Customer loyalty: A multi-attribute approach

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ABSTRACT

The proposed model is theoretically grounded in the multi-attribute attitude literature. It is proposed that the antecedents of customer loyalty are be partitioned into three categories. First, supply-side (firm-controllable) customer loyalty antecedents are those satisfaction drivers that comprise *total customer experience (TCE)*. Eight distinct TCE dimensions are identified through preliminary personal interviews. Second, the TCE variables influence customer loyalty through a series of mediating variables including satisfaction, quality, perceived value and trust. Customer loyalty is considered a dual-dimensional construct, comprised of cognitive and affective loyalty. The TCE and its antecedents work along two, independent paths---one calculative (cognitive) and one emotional (affective). Third, a demand-side antecedent variable, Loyalty Orientation (LO), is developed to account for the effect of individual differences on customer loyalty. The LO variable is comprised of price fairness, competitor attractiveness, loyalty proneness, and product involvement. Customer loyalty manifests itself in behavioral consequences, including repurchase behavior, spreading positive word of mouth communication, resistance to counter persuasion and reduced product category search. A measure of Perceived Behavioral Control is integrated into the model to account for purchase occasions where the decision is not entirely volitional (exit costs, monetary restrictions, etc.). Managers in virtually any market can use this robust model as a template to optimize loyalty.

Keywords: customer loyalty, customer experience, affective loyalty, cognitive loyalty, behavioral control, satisfaction, quality, trust, value

INTRODUCTION

The proposed model is theoretically grounded in the multi-attribute attitude literature. It is proposed that the antecedents of customer loyalty are be partitioned into three categories. First, supply-side (firm-controllable) customer loyalty antecedents are those satisfaction drivers that comprise the *total customer experience (TCE)*. Eight distinct TCE dimensions were identified through preliminary personal interviews. Second, the TCE variables influence customer loyalty through a series of mediating variables (Evaluation Antecedents) including satisfaction, quality, perceived value and trust. The conceptualize customer loyalty as a dual-dimensional construct, comprised of cognitive and affective loyalty. The TCE and Evaluation antecedents work along two, independent paths---one calculative (cognitive) and one emotional (affective)---leading to customer loyalty. Third, a demand-side, antecedent variable, Loyalty Orientation (LO) is introduced to account for the effect of individual differences on customer loyalty. The LO variable is comprised of price fairness and competitor attractiveness (both of which have an inverse effect on cognitive loyalty); and loyalty proneness and product involvement (both of which have a positive effect on affective loyalty). Customer loyalty manifests itself in behavioral consequences including repurchase behavior, spreading positive word of mouth communication, resistance to counter persuasion and reduced product category search (only repurchase behavior is examined in the present study). A measure of Perceived Behavioral Control is integrated into the model to account for purchase occasions where the decision is not entirely volitional (exit costs, monetary restrictions, etc.). Managers in virtually any market can use this robust model as a template to optimize loyalty. The context of the study is business-to-business services.

STATEMENT OF RESEARCH PROBLEM, CONTRIBUTION, AND RESEARCH QUESTIONS

The concept of customer loyalty has a vast, fractious research legacy. A recent search of the ABI/Inform business database for the term "customer loyalty" returned over 10,000 results. There should be more agreement and advancement concerning the construct, given it has been over 80 years since the notions of "brand preference" and "brand insistence" were first introduced (Copeland, 1923). The core of the problem is that researchers are missing the forest for the trees. Although the need for a broad and holistic customer loyalty model has been recognized (Dick and Basu 1994), no such model has been empirically tested. Moreover, loyalty research suffers from poor construct definition and incomplete nomological network specification. The present research proposal addresses these gaps in the loyalty research.

This research makes a unique contribution to the customer loyalty literature stream in several ways. First, a topology of company-controllable factors that are utilized by firms to fashion the Total Customer Experience (TCE) is developed. This will provide managers with diagnostic capabilities for understanding which dimensions of the TCE are the most important drivers of customer loyalty in their specific context. Second, two independent pathways to customer loyalty were developed---one calculative (cognitive) and one emotional (affective). Managers who are cognizant of the underlying mechanism of loyalty formation in their customer base can make better strategic decisions. For instance, if customers of a firm are purely cognitively loyal, loyalty strategies that rely on community-building tactics are unlikely to be effective. Third, the present approach takes a holistic perspective of customer loyalty. Following the pleas of numerous authors, this study integrates competitive, individual, firm-controllable,

market-based and important moderator variables into the proposed model. Furthermore, it is calibrated with actual financial data concerning buyer behavior, enhancing the realism of this proposal. The output of these contributions is a roadmap to customer loyalty. Not only will the roadmap tell the manager how to get to loyalty (prediction) but also how to *best* get there (explained variance).

