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Community, fortitude, satisfaction, and loyalty: Tests of Oliver's proposed frameworks

J. Martin Fraering
University of Texas-Pan American

COMMUNITY, FORTITUDE, SATISFACTION, AND LOYALTY: TESTS OF OLIVER'S PROPOSED FRAMEWORKS

A Dissertation

by

J. MARTIN FRAERING

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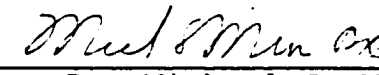
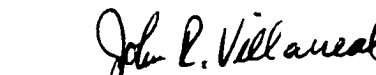


Dr. Michael S. Minor
Chair of Committee

Dr. Vern Vincent
Committee Member

Dr. John Sargent
Committee Member



Dr. John Villarreal
Committee Member

August 2002

ABSTRACT

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This paper discusses tests of two competing loyalty frameworks proposed by Richard L. Oliver. The cognition to action (CTA) loyalty model specifies four phases: cognitive loyalty, affective loyalty, conative loyalty, and action loyalty, a framework originally discussed by Oliver. The fortitude-community (F-C) loyalty model argues that loyalty is a function of the degree of personal fortitude and the extent to which customers feel that they are members of a community of consumers. In both of these models loyalty is posited to arise from customer satisfaction. Research hypotheses are formulated that assert positive relationships between satisfaction and various loyalty constructs. The literature is consulted to formulate a CTA loyalty model and a F-C loyalty model.

Two pilot studies were conducted to make a preliminary determination of the reliability and validity of the CTA and F-C loyalty models. Surveys of college of business administration undergraduates and credit union members provided preliminary indications that both loyalty models successful explain the constructs.

Two formal empirical tests were also conducted to determine the reliability and validity of the CTA and F-C loyalty models. A survey of mall patrons found that the expected positive relationships between satisfaction and cognitive loyalty, cognitive loyalty and affective loyalty, and affective loyalty and conative loyalty were supported.

A cross-cultural survey of U.S. and Mexican students majoring in business administration was also conducted. As expected, positive relationships between satisfaction and cognitive loyalty, cognitive loyalty and affective loyalty, and affective loyalty and conative loyalty were supported.

Thus the CTA and F-C models are found to be reliable and valid, although not as originally envisioned by Oliver or the author. Limitations and future research directions are addressed.

DEDICATION

This work is dedicated to my wife, Melissa, my son, Stefan, and my daughter, Marissa. It is further dedicated to my father, John, and my mother, Mary Leigh.

ACKNOWLEDGEMENTS

The author thanks Dr. Michael Minor for convincing him 12 years ago that he was capable of earning a doctoral degree. The author thanks the other members of the dissertation committee for their guidance and support (in alphabetical order): Dr. John Sargent, Dr. John Villarreal, and Dr. Vern Vincent.

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information on the subject of virtual communities. Fellow students Mohammad Elahee, Jason MacDonald and Wolfgang Hinck served as positive role models. Finally, spiritual support was provided by Saint Jude Thaddeus, and our now dear departed dog, Lady.

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CHAPTER I

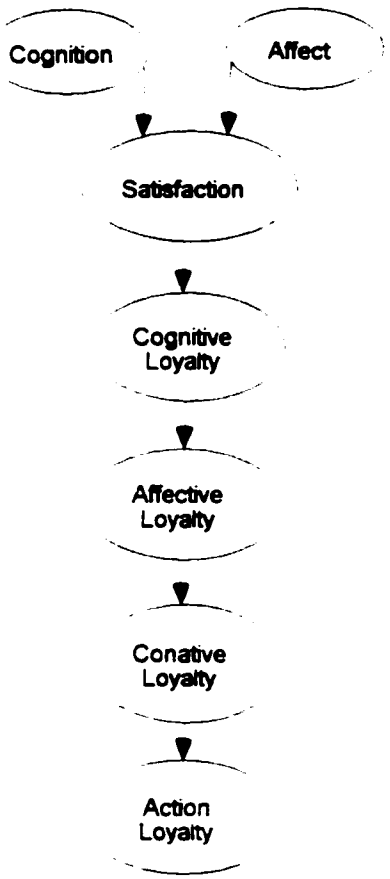
INTRODUCTION

Richard L. Oliver (1999) argues that the study of customer loyalty should largely replace the study of customer satisfaction. Customer satisfaction focuses on beliefs, feelings, and intentions, while loyalty describes behaviors. This position is also asserted by Neal (1999). Hence consumers may intend to continue to patronize a given retailer or product, but actual purchase behavior may be substantially different. Since purchase behavior is more definitive than purchase intentions, customer loyalty is the more salient construct for research investigation.

Oliver (1999) proposes two explanations of customer loyalty that he refers to as loyalty frameworks. These frameworks are actually models of loyalty behavior. The first is called the cognition to action (CTA) model (Oliver 1997). The CTA (see Figure 1.1) suggests that there are four phases of customer loyalty. The first phase is cognitive loyalty, which is based solely on brand loyalty and reflects the consumer's perception of product superiority. The second phase is affective loyalty, the result of cumulatively satisfying usage of a branded

product. An even stronger phase is conative loyalty, was characterized by repeated episodes of positive (emotional) affect toward a brand. The term "conative"

FIGURE 1.1
COGNITION TO ACTION (CTA) LOYALTY FRAMEWORK



Source: Adapted from Oliver (1997; 1999)

denotes desire and volition on the part of the consumer; the consumer is actively engaged both cognitively and

emotionally in pursuit of the brand to satisfy a desire for that product. The ultimate phase is action loyalty, which is the consumer's readiness to act; action loyalty infers that the consumer has progressed beyond pursuit of the brand to the desire to conduct an active search in spite of obstacles. For example, the amateur auto sports enthusiast seeks out not only the desired Bosch spark plugs for his Porsche, but also the specific heat range of those plugs to ensure the desired crispness of acceleration. These four phases of loyalty are attainable only after the consumer is satisfied in regard to cognitive and affective aspects of experience with the product/brand.

Oliver (1999) also proposed a new two dimensional loyalty framework centered on the constructs of personal fortitude and the feeling that the consumer is a part of a community of consumers. In this research it is termed the fortitude-community (F-C) loyalty model (see Figure 1.2). Fortitude refers to the effort exerted to decline the offers of competing products or services. For example, the traveler who regularly flies Southwest Airlines may do so because the flight attendants are particularly friendly and helpful, discounting the advertising appeals of competing airlines. The second dimension is the extent to which a consumer identifies with others using the same product. Some consumers identify themselves as Pepsi drinkers, others stick with Coca-Cola; similar sentiments are often

expressed regarding brands of beer and whiskey. Extreme examples of consumption communities are a club for women who own BMW automobiles, the Harley Owners Group (H.O.G.), and computer software user groups. Oliver asserts that creation of community does not require physical or virtual (i.e., the Internet) space. The necessary conditions are a relationship between a consumer and a branded product, as

FIGURE 1.2
FORTITUDE-COMMUNITY (F-C) LOYALTY MODEL

Source: Adapted from Oliver (1999)

well as a relationship between a consumer and the product's manufacturer.

Oliver (1999) depicts the fortitude and community loyalty dimensions as assuming high and low conditions. Hence, a low degree of identification with a community of consumers combined with a low desire to exert fortitude to continue consumption is characterized by product information limited to the brand, with loyalty arising solely from high quality and product superiority. A combination of low sense of community and a high degree of fortitude is characterized by a psychic romance and/or a love-like, unfailing commitment to the product (i.e., girls who adore the members of the band 'NSync). This is also termed "self-isolation," because a high fortitude individual is determined to ignore competing promotional appeals. Oliver defines the opposite case (a high degree of community identification combined with a low willingness to exert fortitude) "village envelopment." This is a condition in which a sense of belonging to a group of consumers provides more psychological benefits than the product or service associated with a consumption community. The ultimate loyalty condition is immersed self-identity, in which the consumer exhibits both a high sense of community and a high degree of fortitude. Under this "high-high" combination of conditions the consumer experiences fully bonded loyalty-the ultimate loyalty state.

FIGURE 1.3

DEFINING THE F-C LOYALTY MODEL

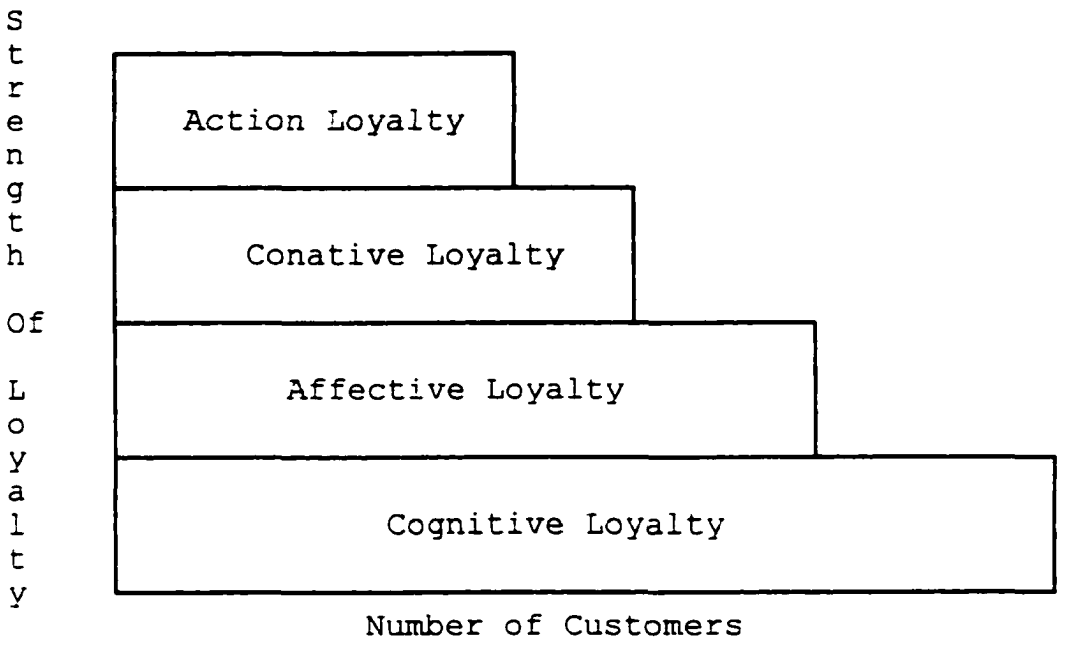
Community

Fortitude	Low	High
Low	Product Superiority	Consumption Community
High	Self-Isolation	Fully Bonded Loyalty

Source: Adapted from Oliver (1999)

In a high community-high fortitude condition the consumer identifies so closely with the product or service a symbiotic relationship is established. A product or service must become a very important part of a person's life and sense of well-being to attain this level of commitment. Products such as potato chips and paper towels do not achieve this degree of full bonded loyalty; services and "products" that demand a commitment and a high degree of involvement such as religion and body-building do. Like

FIGURE 1.4
DEFINING THE CTA LOYALTY MODEL



Source: Adapted from Oliver (1997; 1999)

the CTA model, the F-C loyalty model is attainable only after the consumer is satisfied with the product/brand.

Comparison of the Two Models

The CTA and F-C models describe two different hierarchies of loyalty that contain information of value to firms seeking to increase sales through repeat patronage. The principal difference between the two is in the mental states, attitudes, and feelings of consumers. The CTA

model describes ascending loyalty states in terms of increasing consumer confidence and satisfaction in a product or service that results in increasing commitment to repeated usage and the exclusion of the consideration of competing products. Thus, as the consumer's favorable experience with the product or service increases, so does the individual's loyalty.

