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Emerald Article: A cross-cultural examination of relationship strength in B2B services

James M. Barry, Paul Dion, William Johnson

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James M. Barry
Huizenga School of Business and Entrepreneurship, Nova Southeastern University, Fort Lauderdale, Florida, USA

Paul Dion
Susquehanna University, Selinsgrove, Pennsylvania, USA, and

William Johnson
Huizenga School of Business and Entrepreneurship, Nova Southeastern University, Fort Lauderdale, Florida, USA

Abstract

Purpose – The purpose of this paper is to specify and test factors surrounding relationship strength between buyers and suppliers in a global, business-to-business (B2B) services context. In so doing, the paper helps extend relationship marketing theories to this under-researched domain.

Design/methodology/approach – A literature review, along with results of field interviews and surveys, provide a conceptual framework for the relationship strength formation process in the context of multi-cultures. The research then tests a model of hypothesized relationships using structural equation modeling.

Findings – The paper confirms the influence of perceived value, switching costs and relationship quality (satisfaction, trust and affective commitment) on relationship strength. As predicted, relationship quality mediates the influence that perceived value has on relationship strength. Switching costs further mediate the influence that relationship quality has on relationship strength which, in turn, influences substitution scarcity. No support, however, was offered for the proposed moderating influence that national culture (as measured by a buyer's country masculinity and individualism) has on quality/strength linkages and value/strength linkages.

Research limitations/implications – The sample of buyers in 42 countries includes a higher share of buyers from individualist than collective countries. Consequently, a more balanced cultural sample may have supported the otherwise rejected proposition that culture has a moderating impact on relationship building.

Practical implications – The study provides managerially relevant ("actionable") results which may help buyers execute customer retention strategies that lead to higher customer profitability.

Originality/value – This study adds to the limited literature on building B2B service relationships in a global context. The paper seeks to provide a balanced account of the social and economic aspects of relationship strength formation.

Keywords Relationship marketing, Culture, Services marketing

Paper type Research paper

An executive summary for managers and executive readers can be found at the end of this article.

Introduction

The importance of relationship marketing and value creation to scholars and practitioners is well known. A growing body of evidence supports the notion that suppliers gain far more wealth from the retention of customers than from the acquisition of new ones (Anderson and Weitz, 1992; Reichheld and Sasser, 1990). This wealth is often recognized in the form of higher shares of purchases, word-of-mouth influence and buyer investments in the relationship. The more business awarded a supplier, for example, the greater the leverage provided from the initial marketing investment. The same applies to economies gained from positive word-of-mouth.

While pressured to grow customer profits, suppliers are further challenged to distinguish themselves in a globally competitive environment. But many find that creating advantage along the traditional marketing mix dimensions is temporary at best. As a result, these suppliers are seeking more innovative ways to create value for their customers along relational dimensions. By doing so, suppliers often gain an advantage that is difficult to duplicate by other because of the intangible nature of relationship building.

Yet despite considerable evidence that validates the profit impact from strong relationships, little research has been devoted to understanding its root influences across aspects of a service encounter as well as the relationship itself (Berry, 1983; Storbacka *et al.*, 1994). Part of this stems from the research being scattered across multiple disciplines. A rather disjointed body of literature is garnered from the fields of services marketing, transaction cost economics and relationship marketing. From the services marketing literature, for example, retention strategies are discussed

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from the standpoint of service quality, perceived value and performance satisfaction. Transaction cost economics introduces the concept of idiosyncratic resources as a way to impose switching costs and other buyer dependencies that may lead to relationship commitment. Finally, the literature on relationship marketing sheds light on the social aspects of long-term relationships. In this case, factors such as trust, communications, affective commitment and relational bonds have been widely discussed as contributors to relationship strength.

The divergence in disciplines has created a gap in research aimed at predicting behaviors conducive to lasting relationships. One consequence is the separation of study domains across social and economic perspectives. For example, the literature would suggest that researchers tend to view economic variables such as service quality and perceived value separately from social variables such as trust, commitment and bonds (Iacobucci and Hibbard, 1999; Mittal, 1999; Rexha, 2000; Storbacka *et al.*, 1994). Perceived value still remains a body of services marketing literature most relevant to consumers, while trust and commitment are reserved more for the study of organizational behaviors in business-to-business (B2B) service settings.

This research attempts to bridge this gap by developing and testing a conceptually sound framework that encompasses each of these facets of relationship strength. An examination of relationship strength is especially important in B2B services because of the personal contact between buyers and suppliers (Liljander and Roos, 2002; Moller and Torronen, 2003).

In the particular case of B2B services, the literature would suggest consideration of the following aspects when examining this construct:

- the economic and social aspects of relationships;
- outcomes driven out of necessity and desire;
- the subjective nature of services; and
- the influence of national culture.

For this reason, the authors set out to explain the factors driving relationship strength in a global services context that blends both a calculative perspective (e.g. economically driven mainly out of necessity) and an affective perspective (e.g. socially driven mainly out of desire).

The paper is divided into four sections. The first section reviews the extant literature for concepts relevant to models of relationship strength. The models are refined to reflect aspects relevant to the B2B services domain. Hypotheses are then proposed in support of the integrated model. The next section tests the hypotheses in the context of structural equation models. After discussion of relevant fit statistics, the third section reports and discusses results of hypotheses testing. Finally, the fourth section discusses study limitations, managerial and theoretical implications, and suggestions for further research.

The relevance of relationship strength to B2B services has much to do with its interpersonal delivery (Bove and Johnson, 2001). In fact, the term "relationship strength" is often a synonym for interpersonal loyalty (Oliver, 1997). The construct is particularly applicable to situations where the service has experience qualities that are difficult to predict or evaluate. Moreover, the construct has relevance to B2B services because of its long-term nature. Buyers of B2B services are more likely to seek longer-term relational buying arrangements, for example, than those in the market for physical goods procurement (Grönroos, 1995; Holmlund and Kock, 1995; Mittal, 1999). According to Hogan (1998), buyers of services are not only concerned with the transfer of services, but also with the quality of the interaction with their suppliers. This resonates with study participants, one of whom stated that "new business is awarded based on past performance in delivery and quality, overall best value and the relationship."

The tenets of relationship strength

Frameworks for B2B services

Since the turn of the century, there have been some attempts to blend both the social and economic perspectives when modeling relationship strength. For example, in a qualitative study, Friman *et al.*(2002) demonstrated that both social and economic rules mix in B2B relationships. Similarly, Donaldson and O'Toole (2000) demonstrated how relationship strength captures both the economic ties and social bonding of partners. Rexha (2000) further argued from extant literature findings and grounded theory that long-lasting relationships between partners require a comprehensive framework that integrates offer quality – an economic aspect – with a supplier's relationship activities.

As demonstrated in Table I (literature review summary), research in relationship strength lacks a sound conceptual framework. For example, researchers tend to follow either a socially oriented or an economically oriented course, but rarely both. Moreover, the studies encompass a wide array of potentially overlapping concepts. An example is the strong resemblance of services quality dimensions to trust. Consequently, further research is required to develop theory-based models that are conceptually sound as well as comprehensive in their predictive power.

Beyond the need to incorporate social and economic perspectives, researchers are further challenged with the complexity of understanding the highly subjective decision making involved in the services business. The intangible nature of services, for instance, requires buyers to subjectively evaluate the perceived value of the service transaction. Moreover, these buyers will typically base their commitment decisions on subjective perceptions of supplier trustworthiness, feelings of satisfaction and relational bonding with their suppliers. The challenge to researchers, therefore, is to blend both the economic and social perspectives surrounding relationship development while examining a wide array of attitudinal states that collectively contribute to a buyer's subjective perceptions. This requires a perspective that extends across the fields of services marketing, transaction cost economics and relationship marketing.

Encouraging steps have been taken, however, to integrate these perspectives. Some progress has been made, for example, in bridging the gap between service quality, relationship quality and future intentions (Roberts *et al.*, 2003). Similarly, Sirdeshmukh *et al.* (2002) found empirical support for the relationship between trust and value. Still others have attempted to bridge the gap in social and economic perspectives by incorporating both dimensions under broader concept definitions such as relationship value (Hogan, 2001; Ravald and Gronroos, 1996; Ulaga and Eggert, 2006; Ulaga, 2003; Ulaga and Chacour, 2001). Lacking at this point, however, are frameworks that consolidate all aspects of relationship building.

Table I Literature review (empirically validated studies)

		Relationship strength antecedents						Relationship strength dimensions			
	Primary orientation	Satisfaction	Trust	Social Commitment	Other	Value	Economic Switching costs/ calculative commitment	Repurchase intentions/ reluctance to search	Share of purchases/ cross-buying	Willingness to invest	Word of mouth
Abdul-Muhmin (2003)	Social	×		×	Opportunism			×			
Boles *et al.* (2000)	Social	×	×		Equity & expertise			×	×		
Bolton and Drew (1991)	Economic					×		×			
Bolton *et al.* (2003)	Economic					×		×			
Chang and Wildt (1994)	Economic					×		×			
Crosby *et al.* (1990)	Social	×	×		Selling behavior, Expertise, Service quality			×			
de Ruyter *et al.* (1998)	Social						×	×			
De Wulf *et al.* (2001)	Social	×	×	×	Relationship investment			×			
Eggert and Ulaga (2002)	Social and economic	×				×		×			
Hennig-Thurau and Klee (1997)	Social	×	×	×				×			
Hennig-Thurau *et al.* (2002)	Social	×		×				×			×
Hewett *et al.* (2002)	Social		×	×				×			
Hogan (1998)	Social				Relationship value			×		×	
Johnson and Grayson (2005)	Social		×						×		
Kim and Cha (2002)	Social	×	×		Customer orientation, Competency			×	×		×
Kumar *et al.* (1995)	Social	×	×	×	Affective conflict			×		×	
Lee and Cunningham (2001)	Economic						×	×			
Lee *et al.* (2001)	Economic						×	×			×
Leuthesser (1997)	Social	×	×						×		
Liljander and Strandvik (1993)	Social	×						×			

(continued)

Table I

		Relationship strength antecedents						Relationship strength dimensions			
	Primary orientation	Satisfaction	Trust	Social Commitment	Other	Value	Economic Switching costs/ calculative commitment	Repurchase intentions/ reluctance to search	Share of purchases/ cross-buying	Willingness to invest	Word of mouth
Ravald and Gronroos (1996)	Social	×						×			
Roberts *et al.* (2003)	Social	×	×	×	Affective conflict & service quality			×	×		×
Sirdeshmukh *et al.* (2002)	Social & economic		×			×		×			
Szybillo and Jacoby (1974)	Economic					×		×			
Verhoef *et al.* (2001)	Social & economic	×	×	×			×		×		×
Wang *et al.* (2004)	Social & economic	×			Social value	×		×	×		
Wathne *et al.* (2001)	Economic						×	×			

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A further challenge to researchers seeking to understand determinants of relationship strength is the blending of relationship necessity with desire. Much like any partnership, suppliers and buyers are bound by loyalty as well as a compelling need to continue the relationship. The latter is often driven by switching barriers that preclude the buyer from selecting alternative suppliers. Without the desire for continuance, however, relationships built solely out of necessity are tenuous at best. Studies in calculative and affective commitment, for example, have in fact demonstrated that buyers base their commitment on calculations of switching risks as well as on sentiments of allegiance (de Ruyter *et al.*, 2001; Geyskens *et al.*, 1996; Gilliland and Bello, 2002).

Finally, researchers have suggested that culture be considered when examining aspects of relationship strength. Sufficient evidence supports the notion that certain cultures may favor the economic aspects over the relational aspects of a relationship. Similarly, certain cultures are more conducive to building relationships out of sentiments of allegiance rather than out of necessity. (Furrer *et al.*, 2000; Hewett and Bearden, 2001; Williams *et al.*, 1998).

Nomological structure

As a starting foundation for modeling relationship strength, we begin with the concepts proposed by Storbacka *et al.* (1994). The authors provide a nomological structure, as shown in Figure 1, that conceivably extends across the domain of relationship strength in a B2B services setting. According to their model, satisfaction is positioned at the core of the relationship strength model. This construct, in turn, is influenced by perceived value. Finally, the model further shows that strong relationships are characterized by commitment, which in essence serves as an exit barrier.

Using this model as a baseline, we then make adjustments to the selection of constructs in order to reflect the distinct influence that national culture has on the economic and social strains of relationship strength. A proposed outcome of relationship strength is the perceived number of suitable alternatives. Consistent with the literature, switching costs are then added to the Storbacka *et al.*(1994) model as an economic antecedent to relationship strength. The social antecedents derived from the literature review include trust, affective commitment and satisfaction. These are captured under the high order construct known as relationship quality. Finally, as demonstrated in Figure 2, the resulting model shows the moderating influence of national culture. In the following sections we define relationship strength; detail the logic underlying our conceptual model; and develop our research hypotheses.

Relationship strength defined

Relationship strength has been broadly measured by Storbacka *et al.* (1994) as consisting of repeat purchase as well as communication behaviors (word of mouth, complaints). According to Donaldson and O'Toole (2000, p. 4):

> . . . the relationship strength construct is measured by an assessment of the belief and action components inherent in a relationship. The belief components measure behavioral processes while the action components measure economic content.