The dominant research question is "what factors are most important in explaining and predicting customer loyalty given individual, structural and competitive differences?" Underlying this main question, other research questions include: "How does partitioning satisfaction into distinct constructs of affective and cognitive satisfaction improve the understanding of customer loyalty? "How do the new satisfaction constructs affect cognitive and affective loyalty?" "How does the integration of the demand-side variables (perceived behavioral control, price evaluations, competitive attractiveness, etc.) improve the model?"

HYPOTHESIS DEVELOPMENT AND DISCUSSION

Supply Side Variables-Total Customer Experience

Preliminary personal interviews were conducted with business professionals, selected from within the sampling frame, to enhance face validity. These interviews indicated that both satisfaction and loyalty are driven by a relatively well-defined set of characteristics. These characteristics are parsimoniously represented by eight factors: convenience, choice, character, care, cultivation, customization, contact interactivity and communication as depicted in Figure 1 (Appendix). These are conceptualized as the Total Customer Experience (TCE). As noted by Berry, "customers always have an experience—good, bad or indifferent—whenever they purchase a product or service from a company (Berry, 2002)."

This study developed working definitions for the preliminary TCE dimensions. Customization represents the extent to which a company can recognize a customer and tailor the choice of products, services and experience accordingly. Contact interactivity refers to a dynamic, two-way communication conduit between a customer and a company. Community is the extent to which customers are provided with the opportunity to and ability to share opinions among themselves. Care is the attention that a business pays to all the pre- and post-purchase customer interface activities designed to enhance customer relationships. Choice represents the breadth of products and services offered by a company to meet customer needs. Convenience is conveyed through being easy to work with and making each transaction simple. Character represents the reputation, image or "personality" that a firm portrays to its customers.

Researchers have identified similar typologies in the service quality literature (A. Parasuraman, Zeithaml, & Berry, 1988) and electronic commerce (Srinivasan, Anderson, & Ponnavolu, 2002). Relying on prior research that demonstrates a direct relationship between service quality and satisfaction (A. Parasuraman & Grewal, 2000), the eight dimensions of the TCE capture the essence of what determines customer satisfaction, and ultimately, customer loyalty. Furthermore, it is hypothesized that the TCE dimensions can be segmented into affective and cognitive drivers based on the preliminary interviews. Care, community and character are clearly attributes that generate affective responses from customers. The affective variables represent the relationship the customer has with the firm. The remaining dimensions are classified as cognitive-based (contact interactivity, choice, customization, cultivation, convenience) as they are more calculative or belief-oriented.

H1a: There is a direct relationship between Care and Affective Satisfaction
H1b: There is a direct relationship between Community and Affective Satisfaction
H1c: There is a direct relationship between Character and Affective Satisfaction
H1d: There is a direct relationship between Contact Interactivity and Cognitive Satisfaction
H1e: There is a direct relationship between Choice and Cognitive Satisfaction
H1f: There is a direct relationship between Customization and Cognitive Satisfaction
H1g: There is a direct relationship between Cultivation and Cognitive Satisfaction
H1h: There is a direct relationship between Convenience and Cognitive Satisfaction

Perceived Quality

Perceived quality is defined as a customer's appraisal of a product's overall excellence or superiority (Zeithaml, 1988). As such, perceived quality is an appraisal variable and posited it to work as an antecedent in this behavioral intention model (Gotlieb, Grewal, & Brown, 1994). Furthermore, as an appraisal, one's determination of perceived quality is primarily cognitive process. Quality is determined by evaluating the performance of salient product or service attributes to either expectations or an objective standard (six sigma, for instance). Therefore, quality impacts cognitive satisfaction directly.

Perceived quality and satisfaction are highly inter-correlated (Bitner & Hubbert, 1994). Support for quality acting both as an antecedent as well as a consequence of satisfaction exists (Cronin, Brady, & Hult, 2000; De Ruyter & Bloemer, 1999). However, there is more support for the notion that perceived value leads to satisfaction (Dabholkar et al. 2000; Oliver 1997).

H2: There is a direct relationship between Perceived Quality and Cognitive Satisfaction. Satisfaction

Satisfaction is one of the more heavily researched constructs in marketing literature (for reviews see Oliver 1997; Yi 1990). This study relies on cumulative rather than transaction-specific satisfaction (Michael D. Johnson, Anderson, & Fornell, 1995); (Michael D. Johnson & Fornell, 1991).