The F-C model portrays loyalty on a higher plane than the CTA model, with combinations of high and low states of fortitude and community loyalty, ranging from low fortitude-low community to high fortitude-high community. It is also different from the CTA approach in that it introduces the concept of the consumption community. These communities increase customer involvement in the product, increase enjoyment in its use, and reinforce positive attitudes toward the product through social events with other users. Hence when firms encourage the creation of such communities, customer loyalty is likely to increase.

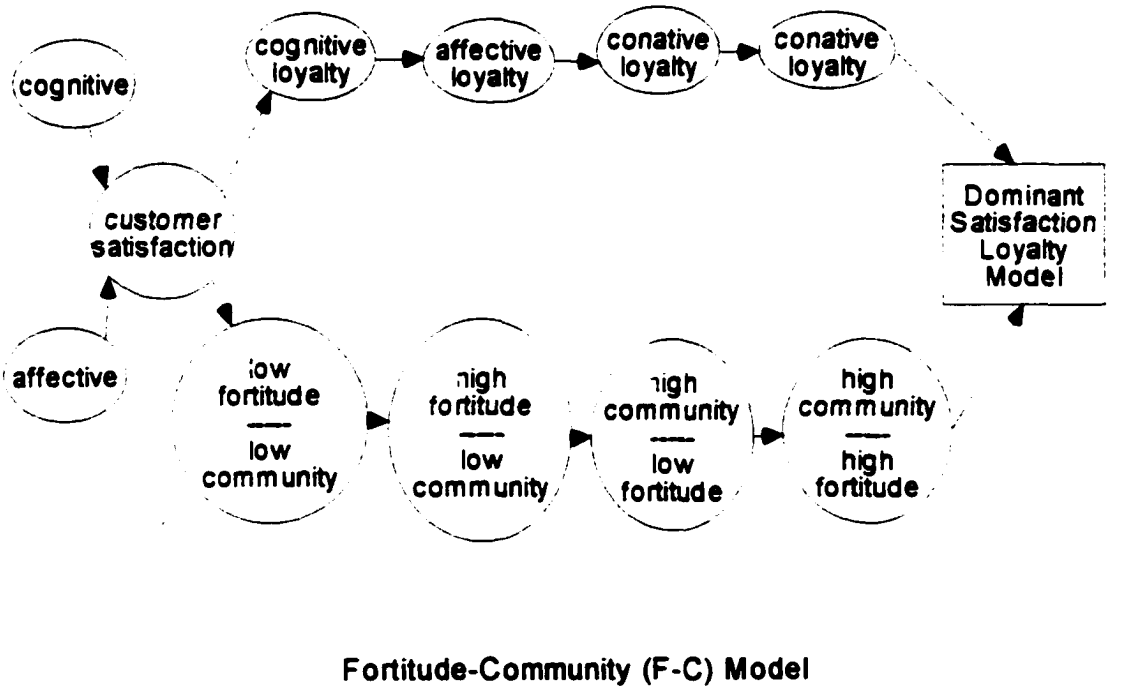
Research Questions

Neither the CTA nor the F-C loyalty models have been empirically tested; hence they exist only as proposals. Analysis is conducted to address two principal research questions.

1.) If the CTA and F-C models accurately explain loyalty, then we will have a better understanding of a very desirable consumer behavior.

Specifically, can loyalty be cultivated through the mechanisms of fortitude and/or community (Oliver 1999)?

FIGURE 1.5
ALTERNATIVE PATHS TO CUSTOMER LOYALTY



A better understanding of fortitude will be helpful to understand how or why consumers disregard the promotional appeals of competing products and services. Of the four loyalty phases the action loyalty state is the most

powerful and most valuable to the firm. A better understanding of how customers reach this state will provide an appreciation of the potential benefits of customer loyalty.

2.) We also need to understand how to obtain tangible benefits from customer satisfaction, which is a necessary but not sufficient condition for continued patronage of a product or service. Is Oliver correct in his belief that the two are divergent constructs, or is there is a degree of overlap between the two?

Understanding the commonalities and differences between loyalty and satisfaction is important because it is the means by which more efficient means of transforming improvements in customer satisfaction into improvements in loyalty and increased repeat patronage.

This increase in our understanding of customer loyalty and satisfaction will also improve the effectiveness of efforts of firms attempting to increase customer retention and repeat purchases. Promotional strategy that utilizes appeals for increasing cognitive, affective, conative, action, fortitude, and community loyalty guides consumers through a logical progression that is less likely to result in defection due to competing promotional appeals (Oliver 1999).

Purpose/Value of the Study

The purpose of this study is to conduct empirical tests on the CTA and the F-C loyalty models (Oliver 1999) to determine their reliability and validity. This research will also provide comparisons between the two models. The expected outcomes are to 1.) refine the differences between satisfaction and loyalty, 2.) complement research differentiating between situational and enduring loyalty (Dube and Maute 1998), 3.) examine customer convictions in favor of a product while ignoring its competitors, and 4.) examine the phenomenon of interpersonal relationships between consumers founded on consumption of a branded product.

First, this research will refine the differences between customer satisfaction and customer loyalty. This is important because the findings of some studies of loyalty have obtained inconsistent results. At least one study has found only a weak positive relationship between satisfaction and loyalty (Barnes 1997), and another noted that dissatisfied bank customers did not necessarily close their accounts (Holmlund and Kock 1996). But significant relationships between satisfaction and loyalty, and brand reputation and loyalty have also been found (Selnes 1993). Other work found that satisfied customers tend to be loyal (Fornell 1992), and one recent effort used customer retention to measure loyalty (Bolton 1998). The testing

and comparison of the two loyalty models will provide a more thorough understanding of the differences between satisfaction and loyalty.

Second, this research will also complement work that has differentiated between situational and enduring loyalty (Dube and Maute 1998). It also complements research differentiating between hard core and reinforcing loyalty (Yim and Kannan 1999), as well as other studies that have tested complex models that clearly differentiate between satisfaction and loyalty (Alonso 2000; Lervik and Johnson 2000).

Third, this research will also examine the extent to which the customer holds convictions in favor of a product to the exclusion of its competitors. And lastly, it will examine the extent to which the customer bonds with other users of the same product. The intended result is theoretically rigorous findings with practical applications that will contribute to a comparative advantage for firms in a position to put the findings into practice.

CHAPTER II

LITERATURE REVIEW

Discussion of the literature is in five parts. First is an exposition of customer satisfaction and its cognitive and affective components. Next studies of satisfaction and loyalty are reviewed. These two sections provide a foundation for the third section, which is a discussion of Oliver's (1997) CTA loyalty model. Reviewed next is Oliver's (1999) F-C loyalty model. This discussion also includes a review of virtual community research. In the fifth and last section the literature is summarized in the context of the CTA and F-C loyalty models.

Customer Satisfaction

The customer satisfaction-loyalty research stream is a very active subdiscipline in marketing. Well over 100 papers have been published in the last 15 years, with considerable interest directed toward the health care and financial services industries. The focus on these two areas reflects a keen interest in customer attitudes and behaviors in these business sectors. There is also considerable interest in nationwide studies of customer satisfaction, particularly in Sweden (Anderson, Fornell

and Lehmann 1994; Anderson and Sullivan 1993; Fornell 1992), the United States (Bryant and Cha 1996; Fornell et al. 1996), and Norway (Andreassen, Johnson, and Lervik 2000). These efforts concentrate principally on the antecedents and consequences of overall customer satisfaction. National consumer satisfaction research is also interested in the index scores of industries and individual firms, as well as changes in index scores over time. Hence, it is a long term longitudinal study of customer satisfaction.

The focus of this research is on the cognitive and affective (emotional) factors influencing customer satisfaction and loyalty, and the measurement of customer satisfaction and loyalty. The study also focuses on the measurement of fortitude via adoration and unfailing commitment, and a sense of community. Thus, the interest in the drivers of customer satisfaction is limited to their relationship with the emotional and social ways in which consumers relate to products and are loyal to them. The literature is discussed in the same manner. A review of cognitive and emotional factors is followed by an examination of attempts to measure satisfaction and loyalty.

Cognitive Factors

Oliver (1980) found that disconfirmation (the difference between expectations and the actual outcome) was

at least as important in accounting for satisfaction as expectations. Another study found that perceived performance influenced satisfaction more than expectation and disconfirmation (Tse and Wilton 1988). Other research found that equity and performance (in addition to expectation and disconfirmation) affected satisfaction (Oliver and DeSarbo 1988). The expectation-disconfirmation-equity framework has also been extended to include "fairness" (Oliver and Swan 1989). In this study equity and fairness were tested at the firm and employee level, finding that fairness influenced satisfaction more than disconfirmation and equity.

Expectancy disconfirmation as well as performance observations have also been found to affect customer satisfaction (Oliver and Burke 1999). Similar results were obtained in a study of product performance, need fulfillment, and customer satisfaction (Oliver 1995). Need fulfillment was measured in terms of under fulfillment, fulfillment, and over fulfillment. The pattern of results indicates that the measure is an extension of the expectation-expectancy disconfirmation-equity framework. Another refinement is the concept of price acceptance, also termed a willingness to pay. Huber and his colleagues (2000) found a positive relationship between price acceptance and satisfaction.

Limitations to the effects of expectancy disconfirmation on satisfaction have also been identified, as in the case of a durable product (Churchill and Surprenant 1982). Another study discovered that when the effects of congruency between customer desires and product performance on customer satisfaction were tested, expectancy disconfirmation effects were found to be insignificant (Spreng and Olshavsky 1993). And in a study of desires congruency and expectancy disconfirmation on satisfaction under conditions of high and low involvement, only weak disconfirmation effects were found (Spreng and Sonmez 2000). Thus, the notion of expectancy disconfirmation has been repeatedly confirmed but its presence is not always detected.

Confirmation of the effect of equity on satisfaction was found by Bolton and Lemon (1999), who found that payment equity was affected by normative comparisons of payment, performance, and usage, as well as normative usage expectations. Normative comparisons of payment also directly affected satisfaction. Similar to the concepts of equity and fairness is perceived gains and losses in the course of an ongoing service relationship (Bolton 1998). She found that perceived losses had.a stronger effect on service cancellation than gains had on service continuation. In sum, these studies of cognition in the evaluation of goods and services indicate that there is

strong theoretical support for the presence of the expectation-expectancy disconfirmation-equity framework in the formation of satisfaction judgements. But research also indicated that cognition alone provides an insufficient explanation of satisfaction.

Table 2.1

Literature Summary-Satisfaction

Cognitive Factors	Affective Factors
Oliver 1980	Westbrook 1987
Tse and Wilton 1988	Izard 1977
Oliver and DeSarbo 1988	Oliver 1992
Oliver and Swan 1989	Boyle 1984
Oliver and Burke 1999	Westbrook 1987
Oliver 1995 Huber et al. 2000	Mano and Oliver 1993 Watson, Clark and
Churchill and	Tellegrin 1988
Surprenant 1982	Manc 1991
Spreng and Olshavsky 1993	Oliver 1997
Spreng and Sonmez 2000	Diener 1992
Bolton and Lemon 1999	Bagozzi, Gopinath, and
Bolton 1998	Nyer 1999
	Giese and Cote 1999

Affective Factors

To improve upon the measurement of satisfaction research was conducted to explore its emotional aspects. One of the earliest such studies (Westbrook 1987) employed Izard's (1977) Differential Emotions Scale (DES II). Westbrook (1987) found that positive affect is positively related to satisfaction, and negative affect is negatively related to satisfaction; both positive and negative affect are related to post-purchase word of mouth. A subsequent effort that also used the DES II scale identified two satisfied patterns (happy and pleasant surprise), two dissatisfied patterns (angry/upset and unpleasant surprise), and one unemotional pattern of emotional experience that denoted neither satisfaction nor dissatisfaction (Westbrook and Oliver 1991). These patterns were based on three dimensions of emotional space: hostility, pleasant surprise, and interest. A third work that employed the DES II scale found that satisfaction reflected the general affective outcome of owning an automobile (Oliver 1992). Oliver also proposed that satisfaction may change during the consumption experience, from acquisition of the vehicle to its use and discovery of performance attributes, and the evolution of performance outcomes thereafter. This study agreed with prior efforts in suggesting that the DES II scale was less than ideal

when other scales were available (Boyle 1984; Westbrook 1987).