The actual behavioral state resulting from affective forms of these motivations is captured under three dimensions: a buyer's reluctance for alternative searching; a willingness to invest in a supplier (Eggert and Ulaga, 2002; Gundlach *et al.*, 1995); and the supplier's share of purchases (Boles *et al.*, 2000; Johnson and Grayson, 2005; Kim and Cha, 2002; Leuthesser, 1997; Roberts *et al.*, 2003). Reluctance for alternative searching reflects the supplier's motivation to continue a relationship assuming that it will bring future value and benefits (Friman *et al.*, 2002). Gundlach *et al.* (1995) refers to this behavioral intention as an enduring level of commitment that shares common meaning with the continuance dimension of commitment. It can be operationalized in terms of future resources and investments. A willingness to invest in a relationship goes beyond the "willingness to work hard" implication of commitment (Gundlach *et al.*, 1995; Hogan, 1998). It involves incurring substantial expenses in the form of capital outlays.

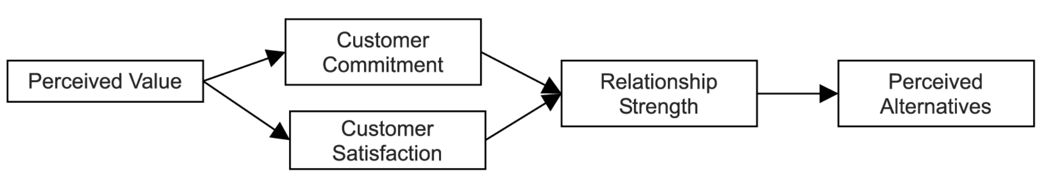
Finally, evidence of relationship strength is demonstrated when suppliers receive increasing shares of their buyer's business. This patronage concentration also contributes to the building of switching costs, which in turn impacts a buyer's intentions to continue the relationship. Several conceptual studies support the premise that relational customers can be expected to allocate a higher share of their business to suppliers. Parasuraman *et al.* (1991) suggested that such buyers often spend more with these suppliers as well as buy additional products or services from them.

For purposes of the current research, we combine the aspects of search reluctance, willingness to invest and share of purchases in defining relationship strength. This definition is relevant in a B2B services context. Buyers signal their allegiance to suppliers by expanding business opportunities as well as investing resources to further the relationship.

Relationship quality as social antecedent

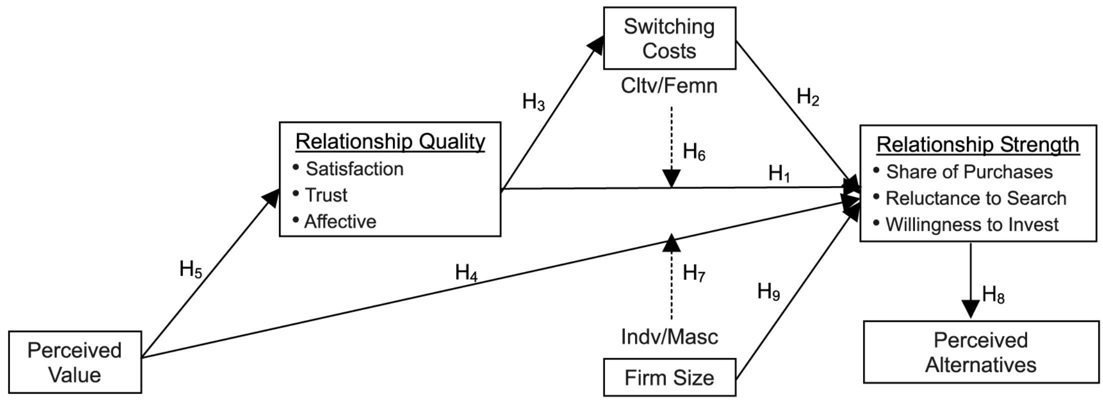
Several models that incorporate relational behaviors as determinants of relational strength have been proposed (see Table I). Although both social and economic antecedents share some common domain, the latter have more to do with the execution of the service delivery transaction. Social behaviors, on the other hand, are more strategic in nature and

Figure 1 Relationship strength model proposed by Storbacka *et al.* (1994)



Source: Storbacka *et al*. (1994)

Figure 2 Hypothesized model



"entail proactive actions designed to protect and enhance the content of what is to be delivered." (Mittal, 1999).

The inclusion of relationship quality as a social antecedent to relationship strength is consistent with previous studies on relationship marketing (De Wulf *et al.*, 2001; Kumar *et al.*, 1995). Review of the extant literature shows relationship quality typically conceptualized as a high order mental construct that encompasses aspects of a buyer's satisfaction with, trust in and commitment to a supplier (Garbarino and Johnson, 1999). Building on these conceptualizations (Crosby *et al.*, 1990; Dorsch *et al.*, 1998), relationship quality would then be expected to influence relationship strength directly. Although the role of trust is absent in the Storbacka *et al.*(1994) model, the high correlation between trust and commitment is well documented (Dorsch *et al.*, 1998; Garbarino and Johnson, 1999; Geyskens *et al.*, 1996; Morgan and Hunt, 1994; de Ruyter *et al.*, 2001).

Commitment

Commitment is the most common dependent variable used in buyer-supplier relationship studies (Wilson, 1995). It is the desire to continue the relationship and to work to ensure its continuance. Dwyer *et al.* (1987) observe that "commitment represents the highest stage of relational bonding" (Gundlach *et al.*, 1995). They are strong indications of relationship longevity and strength which, in turn, are well documented predictors of profitability gains. The impact that commitment and future intentions has on profitability is addressed by several authors including Anderson and Weitz (1992), Reichheld and Sasser (1990), Rust and Zahorik (1993), and Storbacka *et al.*(1994). Kim and Frazier (1997) refer to commitment as the extent to which a buyer is dedicated to a close and enduring relationship with a supplier. Commitment is often defined from a behavioral perspective as a partner's intention to continue a relationship (i.e. future intentions). Organizational researchers note, however, that this desire for continuity is motivated by both structural dependencies and psychological intentions (Geyskens *et al.*, 1996). In essence, the behavioral intention is likely preceded by various motivations for relationship continuance. Of these motivational states, affective commitment is most often referenced and perhaps the most relevant to industrial service settings (Geyskens *et al.*, 1996; Mathieu and Zajac, 1990).

Affective commitment

This construct refers to the sense of unity binding buyers to suppliers (Kim and Frazier, 1997). Rooted in relational exchange theory, this component of commitment is more concerned with emotional content and with preserving and recognizing the traditional values of an ongoing relationship (Gilliland and Bello, 2002). According to Fletcher (1993), firms bound by sentiments of allegiance and faithfulness are tied to their partners for reasons beyond pure economic gain. The sentiment of allegiance makes it difficult to exit a relationship because "as a rule, loyalty holds exit at bay." (Hirshman, 1970, p. 78). According to Geyskens *et al.*(1996), affective commitment expresses the extent to which parties like to maintain their relationships. Dwyer *et al.* (1987) point out that the affective attachment passes through a series of incremental stages in which partners must provide signals of goodwill, act in good faith, and prove allegiance.

Regarding affective commitment as a relationship quality dimension, Moorman *et al.* (1993) suggest that buyers who are committed to a relationship might have a greater propensity to act because of their need to remain consistent with their commitment. Similarly, Morgan and Hunt (1994) found empirical support for the relationship between a buyer's commitment and acquiescence, propensity to leave, and cooperation, all of which can be regarded as behavioral outcomes of relationships.

A well-acknowledged antecedent of relationship commitment is trust (Geyskens *et al.*, 1996). The construct of trust has been widely researched and tested across a number of domains. A definition of trust found relevant to the B2B services sector is that offered by Moorman *et al.* (1993, p. 82). The authors define trust as "a willingness to rely on an exchange partner in whom one has confidence." Similarly, Morgan and Hunt (1994, p. 23) conceptualize trust as existing when one party has confidence in an exchange partner's reliability and integrity.

Considerable evidence exists that trust positively affects affective commitment (Andaleeb, 1996; Anderson and Weitz, 1992; Morgan and Hunt, 1994). A general conclusion is that relationships characterized by trust are so valued that parties will desire to commit themselves to such relationships. As commitment entails vulnerability, Morgan and Hunt (1994) point out that parties will seek only trustworthy partners.

The anticipation of trust is what drives affective commitment. In a study conducted by de Ruyter *et al.* (2001), positive relationships between trust and both affective commitment and future intentions were confirmed. Similarly, Wilson (1995) points out that the actions of the partners begin to define the level of trust that will shape the future of the relationship (e.g. formulate commitment). Finally, regarding trust as a relationship quality dimension, Smith and Barclay (1997) report a positive effect of trust on such behavioral outcomes as forbearance from opportunism.

Satisfaction

Satisfaction with the relationship is regarded as an important outcome of buyer-seller relationships (Smith and Barclay, 1997). It is widely accepted as a strong predictor for behavioral variables such as repurchase intentions or loyalty (Eggert and Ulaga, 2002; Liljander and Strandvik, 1993; Ravald and Gronroos, 1996). Anderson and Narus (1990) see relationship satisfaction as leading to long-term continuation of relationships, which can be an indicator of commitment. The construct is often defined as a buyer's affective state resulting from an overall appraisal of their relationship with a supplier (Anderson and Narus, 1990; De Wulf *et al.*, 2001). Storbacka *et al.*(1994) defines relationship satisfaction as the buyer's evaluation based on the personal experience across all service episodes within the relationship. In other words, satisfaction has a cumulative effect over the course of a relationship compared with satisfaction that is specific to each transaction (Anderson *et al.*, 1997). The construct is most often measured by the degree to which a business transaction meets the performance expectations of a buyer (Wilson, 1995).

This strong literature support for the role that affective commitment, trust and satisfaction collectively have on behavioral outcomes supports Hennig-Thurau and Klee's (1997) argument that relationship quality is an antecedent of repeat purchase behavior. Macintosh and Lockshin (1997) and Bolton (1998) also found positive paths from relationship satisfaction to both relationship duration and purchase intentions (Donaldson and O'Toole, 2000). Consistent with these findings, we therefore propose the following hypothesis:

H1. Relationship quality positively influences relationship strength.

Switching costs as an economic antecedent

In addition to social behaviors that build relationship strength, Gronhaug and Gilly (1991) argue that dissatisfied customers may remain loyal because of high switching costs. Switching costs are generally defined as costs that deter customers from switching to a competitor's service. According to Lee and Cunningham (2001, p. 113):

> ... switching costs include the costs of gathering information about other possible service providers; the customer's perceptions of risk in selecting a new provider; the extent to which alternative providers cannot match the current provider's range of services; and the possibility of having to travel further to get to the new service provider.

Similarly, Lee *et al.* (2001, p. 39) define switching costs "as the costs that the customer incurs by changing providers that they would not incur if they stayed with their current provider."

The importance of customer switching costs to behavioral outcomes is well documented in the literature (Lee *et al.*, 2001; Oliver, 1997; Oliver, 1999). In their study of B2B services, Wathne *et al.* (2001) found that customers add considerably more weight to switching costs than interpersonal relationships when deciding to remain with an incumbent supplier. These findings resonate with comments made by participants of this study as well. One study respondent commented:

> ... Our choices on who gets new business opportunities often depends on how tied up we are with certain vendors ... We may be locked into a vendor based on accumulated rebate points or the high costs of substituting record keeping systems, part scanning and other vendor administration systems ...

Another replied:

> ... Switching costs are key ... We often quantify the cost to switch and even factor in the uncertainty of the unknown ... Products are becoming commodities; so investments in parts, training, etc. are key considerations in staying with incumbents ...

Consistent with these findings and comments, we therefore propose the following:

H2. Switching costs positively influence relationship strength.

Relationships between switching costs and relationship quality have been studied conceptually and empirically. According to Storbacka *et al.* (1994, p. 26):

> ... establishing a new relationship represents some sort of investment of effort, time and money which constitutes a significant barrier to the customer's taking action when dissatisfied with a distinct interaction during a relationship.

In a study of sourcing strategies, Sharland (1997) found switching costs to be the only significant predictor of commitment to maintain the relationship. Similarly, Caruana (2004) found a positive relationship between relational switching costs and affective commitment thereby leading to the following hypothesis:

H3. Switching costs mediate the influence that relationship quality has on relationship strength.

Perceived value as an economic antecedent

A number of literature references support the notion of including perceived value with relationship quality in the context of relationship strength. The construct of perceived value is often described as having a behavioral dimension that measures the extent to which social bonding has occurred among key individuals, trust has developed, and national, organizational, or industry cultures are shared (Wilson and Jantrania, 1994). According to Anderson (1995), the essential purpose for a buyer and supplier is to work together in ways that add value or reduce cost in the exchange between firms.

The inclusion of perceived value as an economic antecedent is consistent with this study's exploratory research as well. One study respondent comments that, "as customers, we are looking for life cycle cost savings and don't necessarily care about relationships." Another replies that:

> ... more analysis being conducted at the airlines is taking relationships out of the equation ... Today we have far more MBAs and information systems to track and establish selection criteria ... There is no need for relationships unless the cost of failure is high ... It's all about price and performance ...