Cognitive Factors of Satisfaction

There are at least four cognitive-based determinants of satisfaction. First, expectancy-disconfirmation theory indicates that customers form expectations as benchmarks from which performance is rated (Oliver, 1980). Disconfirmation has been found to be an important determinant of satisfaction. Second, perceived performance also influences satisfaction evaluation (Tse & Wilton, 1988). Support for both performance evaluations and expectancy disconfirmation in a customer satisfaction context has been established (Oliver, 1995; Oliver & Burke, 1999). Third, equity influences satisfaction (Oliver & DeSarbo, 1988). In a study of payment equity, normative comparisons of payment were found to directly affect satisfaction (Ruth N. Bolton & Lemon, 1999). Finally, fairness has been shown to be potentially the most important cognitive factor of satisfaction (Oliver & Swan, 1989). Fairness has been operationalized as perceived gains and losses in a service relationship (Ruth N. Bolton, 1998). In summary, there is substantial evidence that distinct cognitive factors influence satisfaction.

Affective Factors of Satisfaction

Positive (negative) affect has been demonstrated to correlate positively (negatively) to satisfaction (Robert A. Westbrook, 1987). Affective patterns have been identified that lead to satisfaction (happy and pleasantly surprised) and dissatisfaction (angry/upset and unpleasant/surprise) (Robert A. Westbrook & Oliver, 1991). In a study of automobile ownership satisfaction, it was demonstrated that satisfaction was primarily driven by affective response (Oliver, 1992). These results indicate that affect also has a distinct influence on satisfaction.

Dual-Process Model of Satisfaction

Researchers have also investigated the independent contribution of affective and cognitive dimensions on satisfaction simultaneously. For instance, utilitarian (primarily cognitive) and hedonic (primarily affective) product judgments jointly determined satisfaction in one study (Mano & Oliver, 1993). The authors concluded that both affective and cognitive judgments influence satisfaction. (Geise & Cote, 1999) conclude that satisfaction can either be an affective or cognitive response depending on the context of the consumption experience. Finally, other studies have posited that affect works as a mediator between disconfirmation (a factor of cognitive satisfaction) and satisfaction (Oliver, Rust, & Varki, 1997).
Oliver (1997) acknowledges the presence of both cognitive as well as affective influences on satisfaction in his dual-process model of satisfaction as shown in Figure 1 (Appendix). This dual-process of satisfaction has also been identified in the job satisfaction (Agho, Price, & Mueller, 1992; Clarke, 2001; Organ & Near, 1985) and quality-of-life (Horley & Little, 1985) literature. The model specifies that affect and cognition can either work together or alone. Oliver speculates that perhaps cognition and affect work in *opposition* (or independent) of each other. For instance, is it possible to find cognitive satisfaction in conjunction with negative satisfaction-related affect? In this case, it would not be a requirement that both factors be present. A synergistic effect would occur if both affect and cognitive satisfaction were present simultaneously (and similarly valenced). This synergistic effect has been demonstrated in the quality-of-life literature. For instance, as people age, their satisfaction (cognitive factors such as earnings, assets, etc.) may increase while their happiness (affect) decreases, concurrently as depicted in Table 1 (Appendix). This indicates that one may be affectively satisfied (happy) while at the same time be devoid of cognitive satisfaction (dissatisfied).
The findings concerning the relationship between satisfaction and loyalty have been equivocal (Oliva, Oliver et al. 1992; Selnes 1993; Dube and Maute 1998; Olsen and Johnson 2003). It is recognized that satisfaction alone is "not enough" to predict loyalty but it does play an important role. Substantial evidence exists that a linear relationship between the two variables exists. In a study of continuously provided services, customers who have longer relationships with the provider have higher prior cumulative satisfaction ratings (Bolton 1998). In an automobile context, satisfaction with the salesperson was found to improve the prediction of behavioral intentions (Oliver & Swan, 1989). In another automotive study, satisfaction ratings were found to be linked to actual repurchase behavior (Mittal & Kamakura, 2001). Satisfaction was found to have an impact on e-loyalty in an electronic commerce setting (Anderson & Srinivasan, 2003). Other studies have addressed the satisfaction-loyalty linkage in a more general sense (Hallowell, 1996; Oliver, 1999). A number of other studies support the satisfaction-loyalty relationship---it is omitted simply for the sake of brevity in this proposal.