Consequently, subsequent research (Mano and Oliver 1993) used the Positive and Negative Affect Schedule (PANAS scale, validated in Watson, Clark, and Tellegen 1988), and the circumplex scale (developed in Mano 1991). Mano and Oliver (1993) found that utilitarian and hedonic judgments used to evaluate products occurred prior to pleasantness and arousal (two affective dimensions), jointly causing product satisfaction judgments. They noted that satisfaction is influenced by both affective and cognitive judgments, which are mediated by affect. Thus, satisfaction is not only partially cognition, but also partially affect. Hedonic evaluation is mainly affective, and utilitarian evaluation is mainly cognitive. Considerable guidance is provided by Oliver (1997) regarding use of Larsen and Diener's (1992) self-report affect circumplex. The scale includes emotions such as elated, cheerful, calm, aroused, quiet, annoyed, gloomy, and bored.

Similar work was conducted in a conceptual study by Bagozzi, Gopinath, and Nyer (1999), who were skeptical of the notion that satisfaction is an emotion. They believed that satisfaction is not a basic emotion, or a central emotional category, suggesting that satisfaction may be a synonym for "happy." However they encourage the study of

the effects of emotions on satisfaction and dissatisfaction. Giese and Cote (1999), took an opposite point of view. They concluded that satisfaction is an affective response, with a time-specific point of determination that is focused on aspects of product acquisition and/or consumption.

Oliver (1997) adopted a position between that of Bagozzi and his colleagues (1999), and Giese and Cote (1999). He concluded that affect belongs within a cognitive framework of satisfaction. Thus there is a degree of disagreement regarding the relationships between satisfaction and its antecedents.

These studies indicate that there are affective aspects of satisfaction that provide information not obtained from cognitive measures. However these efforts quantitatively add to the understanding of satisfaction without qualitatively improving an understanding of satisfaction. Thus the next logical step in satisfaction research is obvious-the study of both.

Cognitive-Affective Satisfaction Appraisal

Oliver (1993) used product attributes and disconfirmation to measure the cognitive dimension, and affect measures derived from Izard's (1977) DES scale to measure emotional aspects of satisfaction. He found that combining affect measures with disconfirmation and attributes better explained satisfaction than attributes

and disconfirmation. Of the three factors disconfirmation is the most powerful, while items concerning attributes were the least potent. He concedes that this result may be an artifact of the data he used.

More recently, research has been conducted to determine the cognitive and emotional influences on customer delight (a condition of highly satisfactory consumption), satisfaction, and repurchase intention (Oliver, Rust, and Varki 1997). In surveys of patrons at a wildlife theme park

Table 2.2

Literature Summary

Cognitive & Affective	Satisfaction & Loyalty
Oliver 1993	Oliva et al. 1992
Oliver, Rust and Varki 1997	Lervik and Johnson 2000
	Selnes 1993
	Dube & Maute 1998
	Bolton 1998
	Alonso 2000
	Dowling and Uncles 1997

and a symphony concert, a pleasantly surprising performance affected arousal and positive affect. Disconfirmation

affected satisfaction directly and through positive affect, and satisfaction affected repurchase intention. With respect to only the concert patrons, delight with the performance moderated the effect of positive affect on repurchase intention. These findings confirm Oliver's opinion that affect is a part of a cognitive framework that supersedes the emotional response to consumption.

Studies of Satisfaction and Loyalty

A limited amount of research has analyzed the relationship between satisfaction and loyalty. These studies measure loyalty as an attitude/belief, a behavioral intention (or the intent to repurchase), or as a behavior.

Oliva and his colleagues (1992) applied data from a customer satisfaction study to illustrate a catastrophe model of customer loyalty. Although their measure of loyalty was limited to one or more questionnaire items asking for a global evaluation of the firm, they were able to demonstrate a nonlinear relationship between customer satisfaction and loyalty. They recommended that future studies replace their attitudinal measure of loyalty with one that identifies the independent variables associated with purchase behavior. In an effort to determine whether equity or satisfaction moderated the effects of the product, service, and value on loyalty, Lervik and Johnson (2000) used behavioral intentions (likelihood to repurchase, reduce repurchase, replace service provider,

etc.) to measure loyalty. They determined that equity at least partially moderated the relationship between the independent variables and satisfaction, and that satisfaction fully moderated the relationship between the independent variables and loyalty. Similarly, loyalty was measured by intended behavior in a study of the moderating effects of satisfaction between product performance and loyalty (Selnes 1993). The performance -> satisfaction -> loyalty hypothesis was confirmed for the products subjects were likely to use, such as insurance, telephone service, and a business college. A distinction between short-term and long-term loyalty was drawn by Dube and Maute (1998), who found that satisfaction moderated the effects of efforts to enhance product value and recover from instances of service quality failure. They noted, however, that satisfaction had a stronger effect on short-term than long-term loyalty. Both types of loyalty were measured in terms of hypothetical behavioral responses.

A longitudinal study of the relationship between satisfaction and relationship duration measured the dependent variable as the number of months that the customer had been doing business with a cellular telephone service (Bolton 1998). One can argue that relationship duration is a fulfillment of the intention to continue cellular telephone service, and hence can be classified as a form of customer loyalty, particularly in the context of

a longitudinal study. This assertion is supported by the positive relationship found between satisfaction and relationship duration, similar to that found in other satisfaction-loyalty research. Satisfaction was affected by the positive and negative experiences with the service, with negative instances having a larger effect than positive instances, but mitigated by long periods of good service quality. The retention-is-loyalty assertion is also supported by a recent study of long-distance telephone service in which familiarity, risk, shared values, and opportunistic behavior moderated the effect of a satisfactory consumption experience (Alonso 2000).

Lastly, customer loyalty programs actively encourage frequent patronage in the short run by offering rewards in the long run; the promise of future rewards are intended to increase customer satisfaction. In doing so, firms attempt to enhance the value of their product, increase customer satisfaction, and create loyalty via frequent repurchase (Dowling and Uncles 1997).

The CTA Loyalty Model

Oliver (1997) asserts that loyalty can be described as progressing in four phases (see Table 1). The first phase is cognitive loyalty, which is based on a comparison of the information available regarding the products of two or more firms. For instance, Tabasco is a very famous brand of hot sauce, and many other products now contain the condiment as

a flavor-enhancing ingredient. Since more is known about Tabasco than its competitors a consumer may be more likely to buy it, based on expectations derived from a logical assumption that fame infers quality. This loyalty stage is weak, however, because the consumer is susceptible to discounted pricing promotions and advertising appeals by competitors.

Table 2.3

Defining the CTA Loyalty Model (Oliver 1997; 1999)

Loyalty Condition	Characteristics
Action Loyalty	Ultimate Loyalty
Conative Loyalty	Strong Commitment to Buy
Affective Loyalty	Cumulative Satisfaction From Product Usage
Cognitive Loyalty	Brand-Belief Information Only

Affect is the second loyalty phase (Oliver 1997). As a consumer accumulates experience with a product, an attitude based on satisfactory usage evolves. Conversely,

unsatisfactory experience with the product would be a barrier to the formation of affective loyalty. This means that a cumulative process is in effect in the transition from the cognitive phase to the affective stage, as cognition combined with attitude and satisfaction to result in affective loyalty. Thus, experienced Tabasco consumers appreciate its homogenous consistency in the bottle, as well as its sharp hot pepper taste on food and in beverages. But Oliver notes that affective loyalty is not a guarantee of loyalty; at this stage consumers as a group remain fickle. Loyal customers think that the product is a good one, and they have formed positive emotional associations with it, t th. con umer remains susceptible to the promotional appeals of competing brands.

"True" loyalty begins in the third stage, termed conative loyalty (Oliver 1997). This level can also be termed "behavioral intention" loyalty. This construct is similar to the "impulse or compulsion to act," which was termed the conative path in a model of purposeful behavior (Bagozzi 1993). Conative behavior explains an unplanned urgency in consumer behavior that does not necessarily involve a logical decision-making process. At this phase there is a deeply held desire (or motivation) to repurchase, but this type of loyalty is vulnerable to exhaustion of the impulsive or compulsive repurchase behavior. Thus, the lack of a logical reasoning process in

conative loyalty means that the concept falls short of the ultimate loyalty state.

The ultimate loyalty state is action loyalty (Oliver 1997). "Action" refers to the action control process, in which a combination of intention and motivation result in a readiness to act and a desire to overcome obstacles that in turn result in action taking place. Action loyalty is derived from action orientation, in which the individual is focused on a fully developed action structure; the opposite condition is the state orientation, in which the individual is focused on an internal or external state. An extreme example of state orientation is a lack of any coherent conscious thought (i.e., absent-mindedness). The action control construct has been found to be an efficient cognitive process, characterized by selective attentional mechanisms, parsimonious information-processing, and motivational and emotional control (Kuhl 1985). Action loyalty completes the progression from cognition to affect and conation in that intentions become deeds. Presumably at this point the consumer's devotion to the brand is nearly unshakable.

The CTA model is similar to the notion of short-term and long-term loyalty (Dube and Maute 1998), discussed above. Another two-part loyalty concept is that of hard core and reinforcing loyalty (Yim and Kannan 1999). The difference between the two is the type of consumer brand-

Table 2.4

Literature Summary

CTA Loyalty Model	F-C Loyalty Model
Oliver 1997	Oliver 1999
Oliver 1999	Murray et al. 1996
Bagozzi 1993	Miller 1997
Kuhl 1985	Ping 1994
Dube and Maute 1998	Sambandam & Lord 1995
Yim and Kannan 1999	Fournier 1998
	Ahuvia 1992
	Belk 1988
	Lamoreaux 1986
	Boorstin 1973
	Goodwin 1996
	Young 1971
	Fenstermaker 1965
	Friedman et al. 1993
	Putnam 2000
	Schouten and Alexander 1995
	Arnould and Price 1993
	Belk and Costa 1998
	Hausman and Minor 2001
	Fisher and Wakefield 1998
	Wilson 1995

switching behavior. Hard core loyalty is what its name implies-almost unfailing devotion to a product. Reinforcing loyalty is exhibited by consumers who occasionally switch to other products but usually purchase one alternative to which they are more loyal than to its competitors. Hard core and reinforcing loyalty are somewhat similar to Oliver's (1997) conative and affective loyalty, respectively.

The F-C Loyalty Model

In reaching the conclusion that the study of loyalty is more relevant to firm success than satisfaction, Oliver (1999) proposed a second conceptual framework of loyalty that emphasized the importance of building and maintaining customer loyalty (see Table 2.2). It is composed of two dimensions, fortitude and community; each assumes high and low conditions.