Still another comments that "economics rule the day."

A number of empirical studies support the influence that value has on relational outcomes. Many, for example, have found strong ties between value and such outcomes as loyalty or intentions to buy (Eggert and Ulaga, 2002; Grisaffe and Kumar, 2002; Harris and Goode, 2004; Parasuraman and Grewal, 2000). For this reason, we propose the following:

H4. Perceived value positively influences relationship strength.

Relationships between value and the trust, satisfaction and commitment aspects of relationship quality have been studied as well. In a study of after-sales services, Barry and Johnson (2004) concluded that perceived value reduces exchange uncertainty while helping the buyer to form consistent and reliable expectations of the service provider (i.e. formulate trust) in ongoing relationships. The study further demonstrated the positive influence that perceived value has on attitudinal commitment, a construct similar to relationship strength.

The relationship of value to trust, however, requires an appreciation of value beyond its traditional definition as "a trade-off between benefits and sacrifices perceived by a buyer from a supplier's offering" (Zeithaml, 1988, p. 14). For example, Woodruff (1997) defines value as the buyer's perceived preference for and evaluation of those attributes, attribute performances and consequences arising from use that facilitate (or block) achieving the buyer's goals and purposes in use situations. When extending transaction oriented definitions to include elements of goal orientation and risk reduction (Flint and Woodruff, 2001; Sirdeshmukh *et al.*, 2002), perceived value goes beyond the past experience perceptions inherent in satisfaction surveys to a more futuristic calculation of how well the service provider is likely to satisfy future expectations relative to alternatives. For example, trust is created from on an assessment of the service provider's ability to meet the buyer's expectations. Further, a superior offer conveys an intention to address a buyer's needs by providing benefits greater than those obtainable from alternative suppliers. In their study of online retailers, Harris and Goode (2004) found that perceived value had a positive influence on trust.

Finally, a number of literature references also support the notion of including perceived value with the commitment element of relationship quality in the context of relationship strength. For example, studies of value-added benefits in building loyalty with existing buyers (a closely related construct to commitment) are becoming well integrated into areas of industrial marketing (Anderson, 1995) and services (Gwinner *et al.*, 1998; Zeithaml, 2000).

Besides its impact on trust and commitment, several studies demonstrate relationships between perceived value and satisfaction. In fact, Eggert and Ulaga (2002) show ample evidence of how satisfaction mediates the influence that value has on repurchase intentions and as well as propensities for switching. Testing of an alternate model also showed a direct relationship between perceived value and repurchase intention.

Although a number of researchers debate the combined use of value and satisfaction in the same research domain, a recent study by Eggert and Ulaga (2002) concludes that perceived value (a cognitive variable) and satisfaction (an affective variable) do not substitute but, in fact, complement each other. Their results further support the argument that both are necessary to include in business research, especially within a relationship marketing setting. The addition of perceived value to the model of relationship strength is essentially made to enrich the cognitive aspects of relationship building to the more affective aspects of the satisfaction dimension of relationship quality.

Consistent with these findings, we therefore propose the following:

H5. Relationship quality (as measured across satisfaction, trust and commitment) mediates the influence that perceived value has on relationship strength.

The moderating influence of national culture

The relevance of national culture in relationship marketing can hardly be debated. The globalization of world economies has forced many suppliers of B2B services to rethink their relationship orientation in light of the cross-cultural distinctions found between a supplier's home country and the host countries of their prospective buyers. An understanding of these distinctions is especially important when sizing up a buyer's future intentions. For example, from the cross-cultural literature, buyers from undeveloped or developing eastern cultures can be expected to embrace longer term relationships than those found among their US-based counterparts. Similarly, by virtue of their more calculative natures and self-reliant business styles, buyers from well developed, western cultures would likely consider more of the economic and less of the social factors surrounding relationships with their suppliers. Yet despite its recognized importance in global business development, cross-cultural relationship marketing has not been well researched in the context of B2B services.

Of the research conducted to date, what is becoming increasingly evident is that the social orientation advocated by the relationship marketing paradigm has its place more in the family oriented societies that characterize much of Latin America, Asia, the Middle East and Southern Europe (e.g. Spain and Greece). However, despite growing evidence that national culture influences relational strength, marketing theories tested on inter-firm relationships frequently have been examined in single country settings such as the USA (Hewett and Bearden, 2001; Geyskens *et al.*, 1996). In fact, prior to the early 1980s, the application of US theories to other cultures was not of great concern to academics. As stated by Hofstede (1980, p. 373), "there is a silent assumption of universal validity of culturally restricted findings in scholarly journals." This assumption has been repeatedly challenged over the past two decades, however, as researchers now realize their underestimation of cultural influences on relational variables such as commitment (Randall, 1993). Comparisons of the competitiveness of American firms with European and Asian competitors, for example, have concluded that differences in their performances are likely to be attributed to cultural distinctions when the research revealed few structural differences (Pascale and Athos, 1981). This suggested that studies of organizational behavior that failed to account for culture as a variable were therefore incomplete (Ouchi and Wilkens, 1985).

Although considerable progress has been made in advancing cross-cultural research into the domain of relationship strength, studies to date have produced inconclusive and conflicting results. For example, while some researchers (Furrer *et al.*, 2000; Hewett and Bearden, 2001; Williams *et al.*, 1998) support the popular notion that national culture exerts a significant influence on international business relationships, others (e.g. Pressey and Selassie, 2003) conclude that national culture does not matter. These anomalous results may be due, in part, to methodological limitations (e.g. limited number of countries in the sample) which characterize this stream of research.

A further shortcoming of these models may relate to the cultural dimensions selected for research. Cross-cultural studies in marketing have traditionally treated the individualism dimension as a way of isolating cultural influences (Rodriguez and Wilson, 2002; Williams *et al.*, 1998). Few have isolated other aspects, such as nation

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masculinity, despite its noted relevance to services marketing and relationship marketing. Of those that consider masculinity as a moderating influence, the reference is most often combined with individualism (Doney *et al.*, 1998).

The value in correlating a cross-cultural index to these constructs is important for the following reasons:

- The USA represents one of the largest product and service markets and is at the extreme end of the individualism and masculinity scales, a relational challenge to suppliers of Asian, Latin American, Middle Eastern and Southern European origin.
- Asia is perhaps the most rapidly growing region of market opportunities with most countries clustered near the opposite (low) end of the individualism and masculinity scales.

Individualism and collectivism

Despite its noted limitations, a number of studies have used Hofstede's scoring to assign countries representing two extremes of individualism (Low IDV and High IDV). What makes Hofstede's (1980) dimensions most useful in a business setting is its extensive data support from a landmark survey of 116,000 subjects across over 40 different countries. The study was later expanded by independent studies to over 60 countries to date. Hofstede (1980) refers to his individualism dimension as the prevailing relationship between individuals and social groups within a country. At the other extreme (high collectivism), individual expectations are sublimated to that of society.

According to Triandis (1989), collectivism is a central cultural value that has important influences on social behavior. It represents an individual's beliefs that collective or group interests should take precedence over individual self-interest (Kim *et al.*, 1994). By their very nature, collective cultures are family oriented and will strive for some collective goal. In cultures with a high degree of individualism, on the other hand, buyers are more independent and self-centered. Consequently, personal ties with their suppliers are loose. Doney *et al.* (1998) attribute the loose ties to the more calculative nature of buyers in individualist cultures, which according to Gilliland and Bello (2002), Geyskens *et al.* (1996) and de Ruyter *et al.* (2001), represents a far weaker form of attachment than one founded on sentiments of allegiance.

Masculinity and femininity

Masculinity as a construct, measures "the value placed on material things, power, and assertive behavior as opposed to the value placed on people, and nurturance" which is captured by femininity (Hofstede, 1980, p. 360). Masculine cultures value achievement and abhor failure, whereas feminine cultures value affiliation and view failure as much less important. Examples of masculine countries include Japan and the USA. Feminine countries are exemplified by Scandanavian countries such as Norway and Sweden. Societies with high masculinity display a pattern of assertiveness and aggressiveness. Kale (1995) stated that:

> … while the bottom line would be important for both masculine and feminine societies, firms in feminine societies will place greater emphasis on non-monetary factors like bonds of interpersonal friendship and the psychic aspects of relationships (Hofstede, 1980, p. 360; Shankarmahesh *et al.*, 2003, p. 9).

The influence of national culture on commitment is inferred in the literature. In their study of management subsidiary relationships, Hewett and Bearden (2001) confirmed that trust has more of an effect on cooperation in highly collectivist cultures than in highly individualistic cultures. Given the strong association between cooperation and commitment demonstrated in the literature (Morgan and Hunt, 1994), this relationship suggests a higher propensity for affective commitment among collectivist and feminine societies.

A number of studies have validated the influence that national culture has on the trust aspects of relationship quality. For example, Hewett and Bearden's (2001) study concluded that national cultural (measured by individualism/collectivism) moderates the effect of trust on relational behaviors. In a similar vein, Williams *et al.* (1998) suggest that firms in collectivist cultures form bonds that focus more on personal factors such as trust than on economic rewards and strategic objectives. Finally, a study by Rodriguez and Wilson (2002) on Mexican (highly collective) and US managerial differences confirm many of the conceptual insights implied by Williams *et al.* (1998). As expected, the study reinforces the notion that buyers in individualist cultures base their trust in partners more on economic and strategic cooperation; whereas buyers from collective nations perceive the social and affective dimensions of trust as the driving force in a relationship.

Further testimony of this cultural orientation is demonstrated in Sullivan and Peterson's (1982) study of US and Japanese (highly collective) ventures; here, the authors noted the much greater importance Japanese managers (collective) place on trust in comparison to their US (individualistic) counterparts. Their study concluded like others (e.g. Ouchi, 1980; Peterson and Shimada, 1978) that trust is the crucial variable in the ultimate effectiveness of a Japanese-American partnership. Similar results were obtained in a study conducted by Furrer *et al.* (2000) where assurance, a dimension of trust, was found to be highly correlated with collectivism.

The following hypothesis is therefore proposed:

H6. National collectivism/femininity positively moderates the influence that relationship quality has on relationship strength.

Much can be gleaned from the literature on the role that national culture plays in driving economic orientations. For example, Randall (1993, p. 93) points out that:

> … one would expect greater *attachment* (a sense of loyalty) to institutions in collectivist cultures, and greater *calculative* involvement (a cost-benefit) approach) with institutions in individualist cultures.

Hence, the following is proposed:

H7. National individualism/masculinity positively moderates the influence that perceived value has on relationship strength.

Available alternatives as a relationship strength outcome

A key outcome of relationship strength is the reduction in perceived alternatives. As pointed out by Storbacka *et al.* (1994, p. 29):

> In addition to "objective" market concentration, relationship strength impacts the customer's perception of the market situation. The customer may perceive that there are few alternatives in the market because of the fact that some of the alternatives, in fact, are not part of the customer's evoked set. The customer may, hence, be loyal to the relationship because of lack of perceived alternatives ("all suppliers are the same"), regardless of relationship strength.

In a similar vein, Rexha (2000, p. 9) argues that the reduction in perceived alternatives has much to do with the switching costs developed from strong relationships. The author states that:

> ... it is logical to expect that the supplier's gain in the share of the customer's market patronage decreases the customer's relationships with other suppliers, and indirectly reduces other suppliers' chances of offering new alternatives to the focal customer.

He further argues that "available alternatives may not be attractive to customers with low switching cost" (p. 9). Consistent with these perspectives, we offer the following hypothesis:

H8. Relationship strength negatively influences the perceived number of alternatives.

Fleet size as a control variable

In their study of switching behaviors, Wathne *et al.* (2001) concluded that firm size had a significant and positive impact on a buyer's tendency to switch. Since firm size may be a proxy for buyer power, and hence, a buyer's tendency to switch, our model includes this term for control purposes. The purpose of the control variable is to account for certain respondent-level characteristics that my influence relationship strength. For this reason, we propose the following:

H9. Firm size influences relationship strength.