H3a: Cognitive Satisfaction is positively related to Cognitive Loyalty
H3b: Affective Satisfaction is positively related to Affective Loyalty

Perceived Value

Perceived value is defined as an "overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml, 1988). The Total Customer Experience (TCE) variables represent the "what is received" by the customer. (A. Parasuraman & Grewal, 2000) refer to this customer benefit as the "get" component of their model of perceived value. It is the bundle of benefits the buyer derives from a seller's offering. Researchers have demonstrated that there is a positive relationship between perceived value and intention to repurchase (Parasuraman and Grewal 2000). However, it is unlikely that even satisfied customers will continue to repurchase if they can get a better value elsewhere.
H4a: The relationship between Cognitive Satisfaction and Cognitive Loyalty is moderated by Perceived Value.
H4b: The relationship between Affective Satisfaction and Affective Loyalty is moderated by Perceived Value
H4c: There is a positive relationship between Total Customer Experience and Perceived Value.
Trust
Morgan & Hunt, (1994) define trust as the "confidence in the exchange partner's reliability and integrity." According to (Singh & Sirdeshmukh, 2000) "trust is a crucial variable that determines outcomes at different points in the process and serves as the glue that holds the relationship together." If customers do not trust the firm from whom they are buying, it is unlikely that they will be loyal to a seller even if they are satisfied. The relationship between the customer and the firm will start to unravel in the absence of the "glue." Therefore, it is asserted that satisfaction is likely to lead to higher levels of loyalty only in the presence of high levels of trust.
H5a: The relationship between Cognitive Satisfaction and Cognitive Loyalty is moderated by Trust .
H5b: The relationship between Affective Satisfaction and Affective Loyalty is moderated by Trust.

Loyalty

The construct of loyalty has been researched in a variety of contexts including brand loyalty (Copeland 1923; (Brown, 1952; Cunningham, 1956; Jacoby & Chestnut, 1978; Kahn, Kalwani, & Morrison, 1986; Massy, Montgomery, & Morrison, 1970; Sheth, 1968), source loyalty (Wind, 1970), service loyalty (Butcher, Sparks, & O'Callaghan, 2001; Caruana, 2002; Gremler & Brown, 1996), store loyalty (Beatty, Mayer, Coleman, Reynolds, & Lee, 1996; Czepiel, 1990; Macintosh, Anglin, Szymanski, & Gentry, 1992; Reynolds & Arnold, 2000) and e-loyalty (Srinivasan et al., 2002). Customer loyalty is the focus of the present study. (Dick & Basu, 1994) proposed a comprehensive and often-cited conceptual model of customer loyalty. A dearth of other customer loyalty research ensued which builds on portions of this comprehensive model. Researchers have examined relationships between customer loyalty and customer satisfaction (Hallowell, 1996; Oliver, 1999), financial results (Fredericks, Hurd, & Salter, 2001), service quality (Kandampully, 1998), customer value (De Ruyter & Bloemer, 1999),

commitment (Pritchard, Havitz, & Howard, 1999), the salesperson (Liu & Leach, 2001), trust (Singh & Sirdeshmukh, 2000), loyalty programs (Ruth N. Bolton, Kannan, & Bramlett, 2000); as well as across different industrial settings such as the automotive industry (Devaraj, Matta, & Conlon, 2001) and the telecommunications industry (Khatibi, Ismail, & Thyagarajan, 2002). After all of this attention, there still appears to be no consensus concerning the understanding of customer loyalty (Reinartz & Kumar, 2002). Several explanations of this perplexing (and perhaps exasperating) situation can be argued. First, there is an absence of a universally accepted definition of customer loyalty. This leads to poor operationalizations of the construct. An example of this situation (albeit a bit trivial--but important nonetheless) is transposing brand loyalty (and all of the other sources of loyalty listed in the preceding paragraph) into "loyalty to the brand." Transposing "customer loyalty" in a similar fashion translates to "loyalty to the customer." Customer loyalty is the *inverse* of this transposition. Second, researchers have used various sources of loyalty interchangeably and capriciously. For instance, a recent Journal of Advertising Research article was titled, "Customer/Brand Loyalty in an Interactive Marketplace" (Schultz & Bailey, 2000). Does this mean the authors are implying the two sources of loyalty are the same or interchangeable? Certainly, they are not. Third, behavioral measures of loyalty have reigned for years and continue to play an important role in operationalizing both loyalty as well as customer loyalty (Jacoby & Chestnut, 1978; McMullan & Gilmore, 2003). Although this topic is not fully considered in this proposal, a vast majority of the behavioral-based measures of customer loyalty rely upon repurchase behavior as their foundation. It is asserted that repurchase behavior measures repurchase behavior---*only*. In order to properly define customer loyalty conceptually, some level of abstraction is necessary. Conceptual definitions form the foundation of formal theory (Jacoby & Chestnut, 1978). Without a conceptual definition, customer loyalty can, at most, only be predicted. Researchers would have no hope of ever understanding how to improve, modify or diagnose customer loyalty. Finally, valid and reliable scales that measure customer loyalty are only now being proposed and are quite inadequate (McMullan & Gilmore, 2003).