Fortitude

Fortitude is the extent to which a consumer ignores or fails to attend to the enticements made by competitors of the branded product to which he is loyal. From the firm's point of view, fortitude is the threshold below which customers are not aware of superior alternatives to the product to which they are loyal. Conceptually, fortitude in the context of a consumer's relationship with a branded product can be compared to the relationships between couples. For instance, social psychology research has

Table 2.5

Defining the F-C Loyalty Model (Oliver 1999)

Loyalty Condition	Characteristics
High Community High Fortitude	Immersed Self-Identity
High Community Low Fortitude	Consumption Community Social Consumption Village Product/Service Based Camaraderie
High Fortitude Low Community	Determined Self-Isolation Unfailing Commitment Love-like Commitment or Psychic Romance
Low Fortitude Low Community	High Product Quality Product Superiority

found that idealized perceptions of one's significant other (wife, girlfriend, boyfriend, fiancé) are positively related to happier relationships (Murray et al. 1996).

Likewise, the fortitude concept suggests that an idealized perception of a branded product is associated with a very satisfied and loyal customer. Another study of male-female relationships found that attention paid to members of the opposite sex (rather than one's significant other) was positively related to the propensity of the couple to terminate their relationship (Miller 1997). Hence, just as looking at other women increases the chance that a boyfriend will sever his relationship with his girlfriend, consumers with low fortitude are more likely to notice the appeals of competing products. This notion was confirmed in a marketing channel study that found that dissatisfaction was positively related to the attractiveness of alternatives and an intention to terminate the relationship (Ping 1994). Other research has found that less satisfied automobile owners will engage in an information and dealer search, and compile a larger consideration set than more satisfied car owners (Sambandam and Lord 1995). They also found a positive relationship between length of car ownership experience and satisfaction, and note that these individuals also tended to validate their choice of make, model, and dealer from their last purchase when planning the purchase of a new vehicle. This suggests that a low fortitude condition due to dissatisfaction may encourage attention to the

information provided by competing brands, a possibility Oliver (1999) did not consider.

Fournier (1998) conducted a qualitative study that examined the relationships between people and their brands. This effort conceptualized the quality of the relationship between the consumer and the brand as composed of six factors: passion or love, self-connection, commitment, interdependence, intimacy, and brand partner quality. The study also identified three distinctly different brand relationship types. In this research the strength of a consumer's fortitude is related to the consumer's relationship type; some consumers look upon brands as being merely means to an end, while others think of them as being consistent with their own self-image.

Lastly, research has been conducted to measure the dimensions of product love, or the treatment of products as love objects (Ahuvia 1992). Strong product brand love would certainly be associated with a very high fortitude condition, and self-constructed barriers to prevent unwanted information concerning competing brands from gaining one's attention.

A consumer's relationship with her possessions can be intimate to the point of being a part of the extended self (Belk 1988). Belk suggests that a possession is incorporated in the self via control, creation, and/or knowledge. Specifically, by creating money through

earnings and savings one enlarges the self because of the opportunities that money provides. This can lead people to associate their well-being with the well-being of their money. As an example, it even suggests that individuals want to conduct business with the financial institution that they believe is best suited to meeting all of their needs. Thus in a high fortitude state, the consumer actively screens out the enticements of brands competing with the object of his loyalty, which approaches a degree of adoration approaching love, and/or an unfailing commitment toward a product. About a decade ago this concept was put into print in the form of bumper stickers that said "I Love My Credit Union."

Community

The second dimension is community, or social support (Oliver 1999). A sense of community can be found in the kinship of family and the extended family (Lamoreaux 1986). Other forms of community include consumption communities of individuals (Boorstin 1973). There are also business communities characterized by close-knit communality between business relationship partners (Goodwin 1996), and the kinship among entrepreneurs (Young 1971).

One example of a kinship community can be illustrated by the history of the funding structure of the banking industry. The ownership of banks in the United States in the 18th and 19th centuries was usually confined to one to

three extended families (Fenstermaker 1965; Lamoreaux 1986). These institutions were predominantly funded by their shareholders; deposits were a minor portion of the funding base. Because they were such thoroughly close-knit organizations, the vast majority of their lending was confined to the insiders who owned the bank. Eventually the banking industry evolved into its present form, with most institutions owned by large numbers of shareholders, and deposits dominating the funding base. Perhaps the inheritors of this kinship-based system are credit unions, which are owned by their members.

The notion of consumption community is credited to Boorstin (1973), who asserted that the early 19th century immigrant and ethnic communities of the United States had now been largely replaced by communities of consumers bound together by the goods that they bought and used. New technologies such as the sewing machine made possible the mass production of ready-to-wear clothing, which led to department stores such as Macy's, which in turn stimulated a revolution in the advertising and policies and circulation of newspapers. Sears elevated the mail order business to a new plateau, and prompted the creation of Rural Free Delivery mail service. Thus America became a nation of communities united by common consumption symbols, which in turn identify not only the members but also the groups themselves. Boorstin's notions were empirically

tested by Friedman and his colleagues (1993), who found that there was a sense of community, albeit a weak one, among Masters of Business Administration students in the United States and Belgium.

A very recent effort (Putnam 2000) seeks to account for a decline in a sense of community, operationalized as social capital. Since 1965 there has been a notable decline in volunteerism, participatory democracy, civic life, and social involvement. This has included a decline in both bonding social capital and bridging social capital; the former refers to homogeneous interactions, while the latter refers to heterogeneous associations. The decline since 1965 marks a turning point in a trend of increasing community involvement that began about 1900. The implications of this decline in social capital are said to hold negative implications for education, the cities in which we live, the U.S. economy, democracy, our trust in one another, and our well-being.

One possible cure for the decline in social capital (and community involvement) is the Internet (Putnam 2000). As a network comprised of telephone lines the Internet may fulfill the potential envisioned by Alexander Graham Bell. Bell believed that the telephone system would perform a broadcasting function similar to that later assumed by radio. While the Internet may have the potential to disseminate bridging social capital (bringing together

heterogeneous groups), Putnam fears that only bonding social capital (bringing together homogeneous groups) will proliferate. The factors contributing to this problem are the "digital divide" (the still prohibitive cost of computers), barriers to nonverbal information (owing to the structure of the medium), and a tendency of Internet users to seek others with similar interests and concerns. There is also the question of whether or not the Internet will remain a telephone-line based medium. The alternative would be a cable- or satellite-television based medium (i.e., Road Runner or Directv DSL). Hence the Internet is not envisioned to be a swift solution to the decline in social capital, yet its potential to reverse the decline in social capital exists.

One of the consumption communities best known to consumer marketing scholars is that composed of the owners of Harley-Davidson motorcycles (Schouten and McAlexander 1995). For many years there has been an almost cult-like camaraderie shared by owners of this marque of motorcycles, which are affectionately referred to as "Hogs." This sense of community is actively encouraged by Harley-Davidson, Inc. through the Harley Owners Group (also known as H.O.G.), corporate-sponsored events, and an extensive product line of licensed merchandise. The goals of the factory's efforts are not only to cultivate fully immersed loyalty, but also to attract a wider range of motorcycle

enthusiasts to suppress the outlaw reputation that owners of Harleys have acquired over the years.

Similar ethnographic studies have explored other close-knit "communities" of consumers. The relationships between tourists and white-water rafting guides found similar sentiments of solidarity and camaraderie in the course of arduous journeys through rapids on rain-swollen rivers (Arnould and Price 1993). Adverse conditions encountered on the trips instilled a special feeling of kinship among and between the tourists and their guides, resulting in an intensely satisfying experience. Belk and Costa (1998) analyzed the idealized, romantic re-enactments of Mountain Man rendezvous events. They identified the rites of intensification and rituals employed by the participating men, women, and children to fully immerse themselves in the lifestyle of Western fur trappers of the 18th century. A similar consumption community in virtual form is composed of Disney World fanatics (Hausman and Minor 2001). They observed a similar kind of immersion of the participants in the "culture" of their consumption community. They also noted that members perceived that devotion to their community was irresponsible (i.e., a "bad boy" image that was described by Belk and Costa [1998]).

Other work has studied the reasons why the fans of professional sports teams identify with and support their team (Fisher and Wakefield 1998). They found that the fans

of an unsuccessful team followed them because they enjoy watching the game played, and more importantly, they admire the players for their contributions to the sport that have nothing to do with winning. Examples include holding clinics for children, and other behavior indicative of good citizenship. Fans of the successful team in the study were followers primarily because of their winning record. The implications of these results are that while a special and durable bond is formed between losing teams and their supporters, the followers of a winning team may be unwilling to attend games during a protracted losing streak, and will stop purchasing team-related merchandise. Most striking is the irony that a consistent, poorly performing team can enjoy a closer relationship with its community than a team that has recently lost its knack for winning.

Research has also been conducted in regard to a sense of solidarity or kinship in the business community. One such study of the service industry has proposed that certain characteristics of the service setting, consumer traits, situational variables, and the role of the service provider may improve the relationship between the customer and the service provider (Goodwin 1996). In such a relationship the communal behavior of the consumer and service provider (i.e., extroversion leading to a willingness to converse) is interpreted by the counter-

party as a voluntary gesture, and is not attributed to opportunistic motives of the service provider. Goodwin (1996) terms this type of relationship "communality." The sentiment is best expressed by a securities salesman who once said, "your friends may not do business with you, but sometimes the people who do business with you become your friends."

The communality found in business-to-consumer marketing has a business-to-business counterpart-relationship marketing. Relationship marketing refers to a higher degree of commitment, trust, cooperation, mutual goals, interdependence, nonretrievable investments, shared technology, and structural and social bonds between businesses than in traditional, transactional relationships (Wilson 1995). In Wilson's formulation, firms transacting business form a closer relationship with one another in a five-stage process in which a partner is selected, the purpose of the relationship and its boundaries are defined, the competitive abilities of the partners create value for the parties in the relationship, and the hybrid organization formed in the boundary-definition stage is maintained to continue the value-creation process. A successful hybrid organization is one in which the employees of both of the partner firms provide tangible benefits to their respective firms in an atmosphere of

cooperation and commitment, with strong structural bonds-in effect a unique form of community.

Thus there are a number of ways in which consumers and business people (Goodwin 1996), or businesses (Wilson 1995), can acquire a sense of identification with one another. The extent to which consumers can identify with others using the same product is termed "community" (Oliver 1999). A community of consumers provides a social support structure in which the users of a branded product can reinforce in each other their loyalty and commitment to the brand. This support system may block the onset of cognitive dissonance after the purchase of the product. Socialization in the group may facilitate resolution of product or service failure, or even prevent product or service failure from taking place. Customer loyalty programs may increase loyalty (and product repurchase) by causing consumers to believe that they belong to an elite group of customers. Forming close social bonds between service providers or suppliers and their customers may increase loyalty through a higher degree of reliance and enhance customer loyalty. The stronger the communal bonds between the product and the consumer, the stronger the consumer's loyalty is thought to be. "Communality" (Goodwin 1996) describes a special relationship between consumers and a service provider in which strong loyalty bonds are formed.

At least one empirical study sought to test Boorstin's (1973) proposed consumption community concept. Friedman and his colleagues (1993) encountered problems in measuring the mutual recognition among MBA students of the similarity of their consumption patterns. The discussion of their questionnaire was also sufficiently vague to discourage replication of their effort; the fact that their instrument contained 92 items virtually precluded replication here, as community is only a portion of the present study.

Virtual Communities

The growth in Internet usage and shopping online suggests that new consumption communities are forming on the world wide web. Discussion groups such as those composed of Disney World fanatics appear to be acquiring the characteristics of Boorstin's (1973) consumption community in virtual space, where participation can take place 24 hours a day (Hausman and Minor 2001). Perhaps some of the difficulties encountered in measuring traditional consumption communities can be overcome or bypassed by quantifying the concept of virtual community.