Methodology

Data collection

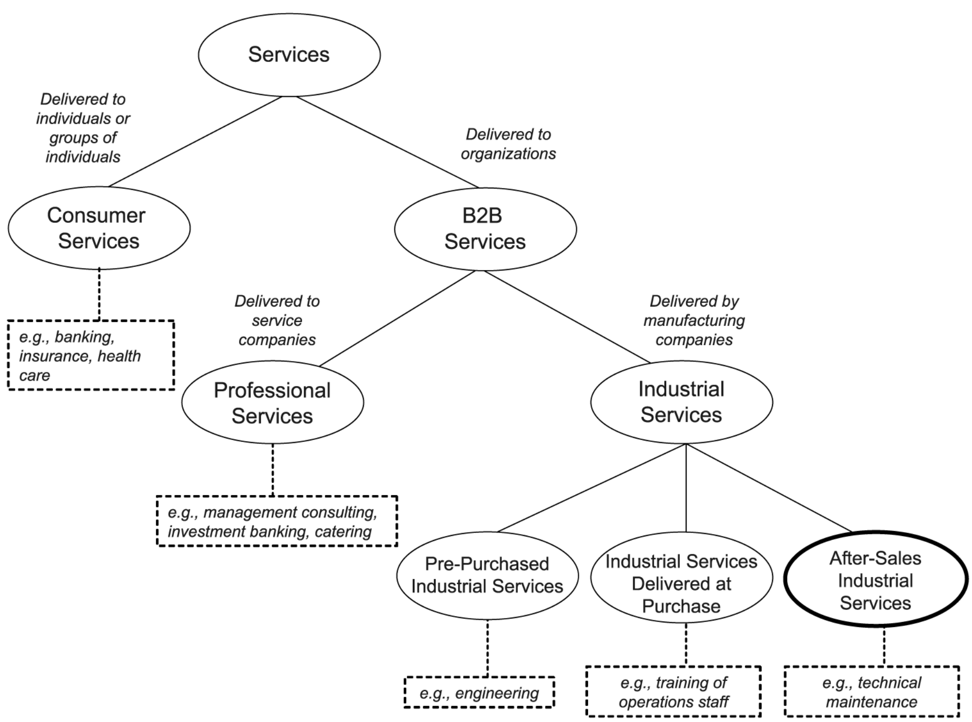
This study used a large segment of the commercial aviation maintenance, repair and overhaul (MRO) market as the sampling population. The specific choice of an aviation MRO segment permits a high degree of homogeneity while allowing for a wide variance in relational orientations. These buyers fall under the B2B services category known as industrial after-sales services (see Figure 3 Taxonomy). To maintain homogeneity, fleet operations were restricted to commercial use (e.g. as opposed to private flying or military applications) and unscheduled maintenance of common service offerings using the industry classification system known as ATA chapters (e.g. instrument, wheels and brakes, avionics, etc.). Cargo, ambulance and passenger aircraft were included in the sample given their common transport related missions and degree of service urgency. As shown in Table II, the breakdown of respondents across global regions, type of air carrier and fleet size indicates that the sample represents a fair cross section of buyers.

An after-sales services market was chosen to empirically test the hypotheses because it provides an excellent setting in which to examine buyer/supplier service relationships in a context that blends the characteristics of product-related exchanges with that of service-related exchanges. For example, an aviation repair business entails a delivered offering with measurable product quality attributes. Much like a service, on the other hand, MRO involves moderate levels of personnel contact with a buyer. Moreover, the repaired component cannot always be evaluated at the time of delivery; instead, buyers must often base their service purchase decisions on previous histories with the supplier.

Table II Profile of respondents

Region	%	Fleet size	%	Operator type	%
North America	55	>100 aircraft	31	Major/national	42
Europe	26	25-99 aircraft	29	Regional airline	34
Asia	5	<25 aircraft	40	Commuter/charter	12
South America	3			Cargo	7
Australia/NZ	7			Other (e.g. leaser, helos)	5
Middle East	4				
Total	100	Total	100	Total	100

Figure 3 Taxonomy of services



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Consequently, this puts MRO more in the category of services.

Overall, the sampling frame included a list of buyers classified as one of the following:

- Purchasing manager or director.
- Director of maintenance.
- VP or manager of maintenance/technical support (dependent on operation size).
- Vendor administration, warranty administration, quality control and other department names following an e-mail request for responsible outsourcing contact.

The approach to conceptual model development followed a three-stage process. First, 19 field interviews were conducted to conceptualize factors driving relationship behavior. A pre-test was then conducted primarily for scale purification. Following this test, data was then obtained through self-administered questionnaires mailed to buyers of aviation maintenance services. A country distribution of the responses scored by Hofstede's individualism and masculinity dimensions is shown in Table III. Following three waves of e-mails and postal delivered surveys supported by two follow-up broadcast fax reminders and a pre-notice letter, 202 usable responses were collected. The effective response rate is calculated to be 14 percent. Though low, this rate is not unusual for industrial services involving multi-country participation (Dillman, 2000; Harzing, 2000). Finally, follow-up phone calls to a number of non-respondents revealed a vast majority unwilling to participate due to lack of interest, lack of time (especially in light of airline business pressures), or a concern that management would frown on their taking company time to complete the survey.

Measures

Scales used in this research were derived from measures reported in the literature and adapted to suit the context of the study. Shown in Table IV is a list of selected scale items and their source. The initial pool of items was administered to 16 providers of aircraft component repair services from around the world. Respondents were asked to comment on language suitability and appropriateness of items to the industry domain. Changes to the questionnaire included a list of domain qualifiers. For example, the questionnaire was designed to restrict services to non-mission critical component repairs for the sake of performance evaluation consistency. Finally, scale items for satisfaction were derived from in-depth interviews for domain relevancy. Respondents were asked to comment on the items that best reflected the construct, as well as wording appropriate for the indicators. Items included seven-point Likert scales typically anchored on strongly agree and strongly disagree.

Table III Distribution of respondent countries for all 202 usable responses (Scored by Hofstede's Individualism/Masculinity Dimension)

Country (INDV/MASC Score)	Archetype	Cases
Abu Dhabi (25/50)	Cltv/Masc	(1)
Australia (90/61)	Indv/Masc	(12)
Austria (55/79)	Cltv/Masc	(1)
Belgium (75/54)	Indv/Femn	(1)
Bhutan (52/32)	Cltv/Femn	(2)
Brazil (38/49)	Cltv/Masc	(2)
Canada (80/52)	Indv/Femn	(20)
Chile (23/28)	Cltv/Femn	(1)
China (20/66)	Cltv/Masc	(1)
Croatia (33/40)	Cltv/Femn	(1)
Czech Republic (58/57)	Cltv/Masc	(1)
Denmark (74/16)	Indv/Femn	(3)
Finland (63/26)	Cltv/Femn	(2)
France (71/43)	Indv/Femn	(3)
French Polynesia (32/64)	Cltv/Masc	(1)
Germany (67/66)	Indv/Masc	(8)
Greece (35/57)	Cltv/Masc	(1)
Greenland (74/16)	Indv/Femn	(2)
Hong Kong (25/57)	Cltv/Masc	(1)
Iceland (60/10)	Cltv/Femn	(2)
India (48/56)	Cltv/Masc	(1)
Israel (54/47)	Cltv/Masc	(1)
Italy (76/70)	Indv/Masc	(2)
Japan (46/95)	Cltv/Masc	(1)
Jordan (30/45)	Cltv/Femn	(2)
Latvia (39/37)	Cltv/Femn	(1)
Luxembourg (60/50)	Cltv/Masc	(1)
Macau (20/50)	Cltv/Masc	(1)
Malaysia (26/50)	Cltv/Masc	(1)
Mexico (30/69)	Cltv/Masc	(1)
Nepal (30/40)	Cltv/Femn	(1)
New Zealand (79/58)	Indv/Masc	(1)
Norway (69/8)	Indv/Femn	(4)
Portugal (27/31)	Cltv/Femn	(2)
Slovakia (52/110)	Cltv/Masc	(1)
Spain (51/42)	Cltv/Femn	(5)
Sweden (71/5)	Indv/Femn	(1)
Switzerland (68/70)	Indv/Masc	(4)
Taiwan (17/45)	Cltv/Femn	(2)
Turkey (37/45)	Cltv/Femn	(2)
UK (89/66)	Indv/Masc	(8)
USA (91/62)	Indv/Masc	(93)

Data analysis and results

Measurement model

The conceptual model depicted in Figure 1 was tested using structural equation modeling (AMOS 4.0). Following the paradigm of scale development advocated by Gerbing and Anderson (1988), we developed a measurement model before estimating the structural paths to test hypothesized relationships. Scales were estimated simultaneously in a multiple-factor model. Specifically, a measurement model was estimated in which each item was restricted to load on its a priori factor, and the factors themselves were allowed to correlate. The measurement model was evaluated for uni-dimensionality, reliability, and convergent and discriminant validity. Tables V and VI summarize the reliability and factor analysis results for the measurement model.

Hypothesis testing

Given that our conceptualization of the constructs was supported empirically by the measurement model, we proceeded to evaluate the hypothesized structural relationships. Results of the model estimation are provided in Table VII. Fit statistics show that the model meets most of the criteria for "acceptable and even good fit" indices suggested by Jöreskog and Sörbom (1982) and Bentler

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Table IV Scale indicators and sources

Dependent variable		
Relationship strength (high order construct)		
Construct	rstrngth	
	Reluctance to search	
Construct	nosearch	
	noserch1	It is unlikely that we will be doing business with this supplier over the next few years (reverse)
	noserch2	We are continually on the lookout for another supplier to replace this supplier (reverse)
	noserch3	We find it necessary to be cautious with this supplier (reverse)
	Willingness to invest	
	Willing	Our relationship with this supplier deserves our maximum effort to maintain
	Share of purchases	
	patronag	Compared to alternative repair shops, this supplier services a larger volume of component parts
Mediators (endogenous)		
Switching costs and risks (Likert: strongly disagree anchored on 7, strongly agree anchored on 1)		
Construct	swtchcst	
	swchcst1	Switching to another supplier will involve great risk
	swchcst2	We believe it would be time consuming to build a relationship with a substitute at this time
	swchcst3	We will pay significant financial penalties if we terminate our relationship with this supplier
	swchcst4	Changing suppliers will be too disruptive for our business, so we continue to work with this one
Relationship quality (high order construct)		
	Satisfaction	
Construct	satisfac	
	satisfy1	The work performed by this supplier typically meets our expectations for life cycle reliability
	satisfy2	Turnaround time for work performed typically meets our expectations for service delivery
	satisfy3	The services provided by this supplier typically lead to our desired result
	satisfy4	In terms of services leading to desired results, this supplier compares favorably to competitors
	Trust in credibility and benevolence	
Construct	trust	
	trust1	This supplier understands how their services impact our operation
	trust2	When making important decisions, this supplier considers our welfare as well as its own
	trust3	This supplier is genuinely concerned about our business success
	trust4	This supplier has dedicated a great deal of time and effort to learn about our way of doing business
	trust5	We can count on this supplier to consider how their decisions and actions affect us in the future
	trust6	We believe the information that this supplier provides us
	trust7	This supplier is genuinely concerned about our personal wellbeing
	Affective commitment	
Construct	aftvcmmt	
	affcomm1	Our loyalty to this supplier is a major reason we continue to work with this supplier
	affcomm2	We want to stay associated with this supplier because of our allegiance to them
	affcomm3	We intend to continue working with this supplier because we feel they are "part of the family"
Exogenous variable		
Service quality (high order construct)		
Construct	value	
	value1	Service from this supplier is typically considered a good buy
	value2	At the price shown, service from this supplier is typically very economical/uneconomical
	value3	Service from this supplier is typically a good/poor value for the money
	value4	At the price expected, service is typically very acceptable/unacceptable
	value5	Compared to alternatives, the price for this supplier's services is reasonable
All Likert scales are anchored on 1 for strongly agree and anchored on 7 for strongly disagree		
Outcomes		
	Alternatives (Binomial); few or none anchored on 1; many anchored on 7	
	This supplier is:	
	one of several offering this type of service	
	the only supplier, or one of few suppliers, offering this type of service	

Table V Results of reliability and factor analysis

Cronbach alpha	Item-to-total correlation	Indicators	Mean[a]	SD	Factor loadings from oblique rotation							
0.927	0.717	TRUST1	2.62	1.37	0.779	0.221	−0.327	0.283	0.488	−0.551	0.158	−0.186
	0.798	TRUST2	3.15	1.44	0.800	0.183	−0.463	0.466	0.587	−0.476	−0.168	−0.180
	0.794	TRUST3	3.54	1.54	0.839	0.248	−0.450	0.334	0.445	−0.402	−0.313	−0.181
	0.723	TRUST4	3.72	1.49	0.776	0.262	−0.416	0.275	0.524	−0.339	−0.139	−0.302
	0.717	TRUST5	3.11	1.38	0.825	0.302	−0.307	0.142	0.433	−0.420	0.196	−0.093
	0.811	TRUST6	3.11	1.40	0.864	0.257	−0.397	0.340	0.433	−0.365	−0.366	−0.208
	0.747	TRUST7	3.61	1.63	0.751	0.331	−0.482	0.354	0.466	−0.421	−0.360	−0.154
	0.709	TRUST8	2.87	1.28	0.699	0.384	−0.387	0.285	0.591	−0.602	0.058	−0.094
0.806	0.704	SWCHCST1	4.20	1.74	0.403	0.814	−0.349	0.212	0.228	−0.247	−0.196	−0.316
	0.683	SWCHCST2	3.78	1.66	0.387	0.830	−0.345	0.164	0.171	−0.122	−0.226	−0.248
	0.532	SWCHCST3	5.47	1.67	0.120	0.593	−0.270	0.108	0.151	0.047	−0.001	−0.678
	0.574	SWCHCST4	4.76	1.66	0.095	0.803	−0.396	−0.171	0.008	−0.092	0.090	−0.155
0.873	0.746	AFTVCMT1	4.51	1.61	0.332	0.271	−0.892	0.183	0.246	−0.259	−0.048	−0.052
	0.797	AFTVCMT2	4.60	1.54	0.325	0.344	−0.906	0.056	0.182	−0.136	−0.050	−0.128
	0.726	AFTVCMT3	4.85	1.59	0.431	0.323	−0.863	0.267	0.349	−0.231	−0.129	−0.221
0.717	0.534	NOSERCH1	2.53	1.51	0.330	−0.014	−0.180	0.741	0.344	−0.435	−0.132	−0.136
	0.538	NOSERCH2	3.15	1.62	0.352	0.165	−0.256	0.799	0.387	−0.257	−0.099	−0.120
	0.539	NOSERCH3	2.43	1.52	0.280	0.005	−0.182	0.727	0.350	−0.390	0.309	−0.001
0.873	0.709	VALUE1	2.54	1.06	0.494	0.192	−0.289	0.225	0.785	−0.554	−0.236	−0.000
	0.708	VALUE2	2.88	1.11	0.429	0.093	−0.281	0.243	0.849	−0.388	−0.006	−0.168
	0.706	VALUE3	2.74	1.09	0.391	0.082	−0.273	0.434	0.791	−0.325	−0.300	−0.237
	0.756	VALUE4	2.48	1.09	0.559	0.071	−0.312	0.420	0.788	−0.568	−0.248	−0.192
	0.635	VALUE5	2.90	1.24	0.435	0.063	−0.170	0.344	0.798	−0.368	0.107	−0.195
0.866	0.844	SATISFY1	2.49	1.12	0.399	0.102	−0.345	0.326	0.426	−0.800	0.064	−0.173
	0.851	SATISFY2	2.69	1.26	0.501	0.042	−0.237	0.358	0.502	−0.688	−0.074	−0.325
	0.821	SATISFY3	2.34	1.02	0.518	0.200	−0.276	0.419	0.535	−0.812	−0.101	−0.208
	0.827	SATISFY4	2.53	1.12	0.495	0.255	−0.227	0.405	0.483	−0.795	−0.154	−0.220
	0.845	SATISFY5	2.86	1.18	0.478	0.301	−0.419	0.246	0.583	−0.616	−0.187	−0.505
		WILLING	4.05	1.63	0.375	0.462	−0.294	−0.015	0.341	−0.270	−0.537	−0.029
		PATRONAG	3.07	1.29	0.315	0.215	−0.173	0.073	0.270	−0.390	−0.005	−0.762