Customer loyalty is defined as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver 1999). This definition captures not only the spirit of global customer loyalty but also emphasizes the attitudinal ("…deeply held commitment…") as well as the behavioral ("…causing repetitive same-brand or same brand-set purchasing…") components of customer loyalty. The attitudinal component of customer loyalty is further developed by partitioning it into cognitive and affective dimensions. It is expected that cognitive and affective loyalties to have independent influences on customer loyalty. For instance, sports fans might be very affectively loyalty to their local team (affectively-driven loyalty), in light of not being very cognitively loyal (high ticket prices, uncomfortable seats, in climate weather). The partitioning of loyalty proposed is borrowed from commitment literature. Commitment is closely related to loyalty but differs in its level of reciprocity (Pritchard et al., 1999). Commitment is usually applied to buyer-seller relationships found in industrial supply chains or marketing channels. Both sides of the dyad usually make relationship specific investments. This is not usually the case in most marketing relationships. Recent findings indicate that commitment operates along two, independent paths---calculative (cognitive) and emotional (affective) (Berghall, 2003). Calculative commitment is based on transactional, conscious evaluation. In contrast, emotional commitment is subconscious and based on feeling-like impressions. It is

posited that customer loyalty can be bifurcated in this same manner. Different loyalty strategies will apply when attempting to enhance loyalty in an individual customer, depending upon which pathway was during loyalty formation.

A recent thread of customer loyalty research has also intimated at this partitioning. Oliver (1997; 1999) began work in this area proposing that loyalty progresses through four phases: cognitive, affective, conative and action loyalty. At each stage of loyalty, the customer's demand for a product or service becomes more zealous. Although this research differs from Oliver's discrete, compartmentalizing of the "phases" of customer loyalty, his work is important in that it recognizes that customer loyalty is not monolithic. Researchers have begun to test Oliver's framework empirically. The framework has been tested empirically in an international setting (Fraering, 2002) and also a retail setting (Sivadas & Baker-Prewitt, 2000).

The specific constructs of interested in the present study are affective and cognitive loyalty. Affective loyalty has been studied in relation to website loyalty (Supphellen & Nysveen, 2001) and loyalty to service providers (Ganesh, Arnold, & Reynolds, 2000). In organizational literature, affective organizational commitment has been found to significantly impact employee retention (Eby, Freeman, Rush, & Lance, 1999). Moreover, authors have called for an increased focus on affect-based attitudes in customer retention models (Desai & Mahajan, 1998). Cognitive loyalty has also been examined, although on a more limited basis. Cognitive loyalty has been studied in the banking industry (Peterson & Nysveen, 2001). Support has also been found for the multi-dimension nature of the loyalty construct including cognitive loyalty (in addition to behavioral and attitudinal) (Gremler & Brown, 1996).

H6a: Cognitive Loyalty is directly and positively related to Customer Loyalty

H6b: Affective Loyalty is directly and positively related to Customer Loyalty

H6c: Customer Loyalty is positively and directly related to Repurchase Intention

H6d: The relationship between Customer Loyalty and Repurchase Behavior is mediated by Repurchase Intention

Loyalty Orientation

Four demand-side loyalty drivers are derived from extent literature: competitive alternative attractiveness, price fairness, loyalty proneness and product involvement. Together, these represent dimensions of a Loyalty Orientation (LO) variable. Below hypotheses are developed concerning various relationships and interactions between the four dimensions of the LO variable and other exogenous variables in our model.

Alternative attractiveness plays a role in a buyer's propensity to be loyal. It has been suggested that loyalty measurements should be made in comparison to direct competitors (Dick and Basu 1994). Loyalty models that ignore competitive pressures assume that the firm operates in a vacuum and this is not realistic. Alternative attractiveness is conceptualized as the customer's estimate of the likely satisfaction available in an alternative relationship (Ping, 1993; Rusbult, 1980). It has been suggested that a lack of attractive alternatives or knowledge of their existence favors loyalty (Ping, 1993). The evaluation of the attractiveness of competitive alternatives (i. e. direct substitutes) is an evaluative process of comparing common attributes and, therefore, impacts cognitive loyalty directly.

H7: There is an inverse relationship between the attractiveness of competitive alternatives and cognitive loyalty.

Product Involvement

A customer's involvement in a product class is directly related to his/her commitment to a brand within a product class (Traylor, 1983). A product class that is more closely related to one's ego or sense of identity will result in a stronger psychological attachment to a favored brand. In a low involvement case, the customer's consideration set will be much larger, resulting in lower loyalty or commitment to a particular brand. As a construct that is closely related to one's self-identity, involvement operates at a sub-conscious level. Therefore, it impacts affective loyalty directly and positively.