Putnam (2000) leaves open the question whether communities can be formed on the Internet. The computer mediated communication literature addresses this very topic. For a number of years, the Internet has been used by many people to discuss academic matters, political issues, special interests, and socialize, either synchronously in

chat "rooms" or asynchronously in newsgroups or listserves. The growth and popularity of these computer mediated

Table 2.6

Literature Summary

Virtual Communities	
Hausman and Minor 2001	Putnam 2001
Jones 1995	Agre 1998
Baym 1995	McLaughlin et al. 1995
Poster 1998	Reid 1995
Jones 1997	Breslow 1997
Fernback 1997	Mitra 1997
McLaughlin et al. 1997	Friedman et al. 1993
Watson 1997	Kerner 2001
Oliver 1999	Schouten and Alexander 1995

communications has spawned interest in the study of virtual communities. Virtual communities are created out of a desire to freely discuss matters of common interest among a group of people (Jones 1995). Jones asserts that computer networks are used to do so because they are more efficient than other means of communication. The major limitation of computers is that they do not provide the nonverbal

dimension of communication obtained in face-to-face discussions. This shortcoming is due to the technological limitations of and high operating costs of networks. Ironically, this limitation form the structure which creates one of the fundamental boundaries of a community of discussants.

Agre (1998) believes that communities are formed by people in social or institutional settings who are engaged in collective cognition. Participants learn from the group discussion, set strategies, and create their own jargon in a social location. The social location of online communities takes place in a virtual environment. The development of newsgroup communities is influenced by the asynchronous communications between members, the software used to access the newsgroup, the purpose of the group, and the characteristics of the members (Baym 1995). Groups tend to adopt a means of overcoming the lack of nonverbal communication ("emoticons", i.e. a smiling face :->), a policy regarding pseudonyms (i.e., whether or not they are allowed), and the development of behavioral norms. This results in bonds of camaraderie between members of the group, which sometimes extend to social interaction outside the group via e-mail, telephone, or in person. However, not all online groups develop into communities (Baym 1995). An online group becomes a community when participants create group-specific meanings from the discussion of

social information, socially agree upon group-specific identities, and create the norms mentioned above. These norms are necessary to create and maintain a consensus of comity. Together these factors support socialization among members.

McLaughlin and her colleagues (1995) studied the interactions of participants in a virtual garden. They suggest that virtual communities set standards that differentiate between acceptable and unacceptable behavior. Standards include definitions of the subject matter and language that are appropriate for pursuit of the group's interests, as well as the subject matter and language that are out of bounds. These communities also develop means to enforce standards of acceptable behavior. Violators of these standards are confronted and punished. Hence, the normative dimension sets boundaries that differentiate one online community from another, reinforcing the notion that the group was a community.

Poster (1998) asserts that the Internet is a heterogeneous, not homogeneous social object. For instance, adolescents also socialize extensively online in chat "rooms," where some of them even go on virtual dates (Clark 1998). Another example is Multiple User Domains, commonly called MUDs (Reid 1995). Unlike newsgroups and listserves, MUDs use synchronous communication, allowing conversations to take place in real time. Also

differentiating MUDs from other types of online groups is the wide degree of latitude given to participants in identifying themselves. Some MUDs allow members to assume more than one identity at any given time, and permit an ambiguous disclosure of the participant's gender.

While individual online groups are homogeneous (formed by people with similar interests to discuss a specific topic or issue), the Internet is heterogeneous, composed of many dissimilar online groups operating by different rules, and communicating via different methods. Using Putnam's (2000) dichotomy, homogeneous Internet groups have the potential to create bonding social capital, while heterogeneous groups potentially create bridging social capital. Thus the Internet has the potential to be a community, as do online groups or specific web sites, but they are different in the way common interests are shared.

The next issue concerns the qualitative aspect of online communities. Some scholars argue that virtual communities are pseudo-communities. For instance, Jones (1997) asserts that while people belong to a brick and mortar community in a conventional sense, a virtual community is comprised of individuals whose contributions form the substance of its constituent community. The virtual community is thus an incomplete or false community because it lacks a physical place. This shortcoming means that participants are only aware that there are other

people similar to them, and that the members as a group are aware of their fellow participants. To be genuine a virtual community must have human occupancy, commitment, interaction, and life in the company of others. In contrast, participation in online groups takes place in one's spare time, when one is not with family, friends, co-workers, or fellow students. This infers an aimless connectedness in the interaction with other online participants.

Jones (1997) acknowledges that the Internet is thought to be a new means of social mobility, and a potential cure for the decline in participation in community affairs. However, while the Internet has been successful in bringing together people in a spirit of cooperation, Jones asserts that the Internet has not encouraged intimacy and fellowship. For this reason the Internet has not created real communities. Similarly, Breslow (1997) argues that the Internet may continue the decline in participation in civic affairs that began in the late 1960s with the growth of the suburbs and the decline in the power of labor unions. Breslow also believes that as more people spend more time pursuing virtual socialization on the Internet, they will become more isolated from one another as their face-to-face socialization decreases. This in turn may cause a decline in solidarity among people.

Another discussion of the decline in civic involvement addressed the dichotomies of individuality and collectivity (Fernback 1997). He argues that too much individuality suppresses cooperation and coordination necessary for participation in civic affairs, while too much emphasis on the collective good of the community suppresses freedom of self-expression. Fernback's solution is a "virtual community as collectivity" that maintains principles of democracy and egalitarianism. Thus the tolerance, open-mindedness, and freedom of expression found online provides a degree of humanity to "citizens" of the Internet that may be found lacking in real communities.

A similar view is that virtual communities are shared systems of culture, language, and beliefs (Mitra 1997). When many people of such a community live far away from one another, the Internet becomes the best means of maintaining a sense of solidarity as a people. This is simply because there is no other medium of personalized mass communication that can efficiently overcome the geographical distance between members of the community. While she concedes that the Internet may be a poor substitute for one-to-one interaction for the overseas Chinese community, Mitra asserts that it is ideal for the overseas Indian community. She suggests that the difference between the two cultures may be that the Chinese move to and live in the U.S. in large groups, while Indians usually emigrate alone or as a

family. Hence the Internet may be the best viable means for Indians to maintain a sense of solidarity as a people, while the Chinese find it a poor second choice.

A study was conducted to determine whether an online community would spontaneously form on a web site created solely for the effort (McLaughlin et al. 1997). A quantitative analysis obtained results similar to those of Friedman and his colleagues (1993)-a weak overall sense of community, but a sense of community nonetheless. McLaughlin and her colleagues also conducted a qualitative analysis, which identified among the active participants a strong sense of community. Evidence included the formation of interpersonal relationships, community rites and rituals, a hierarchy of members based on social status, a distinctive culture, a commitment to fellow members and the community itself, and a system of confronting unacceptable behavior and disciplining transgressors. The researchers do not conclude whether the effort to create a community was successful or unsuccessful.

A case study of the phish.net community of music enthusiasts argues that a true community exists on at least this web site (Watson 1997). Watson asserts that the virtual community offers participation in the form of not only communication, but also communion that provides an intimacy of interaction between participants. This intimacy of interaction is argued to overcome the need for

a physical place for the formation of a true community. The pursuit of the commonality of interests of the phish.net web site members has exerted the market and political power necessary to make changes in the marketing of the musical group to which the site is dedicated. Watson argues that these efforts by the members of the phish.net community have been more successful than those of structured communities located in physical communities. The success of the phish.net community is expected to be a trend in the evolution of communities, in which virtual communities should be referred to merely as "communities" to acknowledge their effectiveness.

Another example of efforts to encourage community loyalty through a web site involves purchasers of CDs of the rock band "Vine" (Kerner 2001). These individuals are encouraged to become "pollinators." Pollinators encourage their friends to buy the band's music by sending them three songs that they want their referrals to hear. If a pollinator's friend buys one of the band's CDs a cash commission is paid.

Computer mediated communication research results have a number of implications for promoting a sense of community among a firm's customers. First, recall that Friedman et al. (1993) in a study of the similarity of consumption patterns of MBA students found a weak degree of community. This finding was confirmed by McLaughlin et al. (1997), who

studied participation in a virtual garden. These two studies form a starting point in comparing real and virtual communities. The subjects in the latter study communicated with each other in real time. This implies that a firm that seeks to promote a sense of community on its web site might do so by this synchronous form of communication. Research conducted on the phish.net (Watson 1997) and discussion of the vineofsouls.com (Kerner 2001) web sites determined that asynchronous forms of communication such as e-mail and bulletin boards can also promote a sense of community. Thus, what is important in building a community is communication, not the method of communication. Another implication is that firms can choose the method of communication that best suits their purposes.

The pseudo-community problem (Jones 1997) should not be ignored; members of a virtual community think the community belongs to them. This implies that using a web site to promote a sense of community among customers may not be sufficient, given the fact that people are thought to access the web in their spare time. Of less concern is the awareness problem, given the fact that people are unlikely to visit a virtual community when they have responsibilities to fulfill elsewhere. Conversely, if a person has sufficient time to develop friendships in a firm's virtual community, any lack of awareness of others in the community will be overcome. The assertion that

virtual communities can not be true communities because they lack human occupancy may not hold if an individual does not participate meaningfully in a real community. Participation in a firm's virtual community might be an enjoyable pastime that fulfills a need to associate with others. A firm attempting to promote a sense of community with its customers would want to encourage fellowship with them. The asserted failure of virtual communities to do so is unlikely to be attributable to inherent limitations of the Internet.

Evidence that a sense of community can be created in virtual space is available (McLaughlin et al. 1997; Watson 1997). Specifically, Watson argues that the quality of the communications between participants is sufficient for the formation of a virtual community. McLaughlin and her colleagues tested this notion by creating a web site on which a vocal minority of individuals adopted a community orientation. The caveat to those firms that would seek to replicate their success is that only a fraction of the customers agree that the site is a community. In order to attract and maintain such a community a firm's web site must give people a compelling reason to return to the site frequently.

Studying virtual communities completes the F-C model in two ways. First, prior consumer community research indicates that detecting a sense of community is

problematic (Friedman et al. 1993), and only a minority of firms can create and maintain a community of fanatics of their product(s) or services (Oliver 1999). Virtual consumption community is a concept that has been suggested to exist, but has not been tested. Perhaps consumption communities have both virtual and real-world dimensions, and are more amenable to testing than traditional communities. Second, regardless of the presence or lack thereof of virtual communities today, research indicates that the probability of a firm's success could be enhanced when its web site encourages relationships among its customers based on their consumption of the firm's products or services that causes customers to believe that they are members of a special group. This is the same kind of self-sustaining loyalty to the firm and its products that is enjoyed by Harley-Davidson (Schouten and Alexander 1995).

Summary of the Literature

Customer satisfaction is explained by cognitive judgments which include expectation, expectancy disconfirmation, attitude, intention, perceived performance, equity, fairness, performance observations, congruency between customer desires and product performance, normative comparisons of payment, performance and usage, normative usage expectations, perceived gains and losses, need fulfillment, and willingness to pay. Of all of these factors the two that have withstood formal

investigation repeatedly are expectancy disconfirmation (the difference between expectations and the actual outcome) and equity.

Significantly less research has been conducted on the affective factors that contribute to explanations of customer satisfaction. The first studies of the affective dimension of satisfaction used Izard's (1977) DES II scale. A consensus of dissatisfaction with the instrument formed due to a lack of stability in its use, and scholars were cautioned to use other affective scales. Better results were obtained by Mano and Oliver (1993) who found that hedonic evaluation was dominated by pleasantness and arousal in explaining satisfaction. Conceptual studies by Bagozzi, Gopinath, and Nyer (1999), and Giese and Cote (1999) disagree whether emotion has a role in satisfaction judgments. Additional evidence of the role of affect in satisfaction judgments was obtained in studies that included both cognitive and affective dimensions (Oliver 1993; Oliver, Rust, and Varki 1997). In the former effort expectancy disconfirmation had the most explanatory power; but affect in the form of joy contributed to the explanatory power of his model. The latter effort found a limited role for customer delight in explaining customer satisfaction.