Note: [a]1 = strongly agree; 7 = strongly disagree

Table VI Results of factor analysis

Factor intercorrelations	ALTERNAT	FLEETSZE	AFTVCMMT	SATISFAC	TRUST	SWTCHCST	PATRONAG	NOSEARCH	WILLING	VALUE
ALTERNAT	1.00									
FLEETSZE	−0.269***	1.00								
AFTVCMMT	ns	ns	1.00							
SATISFAC	−0.251***	ns	0.389***	1.00						
TRUST	−0.214**	ns	0.516***	0.689***	1.00					
SWTCHCST	ns	ns	0.432***	0.336***	0.407***	1.00				
PATRONAG	ns	ns	0.187**	0.423***	0.356***	0.326***	1.00			
NOSEARCH	−0.292**	ns	0.276***	0.531***	0.500***	ns	0.205***	1.00		
WILLING	ns	ns	0.307***	0.313***	0.414***	0.378***	0.220**	ns	1.00	
VALUE	−0.377***	ns	0.335***	0.678***	0.676***	0.191**	0.310***	0.519***	0.333***	1.00

Notes: $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; ns = not significant

(1990). Moreover, the study findings confirm the improved fit for the proposed model.

Although the chi-square statistic was statistically significant ($\chi^2(358) = 517$; $p = 0.00$), other fit statistics (Normed chi square < 2; Standardized RMR = 0.06; CFI = 0.96; IFI = 0.96; RMSEA = 0.05) suggest that the model provides a reasonable fit to the data. Results indicate that variables included in the model also explain a relatively large portion of the variance in relationship strength (47 percent). These results suggest that the model is a reasonable basis upon which to test our research hypotheses.

Results for antecedents

Beginning with relationship strength, the results show this behavioral outcome to be largely influenced by a buyer's sentiments of allegiance, a confidence that the supplier will work on the supplier's behalf, and a sense of satisfaction that the supplier lives up to expectations (i.e. the affective commitment, trust and satisfaction dimensions of relationship quality). This combined influence that relationship quality has on strength supports *H1* ($\beta = 0.322$, $p < 0.001$). Similarly, support for *H2* ($\beta = 0.146$, $p < 0.001$) suggests that switching costs do indeed serve as a form of exit

Table VII Fit statistics for measurement models (Model fit indices: results compared to good fit)

Measures of fit	Reasonable estimate	Well fit	Model results	Assessment	Rival model number 1	Rival model number 2
Normed Chi-Square (χ^2/df)	<5.0	<2.0 to 3.0	1.44 (477/331)	Excellent fit	1.56 (522/334)	2.77 (932/337)
Standardized RMR (root mean square residual)	<0.08	<0.05	0.058	Reasonable fit	0.121	nm
Goodness of Fit Index (GFI)	>0.90	>0.95	0.867	Close to reasonable fit	0.859	0.758
Normed Fit Index (NFI)	>0.90	>0.95	0.880	Close to reasonable fit	0.868	0.765
Relative Fit Index (RFI)	>0.90	>0.95	0.842	Weak fit	0.829	0.696
Incremental Fit Index (IFI)	>0.90	>0.95	0.960	Excellent fit	0.948	0.836
Tucker-Lewis Coefficient	>0.90	>0.95	0.946	Reasonable fit	0.931	0.782
Comparative Fit Index (CFI)	>0.90	>0.95	0.959	Excellent fit	0.947	0.831
Root Mean Square Error of Approximation (RMSEA)	<0.08	<0.05	0.047	Excellent fit	0.053	0.094

barrier that tie buyers to the service provider. Finally, strong support for *H4* ($\beta = 0.317$, $p < 0.001$) suggests that buyers will rationalize whether the sum of benefits outweighs sacrifices (i.e. perceived value) in their decision to continue with an incumbent. No support was given, however, to the positive influence that firm size has on relationship strength.

Results for mediating influences

In order to test the mediation effects of switching costs and relationship quality, two rival models were examined. In the first model, shown in Figure 4, the mediation effects from switching costs are removed. From Table VII, we see that the resulting fit statistics for our proposed model are an improvement over this model when examined across all relevant fit measures. Similarly, when the mediating effects of both relationship quality and switching costs are removed (see Figure 5), the proposed model and first rival model show better fit statistics in comparison to this second rival model.

Further examination of the standardized regression weights in Table VIII supports the mediating influences of relationship quality and switching costs. For example, strong support for *H3* ($\beta = 0.665$, $p < 0.001$) suggests that buyers do in fact consider relationship quality as a switching impediment. Coupled with the support for *H2*, this implies that switching costs mediate the influence that relationship quality has on relationship strength. i.e. Buyers will stay with their incumbent suppliers not just out of perceived relationship quality, but to the point that the relationship contributes to a form of psychological barrier.

Similarly, support for *H5* ($\beta = 0.693$, $p < 0.001$) suggests that relationship quality, in turn, mediates the influence that perceived value has on relationship strength. This resonates with much of the relationship value literature that suggests buyers look beyond mere service transactions to the impact that these accumulated episodes have on building satisfaction and trust over time.

Results of national culture moderation

No support is given for the impact that national culture has as on moderating the social and economic aspects of relationship

Figure 4 Rival model one – relationship quality mediation only

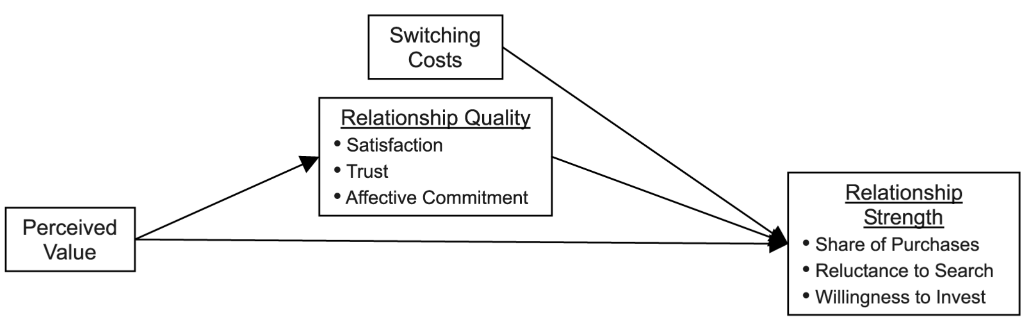

Figure 5 Rival model two – direct effects only

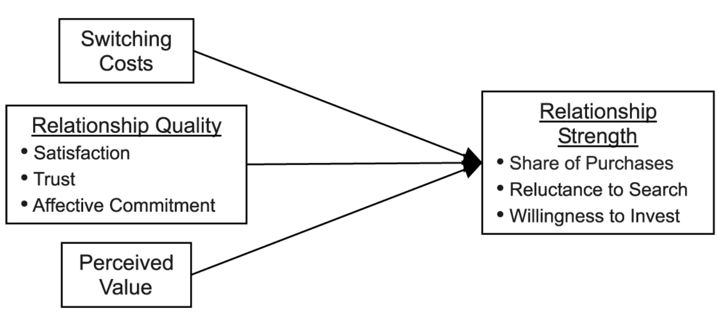

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Table VIII Results of hypothesis testing

Test	Hypotheses	Standardized beta coefficients Total sample	Collectivism/ femininity	Individualism/ masculinity
Supports *H1*	*H1.* Relationship quality positively influences relationship strength	0.322***		
Supports *H2*	*H2.* Switching costs positively influence relationship strength	0.146***		
Supports *H3*	*H3.* Switching costs mediate the influence that relationship quality has on relationship strength			
	Relationship quality → Switching costs	0.665***		
	Switching costs → Relationship strength	0.146***		
Supports *H4*	*H4.* Perceived value positively influences relationship strength	0.317***		
Supports *H5*	*H5.* Relationship quality mediates the influence that perceived value has on relationship strength			
	Perceived value → Relationship quality	0.693***		
	Relationship quality → Relationship strength	0.322***		
Rejects *H6*	*H6.* National collectivism/femininity positively moderates the influence that relationship quality has on relationship strength		0.276*	0.345***
Rejects *H7*	*H7.* National individualism/masculinity positively moderates the influence that perceived value has on relationship strength		0.318*	0.333***
Supports *H8*	*H8.* Relationship strength negatively influences the perceived number of alternatives	−0.192**		
Rejects *H9*	*H9.* Firm size influences relationship strength	ns		

Notes: ***$p < 0.001$; **$p < 0.01$; *$p < 0.10$

strength. In order to examine the moderation effects, a split sample comparison was selected for analysis. Respondents scoring high on the mean value of Hofstede's (1983) individualistic and masculinity dimensions were selected as one group. Those scoring high on collectivism and femininity were selected as another. Results displayed in Table VIII show no meaningful difference across samples in the regression weights assigned to the link between relationship quality and relationship strength. This resulting rejection of *H6* ($\beta = 0.276$, $p < 0.05$ for collective/feminine compared to $\beta = 0.345$, $p < 0.001$ for individualistic/masculine) implies that the culture of the collective/feminine nature of the buyer's country of origin may not in fact impact the degree of social orientation proposed in this study. Similarly, results show no meaningful difference across samples in the regression weights assigned to the link between perceived value and relationship strength. This resulting rejection of *H7* ($\beta = 0.318$, $p < 0.05$ for collective/feminine compared to $\beta = 0.333$, $p < 0.001$ for individualistic/masculine) implies that the individualistic/masculine nature of the buyer's country of origin may not in fact impact the degree of economic orientation also proposed in the study.

Results of strength outcomes

Results of the test for relationship strength influences on its outcome supports *H8* ($\beta = -0.192$, $p < 0.01$). The negative value implies that strength contributes to substitution scarcity (reverse of available alternatives). This finding confirms the notion that strong relationships lead to switching barriers that narrow the scope of a buyer's evoked set of suitable substitutes.

Discussion

Consistent with the literature, this research confirms that relationship strength is influenced by social factors (as measured by relationship quality) as well as economic factors (as estimated by perceived value and switching costs). The study further confirms that buyers assign nearly equal weight to the economic and social factors when deciding to stay with an incumbent supplier. Collectively, the combination of value and switching costs accounts for 40 percent of the explained variance in relationship strength. Similarly, when constrained as the sole determinant of relationship strength, relationship quality accounts for 39 percent of the explained variance. This suggests that models predictive of relationship strength should represent aspects of the offer as well as the relationship itself.

While our results demonstrate that both social and economic antecedents contribute to relationship strength, the degree of orientation is not impacted by national culture as predicted. One possible explanation relates to the tight correlation between country collectivism and national poverty. Hofstede (1983), along with these study results, show an R^2 of nearly 80 percent when correlating collectivism scores with GDP per capita (see Table IX). This suggests that a counter-effect to the economic orientation proposed for individualistic nations is the high scrutiny placed on value because of limited buyer wealth.

Our findings also show that switching costs do in fact play a key role in determining a buyer's intent to stay with an incumbent. This supports earlier transaction cost theories, along with related studies in calculative commitment, dependency and structural bonds. These results validate that a buyer's reluctance to change suppliers is often based out of necessity. On the other hand, the significantly positive relationship between relationship quality and relationship strength supports the notion that buyers commit out of desire as well.

