*, **63** (4), 38–56.

Reinartz, Werner J. and V. Kumar (2003), "The impact of customer relationship characteristics on profitable lifetime duration," *Journal of Marketing*, **67** (1), 77–99.

Rust, Roland T. and Ming-Hui Huang (2012), "Optimizing service productivity," *Journal of Marketing*, **76** (2), 47–66.

Rust, Roland T., Jeffrey J. Inman, Jianmin. Jia and Anthony. Zahorik (1999), "What you don't know about customer-perceived quality: the role of customer expectation distributions," *Marketing Science*, **18** (1), 77–92.

Rust, Roland T., Katherine N. Lemon and Valerie A. Zeithaml (2004), "Return on Marketing: customer equity to focus marketing strategy," *Journal of Marketing*, **68** (1), 109–27.

Rust, Roland T., V. Kumar and Rajkumar Venakesan (2011), "Will a frog change into a prince? Predicting future customer profitability," *International Journal of Research in Marketing*, **28**, 281–94.

Rust, Roland T., Anthony J. Zahorik and Timothy L. Keiningham (1995), "Return on quality (ROQ): making service quality financially accountable," *Journal of Marketing*, **59** (2), 58–70.

Schmittlein, David C. and Robert A. Peterson (1994), "Customer base analysis: an industrial purchase process application," *Marketing Science*, **13** (1), 41–67.

Seiders, Kathleen, Glenn B. Voss, Dhruv Grewal and Andrea L. Godfrey (2005), "Do satisfied customers buy more? Examining moderating influences in a retailing context," *Journal of Marketing*, **69** (4), 26–43.

Sirdeshmukh, Deepak, Jagdip Singh and Barry Sabol (2002), "Consumer trust, value, and loyalty in relational exchanges," *Journal of Marketing*, **66** (1), 15–37.

Smith, Amy K. and Ruth N. Bolton (1998), "An experimental investigation of customer reactions to service failure and recovery encounters: paradox or peril?," *Journal of Service Research*, **1** (1), 65–81.

Smith, Amy K., Ruth N. Bolton and Janet Wagner (1999), "A model of customer satisfaction with service encounters involving failure and recovery," Journal of Marketing Research, **36** (3), 1999, 356–72.

Srivastava, Rajendra K., Tasadduq A. Shervani and Liam Fahey (1998), "Market-based assets and shareholder value: a framework for analysis," *Journal of Marketing*, **62** (1), 2–18.

Stahl, Florian, Mark Heitmann, Donald R. Lehmann and Scott A. Neslin (2012), "The impact of brand equity on customer acquisition, retention, and profit margin," *Journal of Marketing*, **76** (4), 44–63.

Tarasi, Crina O., Ruth N Bolton, Michael D. Hutt and Beth A. Walker (2011), "Balancing risk and return in a customer portfolio," *Journal of Marketing*, **75** (3), 1–17.

Tarasi, Crina O., Ruth N. Bolton, Anders Gustafsson and Beth A. Walker (2013), "Relationship characteristics and cash flow variability: implications for satisfaction, loyalty, and customer portfolio management," *Journal of Service Research*, **1** (17), 1–16.

Thomas, Jacquelyn S. (2001), "A methodology for linking customer acquisition to customer retention," *Journal of Marketing Research*, **38** (2), 262–8.

Thomas, Jacquelyn S. and Ursula Y. Sullivan (2005), "Managing marketing communication with multichannel customers," *Journal of Marketing*, **69** (4), 239–51.

Thomas, Jacquelyn S., Robert C. Blattberg and Edward J. Fox (2004), "Recapturing lost customers," *Journal of Marketing Research*, **41** (1), 31–45.

Tirenni, Giuliano, Abderrahim Labbi, Cesar Berrospi, André Elisseeff, Timir Bhose, Kari Pauro and Seppo Pöyhönen (2007), "Customer equity and lifetime management (CELM) Finnair case study," *Marketing Science*, **26** (4), 553–65.

Van Doorn, Jenny, Katherine N. Lemon, Vikas Mittal, Stephan Nass, Doreén Pick, Peter

Pirner and Peter. C. Verhoef (2010), "Customer engagement behavior: theoretical foundations and research directions," *Journal of Service Research*, **13** (3), 253–66.
Vargo, Stephen L. and Robert F. Lusch (2004), "Evolving to a new dominant logic for marketing," *Journal of Marketing*, **68** (1), 1–17.
Venkatesan, Rajkumar and V. Kumar (2004), "A customer lifetime value framework for customer selection and resource allocation strategy," *Journal of Marketing*, **68** (4), 106–25.
Verhoef, Peter C. (2003), "Understanding the effect of customer relationship management efforts on customer retention and customer share development," *Journal of Marketing*, **67** (4), 30–45.
Verhoef, Peter C., Philip Hans Franses and Janny C Hoekstra (2001), "The impact of satisfaction and payment equity on cross-buying: a dynamic model for a multi-service provider," *Journal of Retailing*, **77** (Fall), 359–78.
Wedel, Michael and Wagner A. Kamakura (1999), *Market Segmentation: Conceptual and Methodological Foundations*, Boston, MA: Kluwer Academic.
Zeelenberg, Marcel and Rik Pieters (2004), "Beyond valence in customer dissatisfaction: a review and new findings on behavioral responses to regret and disappointment in failed services", *Journal of Business Research*, **57** (4), 445–55.
Zeithaml, Valarie A. (1985), "The new demographics and market fragmentation," *Journal of Marketing*, **49** (3), 64–75.
Zeithaml, Valarie A. (1988), "Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence," *Journal of Marketing*, **52** (3), 2–22.
Zeithaml, Valarie A., Leonard L. Berry, and A. Parasuraman (1996), "The behavioral consequences of service quality", *Journal of Marketing*, **60** (2), 31–46.