There is a strong consensus in the literature that satisfaction and loyalty are positively related. All of

the studies identified in the literature for this review confirm this notion (Alonso 2000; Bolton 1998; Dube and Maute 1998; Lervik and Johnson 2000; Oliva, Oliver, and MacMillan 1992; Selnes 1993). However, also recall that satisfaction is a necessary but not entirely sufficient condition to cause loyalty, customer retention, and/or repeat patronage (Oliver 1999). Hence the focus of this research is on loyalty, not satisfaction.

Richard L. Oliver has proposed two yet untested frameworks of customer loyalty. The first (1997) is called the cognition to action (CTA) loyalty model; the CTA describes loyalty as existing on four levels of increasing strength. Incremental increases in loyalty occur in the transition from cognitive (information-based) loyalty to affective (attitude-based) loyalty cumulatively, further increasing as conative (desire-based) loyalty is combined with and transcends affective loyalty. The ultimate loyalty state is action-based loyalty. Oliver (1999) also proposes a second loyalty framework, the fortitude-community (F-C) loyalty model. Fortitude refers to the extent to which a consumer does not pay attention to the promotion of products that compete with the one to which one is loyal; low fortitude consumers tend to pay more attention to advertisements and discounted pricing of products.

Oliver defines community as the extent to which a consumer believes that the consumption of a product to which he is loyal makes him different from people who do not use the product (Oliver 1999 [p.39]). Consumers who do not identify themselves with other consumers of a product either have no sense of community or at best a weak link with fellow users of the product. These individuals are not a part of a social support network; they do not reinforce their loyalty or commitment to the product. Consumers who strongly identify themselves with fellow consumers incorporate a degree of camaraderie into their consumption. These individuals are less likely to switch to another brand because they forfeit the social bonds formed with their friends in the community.

It may also be possible to instill a sense of community among consumers of a product or service through a firm's web site. Two means of doing so are to enhance feelings of connectedness among customers, and to encourage communication and socialization among one another. A firm seeking to promote a sense of community among its customers should provide a compelling reason for them to return to the site frequently.

This review of the customer satisfaction and loyalty literature provides a foundation for identification of the variables that comprise the constructs of the CTA and F-C loyalty models tested in this research. Specifically the

cognitive and affective measures of satisfaction form the basis for the identification of variables for the cognitive and affective loyalty constructs see Tables 2.1 and 2.2). The same is true of the conative path in Bagozzi's (1993) model of purposeful behavior, which is the foundation for conative loyalty. Similarly, hard core and reinforcing loyalty (Yim and Kannan 1999) form the conceptual foundations of action loyalty. The concept of fortitude loyalty is supported by Fournier's (1998) study of the relationships between consumers and products that are crucial to the maintenance of their self-image. The foundations of community loyalty are derived from the research of Friedman et al. (1993) and Putnam (2000). Lastly, support for the notion of virtual community loyalty is found in the research enumerated in Table 2.6.

CHAPTER III

RESEARCH MODEL

Both the CTA and F-C loyalty models specify that cognitive and affective factors influence customer satisfaction (Oliver 1997; Oliver 1993). They are included in the CTA framework as a reminder that cognition and affect not only influence customer satisfaction but also describe loyalty behavior. Cognition and affect are also included in the F-C model to account for their influence on customer satisfaction.

The literature suggests the manner in which the two loyalty models can be empirically tested to confirm and compare the inferred relationships between satisfaction and loyalty. Each is the unique portion of two models of consumer satisfaction and loyalty. One is the CTA loyalty framework (see Figure 1.1). Satisfaction is related to loyalty in the context of the CTA loyalty model. The other is the F-C loyalty model (see Figure 1.2). Here, as well, satisfaction is related to loyalty.

In studies of the relationship between satisfaction and loyalty, the results have been unanimous (Alonso 2000; Bolton 1998; Dube and Maute 1998; Lervik and Johnson 2000

Oliva, Oliver, and MacMillan 1992; Selnes 1993) in finding a positive relationship between the two constructs. Therefore, the expectation is

H_1: Customer satisfaction is positively related to customer loyalty.

Oliver (1999) and this research argue that loyalty can be explained by two different models. Although these two explanations share similarities, the models are potential competitors in providing the more robust explanation. To test both frameworks the satisfaction data must be tested separately against each loyalty model. Doing so determines whether either one of them is a valid representation of the loyalty framework.

The CTA Loyalty Model

The CTA loyalty model (see Figure 1.1) proposed by Oliver (1997) argues that loyalty can be described in four different states of consumer vulnerability to defection due to promotional appeals of competing products or a lack of consumer commitment to the product as a sole source. Each loyalty state, from cognitive to action loyalty, is differentiated by the extent to which the consumer is faithful to one branded product. Hence, cognitive loyalty involves less consideration of a branded product's virtues than affective loyalty. Conative loyalty is stronger than affective loyalty in that the consumer has a deeply held desire (or motivation) to repurchase. And action loyalty

is stronger than conative loyalty in that the consumer will overcome obstacles to consume the branded product to which he is loyal; loyalty at this stage is nearly unshakable. Thus, based on the proposed CTA loyalty model

H_{1a}: There is a positive relationship between satisfaction and cognitive loyalty.

H_{1b}: There is a positive relationship between cognitive loyalty and affective loyalty.

H_{1c}: There is a positive relationship between affective loyalty and conative loyalty.

H_{1d}: There is a positive relationship between conative loyalty and action loyalty.

The CTA loyalty model in Figure 1.3 as described by H_{1a} through H_{1d} is testable via structural equation modeling. Figure 1.4 depicts a relationship between four groups of composite loyalty scores in which the strength of customer loyalty is highest for customers who have high scores for action, conative, affect, and cognitive measures, and there are correspondingly lower composite loyalty scores for groups with low action loyalty measures, and high scores for conative, affect, and cognitive loyalty scores.

The F-C Loyalty Model

The F-C model is composed of low and high conditions of the fortitude and community constructs. High fortitude consumers are different from low fortitude consumers in that they are more prone to ignore or attenuate the promotional appeals of competing branded products to which they are loyal (Oliver 1997). High fortitude consumers do

so with idealized perceptions (similar to Murray et al. 1996) of the product, pay little or no attention (similar to Miller 1997) to promotional offers to switch to a competitor, find competing products less attractive than the one they use (Ping 1994), and have used the product longer than low-fortitude consumers (Sambandam and Lord 1995). These individuals lack any curiosity regarding the features and benefits of competing brands (Raju 1980). Consumers who form a relationship with products invest passion (or love), a self-connection, interdependence, intimacy with it, and a commitment to the brand. Thus, based on the F-C perspective

H_2: There is a positive relationship between action loyalty and consumer fortitude.

H_2 is testable using a product adoration, information-shunning scale composed of items adapted from Ping (1994) and Raju (1980).

Consumers are also expected to exhibit a low or high sense of community. The literature suggests that ownership by an extended family (or at least ownership and the perception of an extended family) could be associated with a feeling of kinship, or community (Lamoreaux 1986). The same is true of people who share common pursuits (such as MBA students), who tend to think of themselves as having consumption habits that are similar to their peers and believe that they are members of a consumption community

(Friedman, Abeele, and De Vos 1993). A sense of friendship between a service provider and customer may arise from idle conversation during the encounter and in relationships that require the customer to disclose personal information (Goodwin 1996). This is due to the fact that willingness to provide information about one's self requires a degree of trust that need not otherwise be necessary. And strong, close business relationships require commitment, trust, cooperation, and social bonds (Wilson 1995) that are logically associated with a sense of community or camaraderie. Thus,

H_3: There is a positive relationship between action loyalty and a sense of community.

H_3 is testable by adapting items from the social capital index (Putnam 2000) and the work of Fournier (1998), Friedman et al. (1993), and Goodwin (1996). An important implication of H_3 is that community loyalty is thought to be rarely achieved (Oliver 1999). Hence, if consumers of a branded product or patrons of a service firm do not believe that they are members of a community of the firm's customers, H_3 can not be tested.

CHAPTER IV

FIRST PILOT STUDY:

BUSINESS ADMINISTRATION STUDENTS

Questionnaire Design

A pilot study was designed to begin testing the hypotheses introduced in Chapter III. The pilot study questionnaire was composed of four parts (see Appendix A). It is designed to generate information on demographics, satisfaction, loyalty, and web site usage in the context of the respondent's relationship with his or her financial services provider.

The questionnaire begins with demographic information for comparing the respondents with the population (age, gender, number of years with their financial services provider, zip code, and types of financial services they use). Respondents were asked to specify the type and name of their primary financial services provider. Hence responses for up to four different types of financial services providers (banks, credit unions, savings and loans, and securities firms) and any number of individual institutions were obtained. Next were 17 customer satisfaction items in the five-point disagree-agree format

recommended by Oliver (1997); The questions themselves are also in a form recommended by Oliver.

Following the satisfaction items was a six-part customer loyalty questionnaire, also in a five point, disagree-agree format. Part one addressed cognitive loyalty behavior, as discussed in Oliver (1997); questions addressed respondent response to interest rates and activity charges for loans and deposit accounts, as well as qualitative aspects of the customer-institution relationship. Next were the affective loyalty items, with questions adapted from Oliver (1997), Bloemer et al. (1998), and Mittal and Lee (1989). The focus was on the overall feelings of the respondent toward their primary financial services provider. Conative loyalty was measured in part three, using questions adapted from the same three sources used in the affective loyalty section; these questions addressed respondent commitment to continue the relationship. The conative items were followed by the action loyalty scale. These items were adapted from Oliver (1997) and Raju (1980). Action loyalty measured the susceptibility of the respondent to obtain information from competing institutions, which increased the possibility that a respondent would switch financial institutions. Part five measured fortitude; the questionnaire items were adapted from Raju (1980) and Ping (1994). Fortitude is similar to action loyalty in that information-seeking

tendencies are addressed, but is different from action loyalty in that product adoration is measured. Lastly, the concept of community was evaluated by items adapted from Putnam (2000), Fournier (1998), Friedman and his colleagues (1993), and Goodwin (1996). Community sentiments reflect the relationship between the respondent and his/her fellow customers. Thus community goes beyond a transactional relationship between the respondent and the institution (i.e., traditional marketing), an ongoing relationship with closer cooperation between the respondent and the firm (i.e., relationship marketing), and the relationship between the respondent and the brand (the product adoration aspect of fortitude). A five-point format was also used for the fortitude and community portions of the questionnaire as recommended by Oliver (1997), and to maintain a consistent response format. Doing so simplified analysis of the data.

The last loyalty scale was composed of exploratory items measuring subjects' usage of web sites maintained by financial institutions, their intention to use financial institution web sites, and preferences regarding information available on such sites. Questions regarding customer preferences attempted to determine the extent to which the respondent wanted to involve herself in the financial services provider's web site. Among the high-involvement features of some web sites are auctions

(ebay.com), reverse auctions (pncbank.com), user contributions to website content (fool.com, excite.com, iVillage.com), and ongoing conversations with other members of the virtual community (excite.com, gay.com, arsenal.co.uk).

The overall design of the questionnaire reflected a desire to reduce the likelihood of halo effects (Garbarino and Johnson 1999). This was accomplished by grouping questionnaire items by construct and using reverse and forward scored items within all but the last two constructs.