In addition to search reluctance, the degree of perceived switching cost, value and relationship quality felt by a buyer has much to do with their willingness to invest in the

Table IX Correlation of nation wealth and individualism

Country (individualism score)	GDP per capita (PPP, 2003)	Cases
Abu Dhabi (25)	$23,200	(1)
Australia (90)	$28,900	(12)
Austria (55)	$30,000	(1)
Belgium (75)	$29,000	(1)
Bhutan (52)	$1,300	(2)
Brazil (38)	$7,600	(2)
Canada (80)	$29,700	(20)
Chile (23)	$9,900	(1)
China (20)	$5,000	(1)
Croatia (33)	$10,700	(1)
Czech Republic (58)	$15,700	(1)
Denmark (74)	$31,200	(3)
Finland (63)	$27,300	(2)
France (71)	$27,500	(3)
French Polynesia (32)	$17,500	(1)
Germany (67)	$27,600	(8)
Greece (35)	$19,900	(1)
Greenland (74)	$20,000	(2)
Hong Kong (25)	$28,700	(1)
Iceland (60)	$30,900	(2)
India (48)	$2,900	(1)
Israel (54)	$19,700	(1)
Italy (76)	$26,800	(2)
Japan (46)	$28,000	(1)
Jordan (30)	$4,300	(2)
Latvia (39)	$10,100	(1)
Luxembourg (60)	$55,100	(1)
Macau (20)	$19,400	(1)
Malaysia (26)	$9,000	(1)
Mexico (30)	$9,000	(1)
Nepal (30)	$1,400	(1)
New Zealand (79)	$21,600	(1)
Norway (69)	$37,700	(4)
Portugal (27)	$18,000	(2)
Slovakia (52)	$13,300	(1)
Spain (51)	$22,000	(5)
Sweden (71)	$26,800	(1)
Switzerland (68)	$32,800	(4)
Taiwan (17)	$23,400	(2)
Turkey (37)	$6,700	(2)
UK (89)	$32,800	(8)
USA (91)	$37,800	(93)

relationship as well as to provide expanded business opportunities to the supplier. As shown in Table X, each of the relationship strength dimensions are effected to varying degrees by switching costs, value and relationship quality. From the results on share of purchases, we could safely conclude that buyers do not necessarily invest in relationships nor extend broader business opportunities to suppliers that simply have superior offerings. Awards of expanded business opportunities, however, are driven primarily by switching costs and value and not by relationship quality. This is consistent with industry commentary which suggests that share of purchases has more to do with vendor support infrastructures than aspects of the relationship.

Table X Impact of relationship strength determinants on strength dimensions

Independent	Dependent	Std regression wts
Relationship quality	Willingness to invest	0.185^{*}
Switching costs	Willingness to invest	0.256^{***}
Perceived value	Willingness to invest	0.162^{*}
Relationship quality	Share of purchases	ns
Switching costs	Share of purchases	0.219^{**}
Perceived value	Share of purchases	0.167^{*}
Relationship quality	Reluctance to search	0.351^{***}
Switching costs	Reluctance to search	ns
Perceived value	Reluctance to search	0.310^{***}

Notes: $^{***}p < 0.001$; $^{**}p < 0.01$; $p < 0.05$

Theoretical contributions

This study contributes to scholarly literature in a number of ways. First, a nomological structure for relationship strength is proposed and tested in the context of global B2B services that blends theories gathered from the services marketing, transaction cost economics and relationship marketing literature. The study provides empirical support for those that suggest that value, relationship quality and switching costs have to be assessed when developing buyer relationships. Moreover, the findings infer that the development of lasting relationships involves a complex interplay of economic and social factors over the course of time. For example, much like that found for consumer services, the study results confirm that perceived value of a service provider's offer does indeed play a role in formulating lasting relationships. In other words, buyers will only continue with a relationship when they perceive that the overall benefits from the relationship exceed their costs. By itself, however, it explains for less than a third of the variation in relationship strength. Much of the influence is mediated through relationship quality. This supports the notion that best value is not just an objective selection criterion, but a relational enhancer. For example, this value perception offers assurance (trust) to the buyer that expectations relevant to desired outcomes will be met (satisfaction) in the future. In fact, some argue that this sensitivity to value increases over the relationship duration as buyers expect more from their suppliers. The key point here is that ongoing observations of value contribute to perceptions of relationship quality as the relationship progresses.

Similarly, the study results contribute to theories underlying switching costs and their link to relationship quality. The strong support demonstrated for both constructs as relationship strength determinants supports the view of Roberts *et al.* (2003) that buyers commit voluntarily (e.g. via perceptions of relationship quality) and through capture (e.g. by building switching costs). Moreover, the mediating influence of switching costs supports the view of that relationships built out of desire could lead to perceptions of higher switching costs. For example, the cost of building a new relationship is what is holds buyers captive to their incumbent suppliers.

Finally the study is based on an international data set that extends across several culturally diverse countries. Since most empirical research in this field has been based on data collected in the USA, the study provides a more globally relevant framework in which to examine relationship strength.

As noted by Cannon and Homburg (2001), "hypothesis testing with international data is a valuable contribution to theory development" (p. 39).

Managerial implications

Our study findings have several practical implications for service managers. First, the study strongly supports the conceptualization of relationship quality as an important mediating factor in building profitable relationships in a B2B services setting. Research cited throughout this study demonstrates that substantial dividends are reaped by companies that focus more on customer retention than the acquisition of new customers. This particular study further demonstrates that the key to maximizing this retention is the creation of a service atmosphere that:

- builds value over time;
- promotes buyer confidence (trust); and
- challenges itself to exceed expectations (satisfaction).

The resulting buyer satisfaction and trust will then complement a sentiment of allegiance that builds over time (i.e. relationship quality) and ultimately ensures the continuity of the relationship, while restricting the number of viable alternatives recognized by the buyer. Moreover, this relationship quality will, in itself, create switching costs as the buyer recognizes the efforts, sentiments and benefits forgone by switching.

Second, the study underlines the importance cited by researchers (Bolton *et al.*, 2003) in striking the right balance between social or economic resources when designing service programs. Too often, service managers focus on "the deal" or "the deliverables" and neglect to appreciate the intricate play of relational factors on building customer retention. As a result, they overlook the opportunity to build quality relationships that signal their intentions to cooperate or a willingness to sacrifice their own interests for the sake of the buyer. Although a selection process may typically begin with hard evidence of the service provider's superior offering (e.g. perceived value), buyers often resort to subjective assessments of the relationship itself when deciding to expand patronage with a supplier or to invest further in the relationship.

Service managers are therefore encouraged to train and compensate their front-line employees (FLEs) on customer relationship management behaviors and not just aspects of the deal. This training should ensure that FLEs understand some of the intangible facets of relationship marketing that build trust accounts with their buyers over time. This is especially challenging in the USA where compensation systems and sales training programs are designed to be bottom line oriented and are therefore inherently opportunistic. Witness the many organizations structured around elements of the marketing mix (price, promotion, distribution and product) rather than relationship building processes.

This is not to say, that aspects of the offer take a back seat to the social aspects of the relationship. In fact, this study concludes that perceptions of offer value are required to cultivate the quality of relationship perceived by the buyer. On the other hand, providing value in the form of a superior offer is not sufficient to get a buyer to award a greater share of business or to invest in the relationship. Instead, a quality relationship based on high levels of satisfaction, trust and strong sentiments of allegiance, is required to achieve business expansion and longevity.

Managers are therefore encouraged to continually monitor their customer relationship management strategies along relationship quality dimensions in addition to observing the more tangible aspects of account health (e.g. short-term ROI from the buyer). For example, it behooves service managers to understand the expectations surrounding a buyer's sense of satisfaction as well as their confidence that the service provider will deliver on their promises (i.e. trust).

Study limitations and suggestions for further research

According to other multi-cultural studies, collective/feminine (low wealth) nations place a higher emphasis on the interpersonal aspects of a relationship. The split sample comparison of regression coefficients does not support this conclusion, nor does it support the more economic-centric orientation of individualistic/masculine cultures. Perhaps a more balanced representation of culture would have yielded statistically significant results. The sample was skewed in favor of individualist countries.

Also, like many other B2B service settings, the data sample is comprised of segments that may have been inordinately impacted by industry crises and bottom line economics. For example, approximately 18 percent of the sampled aviation maintenance buyers were from North American commercial airlines that arguably were anomalously impacted by September 11 events. Another 4 percent from South America were indirectly strained by recessionary impacts at the time. As one South American respondent states:

> ... I would have answered these questions differently a few years back ... Airlines today are putting far more emphasis on the bottom line as the industry struggles for survival.

This view reflects the opinions of some that collectivist nations may be compromising their traditional social orientation in favor of economic necessities. Consequently, an argument could be raised that the sampled population may not be considered a fair representation of the greater B2B services sector.

The authors argue the relevance of this data set, however, following a test for homogeneity. For example, *t*-tests prescribed by Armstrong and Overton (1977) were performed along several dimensions such as switching costs, relationship quality and relationship strength. No significant differences were found across each dimension between the more 9/11 vulnerable commercial airline respondents and the cargo, helicopter and charter airline samples. This leads the authors to conclude that a post-9/11 bias was not a problem. The authors encourage future researchers to apply similar *t*-tests when extending the study domain to different industry sectors and more evenly distributed cultural samples.

Other limitations relate to scale development and causal inference. Although the scales items were subjected to a rigorous examination of wording and contextual fit during the second series of interviews and the pre-test, the latter served more as a language and domain context check. Also, given that the questionnaire was administered in English, the nature of some behavioral oriented questions could have different interpretations with overseas buyers despite language editing after the pre-test. Finally, given the cross-sectional nature of the study, we can only conclude influences between relationships and not causal direction. Confirmation of causal direction would require a longitudinal study.

Further research is encouraged to determine if other relational variables (e.g. opportunism, sales effectiveness, relationship age, relationship investments, service quality, customer orientation, cooperation, word-of-mouth referrals and conflict resolution) can enrich the field of relationship marketing. Although results of this study are promising, additional study is required to examine its relevance beyond industrial services. Researchers are therefore encouraged to investigate similar models or model extensions that include the role of products as well as consumer and professional services.

Conclusion

The study results are encouraging in their support of the literature that advocates relationship strength building in a new economy. Nearly half of the explained variance for relationship strength is accounted for by relationship quality, switching costs and perceived value. This validates the notion that buyers not only form cognitive judgments on the service provider's performance and offer proposition, but also on affective attachments from satisfaction with the supplier's performance; trust in their credibility and benevolence; and sentiments of allegiance attached to the supplier.

By knowing a buyer's predisposition to rational-oriented or sentiment-based attachments, suppliers can better orient themselves to the buyer's nature, thereby increasing the likelihood for an enduring bond. Furthermore, the study demonstrates the degree to which trust, satisfaction, commitment, switching costs, and perceived value all interact in forming relationship strength.

References

Abdul-Muhmin, A.G. (2003), "Instrumental and interpersonal determinants of relationship satisfaction and commitment in industrial markets", *Journal of Business Research*, Vol. 58, pp. 619-28.

Andaleeb, S.S. (1996), "An experimental investigation of satisfaction and commitment in marketing channels: the role of trust and dependence", *Journal of Retailing*, Vol. 72 No. 1, pp. 77-93.

Anderson, E., Fornell, C. and Rust, R. (1997), "Customer satisfaction, productivity, and profitability: differences between goods and services", *Marketing Science*, Vol. 16 No. 2, pp. 129-47.

Anderson, J.C. (1995), "Relationships in business markets: exchange episodes, value creation, and their empirical assessment", *Journal of Academy of Marketing Science*, Vol. 23 No. 4, pp. 346-50.

Anderson, J.C. and Narus, J.A. (1990), "A model of distributor firm and manufacturer firm working partnerships", *Journal of Marketing*, Vol. 54, January, pp. 42-58.

Anderson, E. and Weitz, B. (1992), "The use of pledges to build and sustain commitment in distribution channels", *Journal of Marketing Research*, Vol. XXIX, February, pp. 18-34.

Armstrong, J. and Overton, T. (1977), "Estimating non-response bias in mail surveys", *Journal of Marketing Research*, Vol. 14 No. 3, pp. 396-402.

Barry, J. and Johnson, W. (2004), "Value and trust determinants in industrial after-sales: the mediating role of goal congruence", *AMA Winter Educator Conference Proceedings*, American Marketing Association, Chicago, IL.

Bentler, P.M. (1990), "Comparative fit indices in structural models", *Psychological Bulletin*, Vol. 107, pp. 238-46.

Berry, L.L. (1983), "Relationship marketing", in Berry, L.L., Shostack, G.L. and Upah, G. (Eds), *Emerging Perspectives on Services Marketing*, American Marketing Association, Chicago, IL, pp. 25-8.

Boles, J.S., Johnson, J.T. and Barksdale, H.C. Jr (2000), "How salespeople build quality relationships: a replication and extension", *Journal of Business Research*, Vol. 48 No. 1, p. 75.

Bolton, R.N. (1998), "A dynamic model of the duration of the customer's relationship with a continuous service provider: the role of satisfaction", *Marketing Science*, Vol. 17 No. 1, pp. 45-65.