P8: Product involvement is positively related to affective loyalty.

Perceived price fairness has been identified as an important factor that influences consumers' reactions to prices (L. E. Bolton, Warlop, & Alba, 2003; Campbell, 1999; Etzioni, 1988). Research indicates that consumers are often concerned with the fairness of price and are often unwilling to pay a price that is deemed unfair (Kahneman, Knetsch, & Thaler, 1986). If customers consider a firm's price to be unfair, they will be less resistant to competitive counterarguments or actively seek a lower price from a competitor. Furthermore, since price is a tangible product/service attribute, it will affect cognitive loyalty directly. Perceived price fairness is inversely related to cognitive loyalty.

H9: Perceived Price Fairness is inversely related to cognitive loyalty

Loyalty Proneness

Researchers have called for the inclusion of individual level variables in loyalty models (Dick and Basu 1994). Loyalty proneness indicates an individual's propensity to maintain familiar brands or service providers (Patterson, 2000). Its foundation is "optimum stimulation level" (OSL) which characterizes an individual's general response to environmental stimuli (Raju, 1980). When the level of stimulation experienced from one's environment is suboptimal, an organism will attempt to increase the stimulation level by seeking new experiences. In a loyalty context, this is referred to as variety seeking. Since this operates at a subconscious level, loyalty proneness will impact affective loyalty directly.

H10: Loyalty proneness is directly and positively related to affective loyalty.

Perceived Behavioral Control

Research indicates that seemingly loyal customers, who are "locked in" for one reason or another, are not truly loyal. They may not have any viable alternative, the buyer might not be the true decision maker, there may be high switching costs or they may not have adequate resources to buy from a competitor that is a more desirable alternative. This has been termed spurious loyalty (Dick and Basu 1994). In the Theory of Planned Behavior (TPB), Perceived Behavioral Control (PBC) accounts for actual behavioral control (Ajzen, 1991). As noted by the researcher, "the resources and opportunities available to a person must to some extent dictate the likelihood of behavioral achievement" (p. 183). The variable has been demonstrated to have an indirect relationship with actual behavior (repurchase behavior, in this study) and a direct relationship with behavioral intentions (repurchase intention, in this study). By including PBC in the loyalty model, actual behavior will be able to be predicted more accurately. The PBC variable informs the model concerning how "able" the customer is to actually carry out their intention.

H11a: Perceived Behavioral Control (PBC) has a direct relationship with repurchase intention.
H11b: Perceived Behavioral Control (PBC) has an indirect relationship with repurchase behavior

Control Variables

Several variables are controlled including industry (by SIC), company size (corporate sales), geographic location (US state or country) and customer/relationship type. Another control is for the time between the measurement of repurchase intention and actual behavior. The Theory of Planned Behavior literature clearly informs the relationship between intention and behavior becomes less stable as the time from measurement grows.
H12: Time moderates (interacts with) the relationship between Repurchase Intention and Repurchase Behavior

SAMPLE, MEASUREMENT, AND STATISTICAL ANALYSIS

The sampling frame will comprise individuals involved with purchasing decisions concerning mobile computer repair services, applications and hardware in a B2B context. The sample size is approximately 2,500 and is dispersed throughout the continental US. Personal interviews will be conducted to establish the face validity of the model prior to instrument development. Both printed mail and web-based surveys will be made available to the remainder of the sample not involved with the personal interviews. The unit of analysis is the individual customer.

The model variables will be operationalized through the use of scales primarily drawn and/or adapted from the extent literature. The Total Customer Experience variables will be measured (separately) with a total of thirty-nine scale items that must be adapted to the present context (Srinivasan et al., 2002). The attitudinal dimension of customer loyalty will be measured with a nine-item scale and the behavioral dimension will be measured with a three-item scale (Too, Souchon, & Thirkell, 2000). A five-item scale is used to measure quality (Lim, Darley, & Summers, 1994). For repurchase intention, a single-item scale is used (Mittal, Ross, & Baldasare, 1998). Cognitive and affective loyalty will be measured with eleven-item scales (Fraering, 2002). Trust will be operationalized with a four-item scale (Morgan & Hunt, 1994). Involvement will be measured with a four-item scale (Beatty & Talpade, 1994). Alternative attractiveness will be measured with a four-item scale (Ping, 1993) and the focal point will be the most often cited competitor (from the personal interviews). Perceived behavioral control will be measured with a four-item scale (Bansal & Taylor, 2002). Loyalty proneness will be operationalized by a four-item scale (Lichtenstein, Netemeyer, & Burton, 1990). Finally, repurchase behavior will be measured using internal purchasing records of the selling firm. The surveys will be coded in order to match the survey respondent to his company's purchasing records. Three months following the administration of the survey, respondents will be classified as either loyal or not based on whether they continue to purchase from the firm.