College of Business Undergraduates Study

The questionnaire was administered to 169 students enrolled in undergraduate business administration courses at a university in the Southern United States; questionnaires were completed during regular class meetings. Eighty percent (136) of the respondents provided responses to all of the items. The incomplete questionnaires were not analyzed owing to the necessity of using only complete cases to obtain dependable calculations of coefficient alpha, correlation analysis, exploratory factor analysis, and confirmatory factor analysis. An examination of the partially completed questionnaires was conducted to determine patterns of nonresponse. The reasons for not answering specific questions were probably respondent impatience due to instrument length, and a lack

of willingness to respond (students were not given the option of refusing to fill out the questionnaire). A few respondents did not answer questions regarding financial services with which they were unfamiliar. There were only a few questions regarding the format and wording of the instrument. At least one pilot study of bank customer satisfaction and retention has been conducted with approximately the same number of respondents (Rust and Zahorik 1993, n = 100).

The quantitative analysis of responses was confined to the hypothesized constructs. The variables were first examined for deviation from normal distribution. Measures of central tendency, frequency distribution of responses, and skew and kurtosis statistics were examined. Deviations of the distributions of responses from normality were within allowable bounds for the statistical methods to be employed (Bagozzi and Baumgartner 1994; Kline 1998).

Reliability Analysis

Next, the hypothesized constructs were tested to determine their reliability. Coefficient alphas were calculated for each construct (see Table 4). Initial calculations yielded values of 0.9566 (satisfaction), 0.8661 (affective loyalty), 0.8498 (virtual community loyalty), 0.8177 (cognitive loyalty), 0.7683 (community loyalty), 0.7029 (action loyalty), 0.6995 (conative loyalty), and 0.6878 (fortitude). The items of the

satisfaction construct were theoretically so robust that deleting nine of them resulted in virtually no change in coefficient alpha (0.9538). Three items of the affective loyalty scale detracted from the construct's reliability; deleting them increased alpha to 0.8936. Elimination of two unreliable cognitive loyalty items increased alpha to 0.8262. Reliability of the community loyalty scale increased to 0.7962 when four items were deleted. Two problematic conative loyalty questions were dropped, resulting in an increase in alpha to 0.8301. And when four fortitude loyalty items were deleted, alpha increased to 0.7121 These results were consistent with the theoretical development of each of the constructs: satisfaction has been thoroughly researched for many years, but less work has been done on conative, action, fortitude, and community loyalty constructs. One author has suggested that coefficients alpha of less than 0.70 are rated as "inadequate," values above 0.70 are "adequate," those above 0.80 are termed "very good," and values above 0.90 are considered "excellent" (Kline 1998). At this stage in instrument development scale refinement as well as reduction was necessary. Alphas were recalculated as instrument parsimony was achieved through criterion validity and construct validity testing.

Criterion Validity Analysis

The CTA and F-C loyalty models assert that there is a positive relationship between customer satisfaction and the loyalty constructs. Per Spector (1992), any of the variables of the loyalty constructs that do not correlate significantly with satisfaction variables are not valid, and should be deleted. The results of the correlation analysis were somewhat similar to those of the reliability tests. Results for affective and conative loyalty were excellent: all correlations were statistically highly significant for at least $p < 0.009$ and $p < 0.001$, respectively.

Attaining criterion validity for the cognitive, community, virtual community, and fortitude constructs was more problematic. Deletion of three invalid cognitive loyalty items achieved excellent criterion validity, with all correlations significant at $p < 0.002$, while decreasing reliability slightly with alpha recalculated at 0.7970. The fortitude scale did not significantly correlate with the satisfaction scale. However the fortitude scale is conceptually very similar to the action loyalty scale (Oliver 1999), causing him to speculate regarding the degree of overlap between the two. The exploratory nature of both the action and fortitude loyalty constructs also means that they may actually be more similar than different. This possibility was explored by merging the

product adoration portion of the fortitude scale with the action scale, which had been found to have two insignificant correlations ($p > 0.05$), and five correlations significant between $p > 0.01$ and $p < 0.05$. The result was a six item action-product adoration loyalty scale with all correlations significant for $p < 0.002$. The coefficient alpha score for the new scale was 0.8189, signifying more reliability for the action-product adoration scale than either the action or fortitude loyalty scale. No evidence of criterion validity was found for either the community or virtual community scales. Since both of them are exploratory attempts to measure the same construct, I merged the two scales into a single community-virtual community scale. The result was a scale with approximately the same reliability (alpha score of 0.7964) and fairly good criterion validity (14 correlations significant at $p < 0.01$ and 14 correlations significant between $p > 0.01$ and $p < 0.05$).

Factor Analysis

Results of the reliability and criterion validity analyses indicated that the more theoretically robust constructs (cognitive, affective, and conative loyalty, and satisfaction) were amenable to confirmatory analysis. The exploratory constructs (action-product adoration loyalty and community-virtual community loyalty) were amenable to

exploratory factor analysis. Confirmatory factor analysis yielded eight variables in the satisfaction construct, three variables in the cognitive loyalty construct, seven variables in the affective construct, and three conative loyalty variables. Exploratory factor analysis followed by confirmatory factor analysis of the action-product adoration (fortitude) loyalty yielded a construct composed of one product adoration variable and two fortitude items. Most of the community and virtual community variables failed to fit within the community-virtual community loyalty factor that formed around three community and two virtual community items.

Hybrid Model Analysis

Finally, structural analysis of the satisfaction and loyalty constructs was conducted. The variables for all of the constructs survived this stage except for those in the community-virtual community construct. Two virtual community items and one community variable were dropped, while two community variables were retained. Initial model fit was very poor; the literature was consulted to determine likely inter-relationships of variables between constructs and variables within constructs. First, note that the satisfaction and loyalty constructs in general are positively related, and hence the observed variables inter-related. Action and fortitude loyalty variables are known to be highly inter-related conceptually (Oliver 1997;

Oliver 1999), thus the resulting merger of the two constructs. The same literature also suggests that there is a degree of overlap between the cognitive, affective, and conative loyalty constructs. This indicates that the modification indices should be consulted to determine the exact nature of these inter-relationships. Doing so dramatically improved model fit: initial fit statistics were Chi-square = 590.565 (316df), p = 0.000 (Chi-square/df = 1.869; GFI = 0.75; NFI = 0.829; IFI = 0.912; TLI = 0.902; CFI = 0.911; RMSEA = 0.08). After covariances between variables were accounted for, model fit statistics were Chi-square = 400.712 (301df), p = 0.000 (Chi-square/df = 1.331; GFI = 0.822; NFI = 0.884; IFI = 0.968; TLI = 0.963; CFI = 0.968; RMSEA = 0.05).

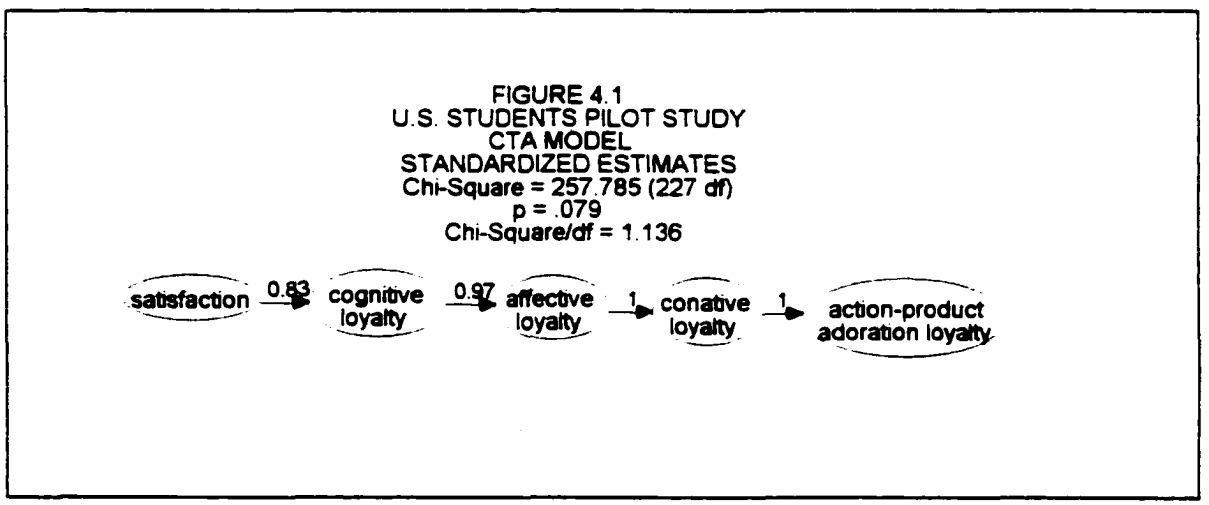
Because the full structural model is large and the inter-relationships are somewhat complex, reduced forms of the structural model were analyzed. First, the community loyalty construct was dropped and fit statistics were recalculated. Modification indices were consulted as before. Model fit improved somewhat, with Chi-square = 257.785 (227df), p = 0.079 (Chi-square/df = 1.136; GFI = 0.868; NFI = 0.914; IFI = 0.989; TLI = 0.986; CFI = 0.989; RMSEA = 0.032). Next the action-product adoration loyalty construct was dropped from the structural model; thus, satisfaction and three loyalty constructs remained. Model fit improved again: Chi-square = 180.185 (167df), p = 0.230

(Chi-square/df = 1.079; GFI = 0.890; NFI = 0.930; IFI = 0.995; TLI = 0.993; CFI = 0.994; RMSEA = 0.024). Lastly, a modified version of the F-C structural model was run (the fortitude construct was replaced by action-product adoration loyalty). Model fit was not as good as the satisfaction-three loyalty construct model, but somewhat better than the full model: Chi-square = 92.353 (65df), p = 0.015 (Chi-square/df = 1.421; GFI = 0.914; NFI = 0.944; IFI = 0.983; TLI = 0.976; CFI = 0.983; RMSEA = 0.056). These results should be interpreted with some caution, because the constructs that were deleted in the second and third models are the less developed, less rigorous loyalty factors. The improved fit statistics are also due in part to a higher concentration of more rigorous loyalty measures. The relationship between satisfaction and the loyalty constructs in the fourth model is different than that in the full model. The change in the paths between the three factors may account for some of the improvement in model fit. Since the purpose of the pilot study is limited to verifying model reliability and validity, Chi-square difference tests were not performed. Such calculations are reserved for the mall patrons and cross-cultural student surveys to be discussed later.