Bolton, R.N. and Drew, J.H. (1991), "A multistage model of customers' assessments of service quality and value", *Journal of Consumer Research*, Vol. 17 No. 4, pp. 375-84.

Bolton, R.N., Smith, A. and Wagner, J. (2003), "Striking the right balance: designing service to enhance business-to-business relationships", *Journal of Service Research*, Vol. 5 No. 4, pp. 271-91.

Bove, L.L. and Johnson, L.W. (2001), "Customer relationships with service personnel: do we measure closeness, quality or strength?", *Journal of Business Research*, Vol. 54, pp. 189-97.

Cannon, J.P. and Homburg, C. (2001), "Buyer-supplier relationships and customer firm costs", *Journal of Marketing*, Vol. 65, pp. 29-43.

Caruana, A. (2004), "The impact of switching costs on customer loyalty: a study among corporate customers of mobile telephony", *Journal of Targeting, Measurement and Analysis for Marketing*, Vol. 12 No. 3, pp. 256-68.

Chang, T.Z. and Wildt, A.R. (1994), "Price, product information, and purchase intention: an empirical study", *Academy of Marketing Science*, Vol. 22 No. 1, pp. 16-27.

Crosby, L., Evans, K. and Cowels, D. (1990), "Relationship quality in services selling: an interpersonal influence perspective", *Journal of Marketing*, Vol. 54 No. 3, pp. 68-81.

de Ruyter, K., Moorman, L. and Lemmink, J. (2001), "Antecedents of commitment and trust in customer-supplier relationships in high technology markets", *Industrial Marketing Management*, Vol. 30 No. 3, p. 271.

de Ruyter, K., Wetzels, M. and Bloemer, J. (1998), "On the relationship between perceived service quality, service loyalty and switching costs", *International Journal of Service Industry Management*, Vol. 9 No. 5, p. 436.

De Wulf, K., Odekerken-Schroder, G. and Iacobucci, D. (2001), "Investments in consumer relationships: a cross-country and cross-industry exploration", *Journal of Marketing*, Vol. 65 No. 4, pp. 33-50.

Dillman, D.A. (2000), *Mail and Internet Surveys: The Tailored Design Method*, 2nd ed., John Wiley & Sons, New York, NY.

Donaldson, B. and O'Toole, T. (2000), "Classifying relationship structures: relationship strength in industrial markets", *The Journal of Business and Industrial Marketing*, Vol. 15 No. 7, pp. 491-506.

Doney, P.M., Cannon, J.P. and Mullen, M.R. (1998), "Understanding the influence of national culture on the development of trust", *Academy of Management Review*, July, pp. 601-20.

Dorsch, M.J., Swanson, S.R. and Kelley, S.W. (1998), "The role of relationship quality in the stratification of vendors as perceived by customers", *Journal of the Academy of Marketing Science*, Vol. 26 No. 2, pp. 128-42.

Dwyer, F.R., Schurr, P.H. and Oh, S. (1987), "Developing buyer-seller relationships", *Journal of Marketing*, Vol. 51, April, pp. 11-27.

Eggert, A. and Ulaga, W. (2002), "Customer perceived value: a substitute for satisfaction in business markets", *Journal of Business and Industrial Marketing*, Vol. 17 Nos 2/3, pp. 107-18.

Fletcher, G.P. (1993), *Loyalty: An Essay on the Morality of Relationships*, Oxford University Press, New York, NY.

Flint, D.J. and Woodruff, R.B. (2001), "The initiators of changes in customers' desired value", *Industrial Marketing Management*, Vol. 30, pp. 321-37.

Friman, M., Garling, T., Millet, B., Mattsson, J. and Johnston, R. (2002), "An analysis of international business-to-business relationships based on the commitment-trust theory", *Industrial Marketing Management*, Vol. 21, pp. 403-9.

Furrer, O., Ching Liu, B.S. and Sudharshan, D. (2000), "The relationships between culture and service quality perceptions", *Journal of Service Research*, Vol. 2 No. 4, pp. 355-71.

Garbarino, E. and Johnson, M.S. (1999), "The different roles of satisfaction, trust, and commitment in customer relationships", *Journal of Marketing*, Vol. 63 No. 2, pp. 70-87.

Gerbing, D.W. and Anderson, J.C. (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment", *Journal of Marketing Research*, Vol. 25, May, pp. 186-92.

Geyskens, I., Steenkamp, E.M., Scheer, L.K. and Kumar, N. (1996), "The effects of trust and interdependence on relationship commitment: a Trans-Atlantic study", *International Journal of Research in Marketing*, Vol. 13 No. 4, pp. 303-17.

Gilliland, D.L. and Bello, D.C. (2002), "Two sides to attitudinal commitment: the effect of calculative and loyalty commitment on enforcement mechanisms in distribution channels", *Journal of the Academy of Marketing Science*, Vol. 30 No. 1, pp. 24-43.

Grisaffe, D.B. and Kumar, A. (2002), "Antecedents and consequences of customer value: testing an expanded framework", Marketing Science Institute, Cambridge, MA, Report no. 98-107.

Gronhaug, K. and Gilly, M.C. (1991), "A transaction cost approach to consumer dissatisfaction and complaint actions", *Journal of Economic Psychology*, Vol. 12 No. 1, pp. 165-83.

Grönroos, C. (1995), "The rebirth of modern marketing – six propositions about relationship marketing", Working Paper No. 307, Swedish School of Economics and Business Administration, Helsinki.

Gundlach, G.T., Achrol, R.S. and Mentzer, J.T. (1995), "The structure of commitment in exchange", *Journal of Marketing*, Vol. 59 No. 1, pp. 78-92.

Gwinner, K.P., Gremler, D.D. and Bitner, M.J. (1998), "Relational benefits in services industries: the customer's perspective", *Journal of Academy of Marketing Science*, Vol. 26 No. 2, pp. 101-14.

Harris, L.C. and Goode, M.M.H. (2004), "The four levels of loyalty and the pivotal role of trust: a study of online service dynamics", *Journal of Retailing*, Vol. 80 No. 2, p. 139.

Harzing, A.W. (2000), "Cross-national industrial mail surveys: why do response rates differ between countries?", *Industrial Marketing Management*, Vol. 29 No. 3, p. 243.

Hennig-Thurau, T. and Klee, T. (1997), "The impact of customer satisfaction and relationship quality on customer retention: a critical reassessment and model development", *Psychology & Marketing*, Vol. 14 No. 8, pp. 737-64.

Hennig-Thurau, T., Gwinner, K.P. and Gremler, D.D. (2002), "Understanding relationship marketing outcomes: an integration of relational benefits and relationship quality", *Journal of Service Research*, Vol. 4 No. 3, pp. 230-47.

Hewett, K. and Bearden, W.O. (2001), "Dependence, trust, and relational behavior on the part of foreign subsidiary marketing operations: implications for managing global marketing operations", *Journal of Marketing*, Vol. 65, October, pp. 51-66.

Hewett, K., Money, B. and Sharma, S. (2002), "An exploration of the moderating role of buyer corporate culture in industrial buyer-seller relationships", *Journal of Academy of Marketing Science*, Vol. 30 No. 3, pp. 229-39.

Hirshman, A.O. (1970), *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations, and States*, Harvard University Press, Cambridge, MA.

Hofstede, G. (1980), *Culture's Consequences*, Sage, Beverly Hills, CA.

Hofstede, G. (1983), "National cultures in four dimensions: a research-based theory of cultural differences among nations", *International Studies of Management and Organization*, Vol. XIII Nos 1-2, pp. 46-74.

Hogan, J. (1998), "Assessing relationship value in business markets", dissertation, UNC Kenan-Flagler Business School, Chapel Hill, NC.

Hogan, K.E. (2001), "Expected relationship value: a construct, a methodology for measurement, and a modelling technique", *Industrial Marketing Management*, Vol. 30 No. 4, pp. 339-51.

Holmlund, M. and Kock, S. (1995), "Buyer perceived service quality in industrial networks", *Industrial Marketing Management*, Vol. 24 No. 2, pp. 109-21.

Iacobucci, D. and Hibbard, J.D. (1999), "Toward an encompassing theory of business marketing relationships (BMRS) and interpersonal commercial relationships (ICRS): an empirical generalization", *Journal of Interactive Marketing*, Vol. 13 No. 3, pp. 13-33.

Johnson, D. and Grayson, K. (2005), "Cognitive and affective trust in service relationships", *Journal of Business Research*, Vol. 58 No. 4, p. 500.

Jöreskog, K.G. and Sörbom, D. (1982), "Recent developments in structural equation modeling", *Journal of Marketing Research*, Vol. XIX, November, pp. 404-16.

Kale, S.H. (1995), "Cultural domain of transnational strategic alliances", *Proceedings of the American Marketing Association Summer Conference*, pp. 443-9.

Kim, K. and Frazier, G.L. (1997), "On distributor commitment in industrial channels for distribution: a multicomponent approach", *Psychology and Marketing*, Vol. 14 No. 8, pp. 847-77.

Kim, U., Triandis, H.C., Kagitcibasi, C., Choi, S. and Yoon, G. (1994), *Individualism and Collectivism: Theory, Method, and Applications*, Sage, Thousand Oaks, CA.

Kim, W.G. and Cha, Y. (2002), "Antecedents and consequences of relationship quality in hotel industry", *Hospitality Management*, Vol. 21, pp. 321-38.

Kumar, N., Scheer, L.K. and Steenkamp, J-B.E.M. (1995), "The effects of supplier fairness on vulnerable resellers", *Journal of Marketing Research*, Vol. XXXVII, February, pp. 54-65.

Lee, J., Lee, J. and Feick, L. (2001), "The impact of switching costs on the customer satisfaction-loyalty link", *Journal of Service Marketing*, Vol. 15 No. 1, pp. 35-48.

Lee, M. and Cunningham, L. (2001), "A cost/benefit approach to understanding loyalty", *Journal of Service Marketing*, Vol. 15 No. 2, p. 113.

Leuthesser, L. (1997), "Supplier relational behavior: an empirical assessment", *Industrial Marketing Management*, Vol. 26 No. 3, pp. 245-54.

Liljander, V. and Roos, I. (2002), "Customer-relationship levels – from spurious to true relationships", *The Journal of Services Marketing*, Vol. 16 No. 7, pp. 593-614.

Liljander, V. and Strandvik, T. (1993), "Estimating zones of tolerance in perceived service quality and perceived service value", *International Journal of Service Industry Management*, Vol. 4 No. 2, pp. 6-28.

Macintosh, G. and Lockshin, L.S. (1997), "Retail relationships and store loyalty: a multi-level perspective", *International Journal of Research in Marketing*, Vol. 14 No. 5, pp. 487-97.

Mathieu, J.E. and Zajac, D. (1990), "A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment", *Psychological Bulletin*, Vol. 108 No. 2, pp. 171-94.

Mittal, B. (1999), "Determinants of vendor patronage", *Journal of Business-to-Business Marketing*, Vol. 6 No. 4, pp. 1-32.

Moller, K.E.K. and Torronen, P. (2003), "Business suppliers' value creation potential: a capability-based analysis", *Industrial Marketing Management*, Vol. 32 No. 2, p. 109.

Moorman, C., Deshpande, R. and Zaltman, G. (1993), "Factors affecting trust in market research relationships", *Journal of Marketing*, Vol. 57, January, pp. 81-101.

Morgan, R.M. and Hunt, S.D. (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58, July, pp. 20-38.

Oliver, R.L. (1997), *Satisfaction: A Behavioral Perspective*, McGraw-Hill, New York, NY.

Oliver, R.L. (1999), "Whence consumer loyalty?", *Journal of Marketing*, Vol. 63, pp. 33-44.

Ouchi, W.G. (1980), "Markets, bureaucracies, and clans", *Administrative Science Quarterly*, Vol. 25, March, pp. 129-41.

Ouchi, W.G. and Wilkens, A.L. (1985), "Organizational culture", *Annual Review of Sociology*, Vol. 11, pp. 457-83.

Parasuraman, A. and Grewal, D. (2000), "The impact of technology on the quality-value-loyalty chain", *Journal of the Academy of Marketing Science*, Vol. 28 No. 1, pp. 168-74.

Parasuraman, A., Berry, L.L. and Zeithaml, V.A. (1991), "Understanding customer expectations of service", *Sloan Management Review*, Spring, pp. 39-48.

Pascale, R.T. and Athos, A.G. (1981), *The Art of Japanese Management*, Warner, New York, NY.

Peterson, R.B. and Shimada, J.Y. (1978), "Sources of management problems in Japanese-American joint ventures", *Academy of Management Review*, Vol. 3, pp. 796-804.

Pressey, A.D. and Selassie, H.G. (2003), "Are cultural differences overrated?", *Journal of Consumer Behaviour*, Vol. 2 No. 4, p. 354.

Randall, D.M. (1993), "Cross-cultural research on organizational commitment: a review and application of Hofstede's value survey module", *Journal of Business Research*, Vol. 26, pp. 91-110.

Ravald, A. and Gronroos, C. (1996), "The value concept and relationship marketing", *European Journal of Marketing*, Vol. 30 No. 2, pp. 19-30.