In general, the overall model will be tested with multiple regression. The Table 2 (Appendix) specifies the equations that will be tested to evaluate each hypothesis. Path analysis (hierarchical regression) will be used to evaluate the overall causal model (see the two path equations tested below). This statistical test was selected over structural equation modeling (SEM) due to the large number of variables in the model. Regression modeling is an appropriate

tool since all variables are measured at an interval level, with the exception of repurchase behavior (which is categorical). Repurchase intention will be the dependent variable in this causal model. Variables will be standardized prior to statistical testing, resulting in standardized path coefficients. This allows one to draw conclusions concerning the "importance" of each variable's contribution to the overall model. Each variable will be entered into the model in its hypothesized order, evaluating the significant of additional explained variance (change in R^2). The overall path equations are below:

Independent Cognitive and Affective Path Analysis Equations:

$$RI = \alpha + \beta_{CL}X_{CL} + \beta_{LOYc}X_{LOYc} + \beta_{SATc}X_{SATc}\beta_{Tr}X_{Tr} + \beta_{SATc}X_{SATc}\beta_{PV}X_{PV} + \beta_{SATc}X_{SATc} + + \beta_{PQ}X_{PQ} + \beta_{TCEc}X_{TCE\,c}** + \varepsilon$$

$$RI = \alpha + \beta_{CL}X_{CL} + \beta_{LOYa}X_{LOYa} + \beta_{SATa}X_{SATa}\beta_{Tr}X_{Tr} + \beta_{SATa}X_{SATa}\beta_{PV}X_{PV} + \beta_{SATa}X_{SATa} + + \beta_{PQ}X_{PQ} + \beta_{TCEa}X_{TCE\,a}** + \varepsilon$$

*Composite of the eight TCE dimensions

**Composite of the five cognition-based ($_{TCEc}$) and three affect-based ($_{TCEa}$)TCE variables

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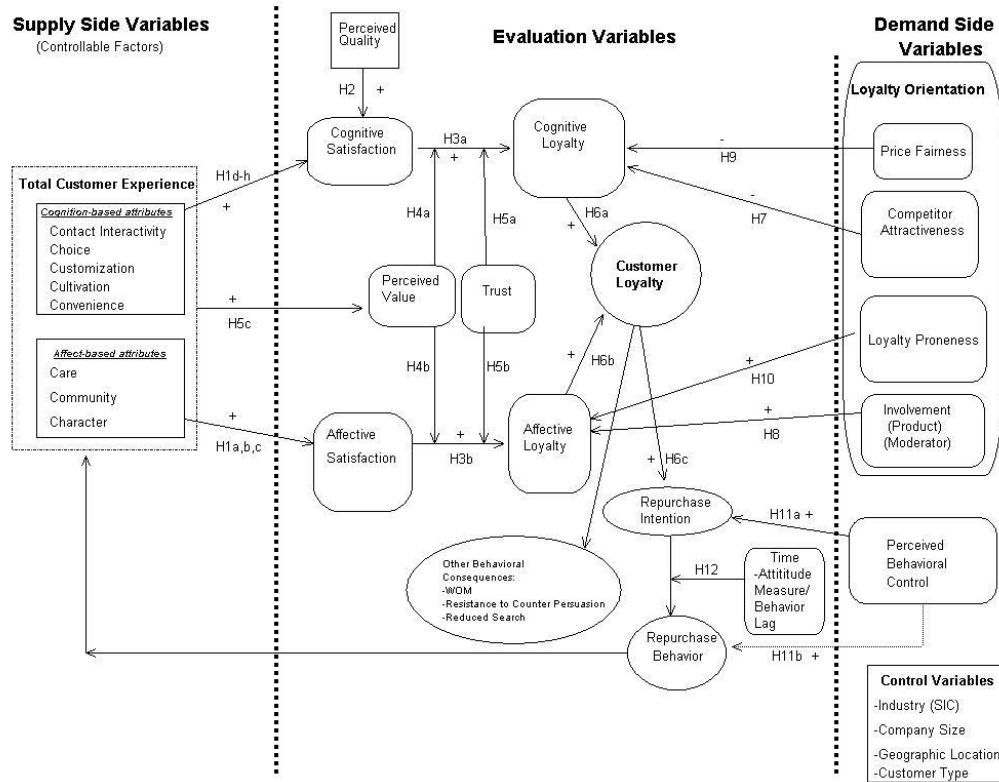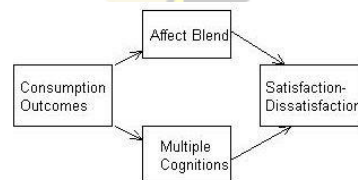
APPENDIX