Reichheld, F.F. and Sasser, W.E. (1990), "Zero defections: quality comes to services", *Harvard Business Review*, Vol. 68, September/October, pp. 105-11.

Rexha, N. (2000), "Integrating relationship marketing activities with offering quality in the supplier's relational marketing program", *Journal of Business-to-Business Marketing*, Vol. 7 No. 1, pp. 1-17.

Roberts, K., Varki, S. and Brodie, R. (2003), "Measuring the quality of relationships in consumer services: an empirical study", *European Journal of Marketing*, Vol. 37 Nos 1/2, pp. 169-98.

Rodriguez, C.M. and Wilson, D.T. (2002), "Relationship bonding and trust as a foundation for commitment in US-Mexican strategic alliance: structural equation modelling approach", *Journal of International Marketing*, Vol. 10 No. 4, pp. 53-76.

Rust, R.T. and Zahorik, A.J. (1993), "Customer satisfaction, customer retention, and market share", *Journal of Retailing*, Vol. 69 No. 2, pp. 193-215.

Shankarmahesh, M.N., Ford, J.B. and LaTour, M.S. (2003), "Cultural dimensions of switching behavior in importer-exporter relationships", *Academy of Marketing Science Review*, Vol. 3, pp. 1-17.

Sharland, A. (1997), "Sourcing strategy: the impact of costs on relationship outcomes", *International Journal of Physical Distribution & Logistics Management*, Vol. 27 No. 7, p. 395.

Sirdeshmukh, D., Singh, J. and Sabol, B. (2002), "Consumer trust, value, and loyalty in relational exchanges", *Journal of Marketing*, Vol. 66, January, pp. 15-37.

Smith, J.B. and Barclay, D.W. (1997), "The effects of organizational differences and trust on the effectiveness of selling partner relationships", *Journal of Marketing*, Vol. 61, pp. 3-21.

Storbacka, K., Strandvik, T. and Gronroos, C. (1994), "Managing customer relationships for profit", *Intl Journal of Service Industry Management*, Vol. 5 No. 5, pp. 21-38.

Sullivan, J. and Peterson, R.B. (1982), "Factors associated with trust in Japanese-American joint ventures", *Management International Review*, Vol. 22 No. 2, pp. 30-40.

Szybillo, G.J. and Jacoby, J. (1974), "Intrinsic versus extrinsic cues as determinants of perceived product quality", *Journal of Applied Psychology*, Vol. 59 No. 1, pp. 74-8.

Triandis, H.C. (1989), "The self and behavior in differing cultural contexts", *Psychological Review*, Vol. 96, July, pp. 506-20.

Ulaga, W. (2003), "Capturing value creation in business relationships: a customer perspective", *Industrial Marketing Management*, Vol. 32 No. 8, pp. 677-93.

Ulaga, W. and Chacour, S. (2001), "Measuring customer-perceived value in business markets: a prerequisite for marketing strategy development and implementation", *Industrial Marketing Management*, Vol. 30, pp. 525-40.

Ulaga, W. and Eggert, S. (2006), "Value-based differentiation in business relationships: gaining and sustaining key supplier status", *Journal of Marketing*, Vol. 70 No. 1, pp. 119-36.

Verhoef, P.C., Franses, P. and Hoekstra, J.C. (2001), "The impact of satisfaction and payment equity on cross-buying: a dynamic model for multi service provider", *Journal of Retailing*, Vol. 77 No. 3, pp. 359-78.

Wang, Y., Lo, H.P., Chi, R. and Yang, Y. (2004), "An integrated framework for customer value and customer-relationship-management performance: a customer-based perspective from China", *Managing Service Quality*, Vol. 14 Nos 2/3, pp. 169-82.

Wathne, K.H., Biong, H. and Heide, J.B. (2001), "Choice of supplier in embedded markets: relationship and marketing program effects", *Journal of Marketing*, Vol. 65, April, pp. 54-66.

Williams, J.D., Han, S.L. and Qualls, W.J. (1998), "A conceptual model and study of cross-cultural business relationships", *Journal of Business Research*, Vol. 42, pp. 135-43.

Wilson, D.T. (1995), "An integrated model of buyer-seller relationships", *Journal of the Academy of Marketing Science*, Vol. 23 No. 4, pp. 335-45.

Wilson, D.T. and Jantrania, S. (1994), "Understanding the value of a relationship", *Asia-Australia Marketing Journal*, Vol. 2 No. 1, pp. 55-66.

Woodruff, R.B. (1997), "Customer value: the next source for competitive advantage", *Journal of the Academy of Marketing Science*, Vol. 25 No. 2, pp. 139-53.

Zeithaml, V.A. (1988), "Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence", *Journal of Marketing*, Vol. 529, July, pp. 2-22.

Zeithaml, V.A. (2000), "Service quality, profitability, and the economic worth of customers: what we know and what we need to learn", *Journal of the Academy of Marketing*, Vol. 28 No. 1, pp. 67-85.

Further reading

Anderson, E. and Weitz, B. (1989), "Determinants of continuity in conventional industrial channel dyads", *Marketing Science*, Vol. 8 No. 4, pp. 310-23.

Berry, L.L. (1995), "Relationship marketing of services: growing interest, emerging perspectives", *Journal of the Academy of Marketing Science*, Vol. 23 No. 4, pp. 236-45.

De Wulf, K., Odekerken-Schroder, G. and Van Kenhove, P. (2003), "Investments in consumer relationships: a critical reassessment and model extension, a working paper extension to De Wulf, K., Odekerken-Schroder, G. and Iacobucci, D. (2001), 'Investments in consumer relationships: a cross-country and cross-industry exploration'", *Journal of Marketing*, Vol. 65 No. 4, pp. 33-50.

Doney, P.M. and Cannon, J.P. (1997), "An examination of the nature of trust in buyer-seller relationships", *Journal of Marketing*, Vol. 61, April, pp. 35-51.

Grönroos, C. (1998), "Marketing services: the case of a missing product", *The Journal of Business & Industrial Marketing*, Vol. 13 Nos 4/5, p. 322.

Jöreskog, K.G. and Sörbom, D. (1996), *LISREL 8: User's Reference Guide*, SPSS Inc., Chicago, IL.

Kaplan, L.B., Szybillo, G. and Jacoby, J. (1974), "Components of perceived risk in product purchase: a cross validation", *Journal of Applied Psychology*, Vol. 59 No. 3, pp. 287-91.

Kumar, N., Scheer, L.K. and Steenkamp, J-B.E.M. (1998), "Interdependence, punitive capability, and the reciprocation of punitive actions in channel relationships", *Journal of Marketing Research*, Vol. 35 No. 2, pp. 225-35.

Ulaga, W. (2001), "Customer value in business markets: an agenda for inquiry", *Industrial Marketing Management*, Vol. 30, pp. 19-30.

About the authors

James M. Barry, DBA, received his DBA, with a concentration in marketing, from Nova Southeastern University. He has served as an Assistant Professor at Nova Southeastern since 2004 where he teaches undergraduate and graduate marketing courses and supervises doctoral dissertations. Prior to his academic career, he served in a variety of executive marketing roles with GE, BFGoodrich, AT&T, and Rockwell-Collins. He also consults for nationwide aerospace companies and start-up ventures in the South Florida area. His publications are found in the *European Journal of Marketing*, several Academy of Marketing Science Conferences and American Marketing Association Educator Conferences on a number of relationship marketing topics. James M. Barry is the corresponding author and can be contacted at: jmbarry@huizenga.nova.edu

Paul Dion received his PhD in Management Studies, with a major in marketing, and a minor in statistical methods, from the University of Toronto in 1986. He has been an Associate Professor at Susquehanna University in Selinsgrove Pennsylvania since 1992. His research interests include statistics and marketing research methods, salesperson and purchasing performance, industrial market distribution and logistics, and Ecommerce in industrial distribution channels. He has published numerous articles in *Industrial Marketing Management*, the *International Journal of Purchasing Management*, the *Journal of the Academy of Marketing Science*, and other academic journals. He teaches both online and ground masters and doctoral courses for Nova Southeastern University in Ft Lauderdale Florida in Statistics and Research Methodology and has supervised many dissertations.

William Johnson, PhD, has been a full professor at Nova Southeastern University where he also published numerous journal articles and books on the subject of customer value, business processes orientation, service quality and customer satisfaction. He has also conducted sales training and consulted with a *Fortune* 150 industrial chemical company on their marketing strategies and marketing plans. He worked with a large tyre manufacturer in China that was seeking venture capital financing, helping them develop their business plan. He also has consulted with the soft drink, healthcare, and telecommunications industries, along with a variety of small businesses in dealing with their marketing problems. Further, during the past 20 years, his work has been published in nearly 30 journals and 35 conferences. He has also co-authored five books: *Total Quality in Marketing*; *Designing and Delivering Superior Customer Value: Concepts, Cases and Applications*; *Business Process Orientation: Gaining the E-Business Competitive Advantage*; *Supply Chain Networks and Business Process Orientation: Advanced Strategies and Best Practices*; and *Superior Customer Value in the New Economy: Concepts and Cases.*

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Executive summary and implications for managers

This summary has been provided to allow managers and executives a rapid appreciation of the content of the article. Those with a particular interest in the topic covered may then read the article in toto *to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present.*

We're told that attracting new customers can cost five times more than keeping the ones we have, and that a 2 percent increase in customer retention has the same effect on profits as cutting costs by 10 percent. Even if there might be disagreement about those percentage figures, the message is generally believed – it's far cheaper to maintain a relationship with existing customers than acquiring new ones.

Managers should therefore be encouraged to continually monitor their customer relationship management strategies along relationship quality dimensions in addition to observing the more tangible aspects of account health. Service managers need to understand the expectations surrounding a buyer's sense of satisfaction as well as their confidence that the service provider will deliver on their promises.

Problem is that it's far easier for organizations – whether management or front-line employees – to understand what's a good deal for the company and the customer than to understand that the "deal" itself is just a piece in a complex jigsaw of interrelated concepts which manifest themselves as a relationship.

Far better for front-line staff to be trained and rewarded for skills in customer relationship management behaviors and not just clinching the deal. This is especially challenging for companies in the USA where compensation systems and sales training programs tend to be bottom-line oriented and, therefore, inherently opportunistic. Witness the many organizations structured around elements of the marketing mix (price, promotion, distribution and product) rather than relationship building processes.

The wealth that comes from customer retention is often recognized in the form of higher shares of purchases, word-of-mouth influence and buyer investments in the relationship. The more business awarded a supplier, for example, the greater the leverage provided from the initial marketing investment.

While pressured to grow customer profits, suppliers are further challenged to distinguish themselves in a globally competitive environment. But many find that creating advantage along the traditional marketing mix dimensions is temporary at best. As a result, these suppliers are seeking more innovative ways to create value for their customers along relational dimensions. By doing so, suppliers often gain an advantage that is difficult to duplicate by others because of the intangible nature of relationship building.

Yet despite considerable evidence that validates the profit impact from strong relationships, little research has been devoted to understanding its root influences across aspects of a service encounter as well as the relationship itself.

Beyond the need to incorporate social and economic perspectives, there is the challenge posed by the complexity of understanding the highly subjective decision-making involved in the services business. The intangible nature of services requires buyers to subjectively evaluate the perceived value of the service transaction. Moreover, these buyers will typically base their commitment decisions on subjective perceptions of supplier trustworthiness, feelings of satisfaction and relational bonding with their suppliers.

The challenge is to blend both the economic and social perspectives surrounding relationship development while examining a wide array of attitudinal states that collectively contribute to a buyer's subjective perceptions. This requires a perspective that extends across the fields of services marketing, transaction cost economics and relationship marketing.

James M. Barry *et al.* use a global services context to explain the factors driving relationship strength (often used as a synonym for interpersonal loyalty) that blends both a calculative perspective (i.e. economically driven mainly out of necessity) and an affective perspective (e.g. socially driven mainly out of desire).

The study demonstrates the degree to which trust, satisfaction, commitment, switching costs, and perceived value all interact in forming relationship strength. By knowing a buyer's predisposition to rational-oriented or sentiment-based attachments, suppliers can better orient themselves to the buyer's nature, thereby increasing the likelihood for an enduring bond.

It further demonstrates that the key to maximizing customer retention is the creation of a service atmosphere that:

- builds value over time;
- promotes buyer confidence (trust); and
- challenges itself to exceed expectations (satisfaction).

The resulting buyer satisfaction and trust will then complement the allegiance that builds over time (i.e. relationship quality) and ultimately ensures the continuity of the relationship, while restricting the number of viable alternatives recognized by the buyer.

Too often, in focusing on "the deal" or "the deliverables" service managers overlook the opportunity to build quality relationships. That is not to say aspects of the offer take a back seat to the social aspects of the relationship. In fact, perceptions of offer value are needed to cultivate the quality of relationship perceived by the buyer. On the other hand, providing value in the form of a superior offer is not sufficient to get a buyer to award a greater share of business or to invest in the relationship. Instead, a quality relationship based on high levels of satisfaction, trust and strong sentiments of allegiance, is required to achieve business expansion and longevity.

(A précis of the article "A cross-cultural examination of relationship strength in B2B services". Supplied by Marketing Consultants for Emerald.)