Figure 1
A Comprehensive Model of Customer Loyalty

Dual-Process (Cognitive-Affective) Model of Satisfaction
Adapted from Oliver 1997

Figure 2

Satisfaction	Happiness	"Label"
Satisfied	Happy	Achievers
Satisfied	Unhappy	Resigned
Dissatisfied	Happy	Aspirers
Dissatisfied	Unhappy	Frustrated

Table 1: Satisfaction and Happiness (Michalos 1976)

H1a: $SAT_a = \alpha + \beta_1 X_1 + \varepsilon$	1= Care; SATa = Affective Satisfaction
H1b: $SAT_a = \alpha + \beta_2 X_2 + \varepsilon$	2 = Community
H1c: $SAT_a = \alpha + \beta_3 X_3 + \varepsilon$	3 = Character
H1d: $SAT_c = \alpha + \beta_4 X_4 + \varepsilon$	4 = Contact Interactivity
H1e: $SAT_c = \alpha + \beta_5 X_5 + \varepsilon$	5 = Choice
H1f: $SAT_c = \alpha + \beta_6 X_6 + \varepsilon$	6 = Customization
H1g: $SAT_c = \alpha + \beta_7 X_7 + \varepsilon$	7 = Cultivation
H1h: $SAT_c = \alpha + \beta_8 X_8 + \varepsilon$	8 = Convenience;PQ=Perceived Quality
H2: $SAT_c = \alpha + \beta_{PQ} X_{PQ} + \varepsilon$	SATc = Cognitive Satisfaction
H3a: $LOY_c = \alpha + \beta_{SATc} X_{SATc} + \varepsilon$	LOYc = Cognitive Loyalty
H3b: $LOY_a = \alpha + \beta_{SATa} X_{SATa} + \varepsilon$	LOYa = Affective Loyalty
H4a: $LOY_c = \alpha + \beta_{SATc} X_{SATc} + \beta_{PV} X_{PV} + \beta_{SATc} X_{SATc} \beta_{PV} X_{PV} + \varepsilon$	PV = Perceived Value
H4b: $LOY_a = \alpha + \beta_{SATa} X_{SATa} + \beta_{PV} X_{PV} + \beta_{SATa} X_{SATa} \beta_{PV} X_{PV} + \varepsilon$	
H5a: $LOY_c = \alpha + \beta_{SATc} X_{SATc} + \beta_{Tr} X_{Tr} + \beta_{SATc} X_{SATc} \beta_{Tr} X_{Tr} + \varepsilon$	Tr = Trust
H5b: $LOY_a = \alpha + \beta_{SATa} X_{SATa} + \beta_{Tr} X_{Tr} + \beta_{SATa} X_{SATa} \beta_{Tr} X_{Tr} + \varepsilon$	
H5c*: $PV = \alpha + \beta_{TCE} X_{TCE} + \varepsilon$	TCE = Total Customer Experience
H6a: $CL = \alpha + \beta_{LOYc} X_{LOYc} + \varepsilon$	CL = Customer Loyalty
H6b: $CL = \alpha + \beta_{LOYa} X_{LOYa} + \varepsilon$	
H6c: $RI = \alpha + \beta_{CL} X_{CL} + \varepsilon$	
H7: $LOY_c = \alpha - \beta_{CA} X_{CA} + \varepsilon$	CA = Competitor Attractiveness
H8: $LOY_a = \alpha + \beta_{INV} X_{INV} + \varepsilon$	INV = Involvement
H9: $LOY_c = \alpha - \beta_{PF} X_{PF} + \varepsilon$	PF = Price Fairness
H10: $LOY_c = \alpha + \beta_{LP} X_{LP} + \varepsilon$	LP = Loyalty Proneness
H11a: $RI = \alpha + \beta_{PBC} X_{PBC} + \varepsilon$	RI = Repurchase Intention
H11b: $RB = \alpha + \beta_{PBC} X_{PBC} + \varepsilon$	PBC = Perceived Behavioral Control
H12: $RB = \alpha + \beta_{RI} X_{RI} + \beta_T X_T + \beta_{RI} X_{RI} \beta_T X_T + \varepsilon$	RB = Repurchase Behavior

Table 2
Regression Equations