Results

Important information was obtained from this limited study. First, the constructs described by Oliver (1997;

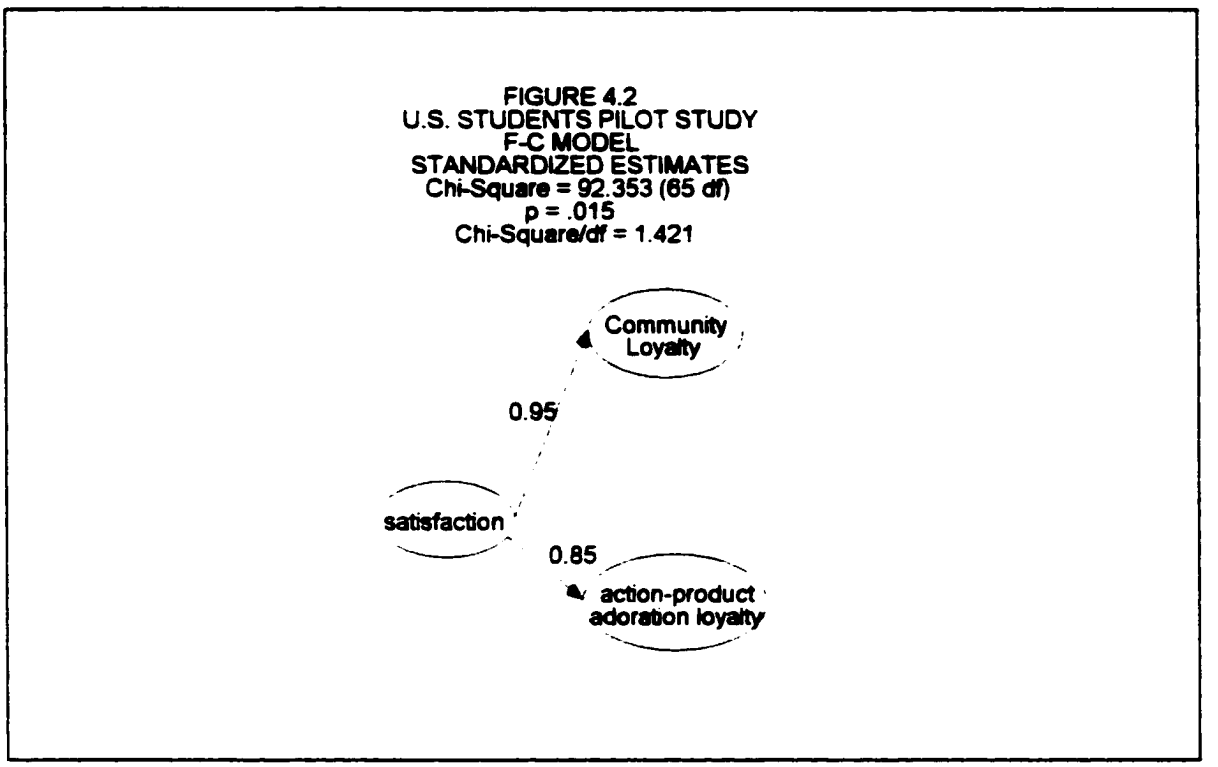
1999) have substantially been found to be reliable and valid. An important exception to his model is that action loyalty and product adoration (fortitude) loyalty appear to be one construct. Second, the community construct remains a weak candidate for describing customer loyalty; this problem remains in spite of an effort to include a virtual dimension of community spirit that some scholars believe is found on the Internet. Recall, however, that this finding verifies the difficulties previously encountered in the measurement of community (Friedman et al. 1993; Putnam 2000). Oliver (1999) asserted that community loyalty may



be possible only under severely limited circumstances. Thus, the results of the pilot study indicate that the CTA model is better described by Figure 4.1, which depicts the influence of satisfaction on cognitive loyalty, the impact of cognitive loyalty on affective loyalty, the effect of

affective loyalty on conative loyalty, and the influence of conative loyalty on the new action-product adoration loyalty construct. A figure detailing the covariances among variables in the model is found in Appendix D. The F-C model is better described by Figure 4.2, depicting the affect of satisfaction on both community loyalty and action-product adoration loyalty (see Appendix E for a figure detailing the covariances among the variables). There are limitations to the usefulness of this initial effort. The outcome of the first pilot study is probably influenced by the composition of the sample, which was exclusively composed of students. More than 73 percent of the respondents were between the ages of 18 and 25, and less than 24 percent were between 26 and 35 years of age (the remainder were 36 or older). Since the vast majority of the participants had the opportunity to conduct their own financial affairs for seven years or less, the corresponding opportunity to build long-term relationships with their financial services provider have been somewhat limited. Thus, these results are limited to construct and theory-building, and are not generalizable to financial services clientele. Nonetheless this initial effort determined the reliability and validity of the CTA and F-C loyalty models. It also confirmed the notion that action, fortitude, and community loyalty are very difficult to achieve, and prepared this research for larger surveys of

more heterogeneous sample frames. Next, a second pilot study of credit union members was conducted, employing an abridged version of the original questionnaire.



CHAPTER V

SECOND PILOT STUDY:

CREDIT UNION MEMBERS SURVEY

The first effort to obtain external validation of the results of the first pilot study was a survey of credit union members. Doing so provides access to a sample frame representative of all adult age groups, an important advantage over surveys of intact university class sections. A survey of a credit union's membership also provides a group that is heterogeneous with respect to the length of time with which individuals have transacted business, addressing another limitation of the first pilot study.

The credit union members survey also asked participants to identify their primary financial services provider by name and type. Hence this was not a study of the relationship between members and their credit union. Rather it addressed the relationship between the respondent and the provider most important to them.

Sample Frame

Nonetheless, one aspect of credit union membership makes it a better sample frame than the customers of a bank or securities firm. The ability to open an account at a

credit union is based upon the common bond principle. The credit union's membership is primarily composed of employees of the United States government in two south Texas counties, and employees of numerous private sector businesses and professional groups. Relatives of these individuals are also eligible for membership, and in fact, a review of the credit union's records determined that the largest affiliation group (about half of the membership) is of the category "relative of member." Thus, every credit union member knows one or more other credit union member. This is important in a study of community loyalty.

The wide range of occupations and professions that comprise the surveyed credit union's membership suggests that there is a degree of bridging social capital (Putnam 2000) among this community of consumers. Additional evidence of social capital is found in the large percentage (42.5) of members between ages 36 and 55, as well as the percentage over the age of 55 (17.8); Putnam noted that these age groups are more likely to be civic-minded and community-oriented. Specific evidence of bridging social capital is found in the altruistic member-owner nature of credit unions: each member owns an equal, undivided share in the institution. Hence there is no means by which a member can extract the accumulated increase in the capital of the credit union in the manner that a bank or securities firm shareholder would be able to do so. Members can only

access the privileges of ownership by taking advantage of credit union services that are more competitively priced than those of other types of financial services providers.

Because much of the appeal of credit union membership is low-cost checking accounts and loans, a large number of credit union members might be superficially loyal. Credit unions as a class may attract a disproportionate numbers of people who conduct business with them only to minimize the cost and maximize the income obtained from their relationship with the institution. Additional evidence of cognitive loyalty of the membership is the group of individuals who joined in the process of purchasing an automobile and financing it through an automobile dealer in the credit union's trade area. Many of these members joined the credit union in the last seven years for the sole purpose of obtaining a low monthly car loan payment, and may have little or no perception of community membership. Hence this sample frame is a fair test of the CTA and F-C loyalty models, and overcomes the lack of heterogeneity encountered in the first pilot study.

Survey Design

To survey the credit union's members anonymously the survey was distributed via the mail. This meant that the original 105 item questionnaire could not be used for a number of reasons. First, most people do not respond to mail questionnaires, regardless of length; long

questionnaires discourage response even more so. Second, postage is expensive, and long questionnaires are more expensive to mail than short questionnaires. Third, a large number of the questionnaire items from the literature that were adapted to the study of loyalty toward financial service providers were irrelevant. And lastly, the credit union sponsoring the study wanted the questionnaire to be as short as possible. Thus, the original questionnaire was abridged to contain only those variables that survived data analysis (see Appendix B).

Participation was encouraged in three ways. A cover letter assured recipients that their anonymity would be respected and preserved, a one dollar bill was enclosed as a token of gratitude for participation, and a postage-paid reply envelope with a blind address was provided.

Analysis of the Data

One superior aspect of this sample frame is that the credit union continuously updates its address records, minimizing the number of questionnaires that are sent to incorrect addresses. Of the 1200 letters mailed, only nine were returned as undeliverable. There were 252 (21.0 percent of total) questionnaires returned by respondents. Twenty-two of the forms were blank, and the one dollar bill was enclosed. Thirty-five questionnaires were partially complete (the mailing service had not sent out complete questionnaires to all of the members who had been

surveyed). Other respondents had clearly lost patience in answering the 38 questions on the form. There were 195 questionnaires on which all of the items representing the constructs were answered, for a net response rate of 16.3%. With respect to the nonrespondents all that can be said is that the vast majority of them were only loyal to the one dollar bill. However, everyone who worked on the study was also surprised that anyone returned the monetary incentive.

Respondent Demographics

As expected, the respondents were heterogeneous in regard to their primary financial services provider. Of the 195 forms analyzed, 73 participants identified a bank as such, while 121 designated a credit union, and only 91 of them specified the credit union that sponsored the study. None of the forms indicated that a savings and loan or securities firm as the primary financial services provider. Thus, a majority of the responding members answered the questionnaire in the context of their relationship with a financial institution other than the sponsor.

Greater heterogeneity was also obtained in regard to the duration of the relationship between the respondents and their financial services provider. The largest group (45.6 percent) said that they had been with that institution for more than 10 years. Slightly over 25 percent specified a relationship between six and 10 years,

and nearly 17 percent indicated that they had been with their provider between three and five years.

Another limitation of the first pilot study was a lack of heterogeneity in regard to age. Among the respondents of the credit union study, the largest group (48.3 percent) was between the ages of 36 and 55, followed by the 26 and 35 and 56 to 65 age groups (17.4% each). Only 7.2 percent of respondents indicated that they were between 18 and 25.

Participation by women (48.7%) was nearly as great as that by men. While the vast majority of respondents (85.6 percent) live within the credit union's four county trade area, a number of participants (10.8 percent) do not. The remainder did not want to reveal their zip code.

Reliability Analysis

A printing error that was discovered after the questionnaires were mailed out meant that the eight variable satisfaction construct became a seven variable construct. This omission did not detract from scale reliability, as a coefficient alpha of 0.9762 was obtained. This was slightly higher than that obtained in the first pilot study. Coefficient alpha was higher not only for the satisfaction scale, but also for all of the loyalty scales as well. All values are representative of or better than alphas reported in the literature.

Criterion Validity Analysis

All correlations of all loyalty scales with the criterion satisfaction scale were statistically highly significant ($p = 0.000$). These results were somewhat better than those obtained in the first pilot study.

Table 5.1

Scale Analysis Comparison

	Reliability			Criterion Validity	
Scale	Student	C.U.	Literature	Student	C.U.
Satisfaction	.954	.98	.98-.75	N/A	N/A
Cognitive L.	.797	.86	.97-.72	$p<0.002$	$p=0.000$
Affective L.	.894	.94	.84-.78	$p<0.009$	$p=0.000$
Conative L.	.830	.87	.76	$p<0.001$	$p=0.000$
Action-Product					
Adoration L.	.819	.87	.84-.70	$p<0.002$	$p=0.000$
Community L.	.796	.85	N/A	$p<0.05$	$p=0.000$

Exploratory Factor Analysis

Exploratory factor analysis was conducted to verify that the results of the credit union survey were substantially similar to those of the first pilot study.

Table 5.2

Exploratory Factor Analysis Comparison

Scale	Student	C.U.
Satisfaction	.92-.82	.97-.91
Cognitive Loyalty	.87-.76	.90-.86
Affective Loyalty	.82-.66	.89-.78
Conative Loyalty	.89-.82	.91-.86
Action-Product		
Adoration Loyalty	.85-.82	.92-.89
Community Loyalty	.70-.59	.93

All factor loadings obtained from credit union members were somewhat higher than those in the prior effort. All factor loadings in both studies were quite high. Thus there emerges a pattern of increased reliability, criterion validity, and construct validity in the credit union study relative to that obtained in the first pilot study.

Confirmatory Factor Analysis

Fit statistics for the constructs were uniformly lower than those obtained in the first pilot (students) study (see Table 5.3). This was particularly true of the chi-square/degrees of freedom ratio and *p* values, indicating that the larger number of respondents in the credit union

Table 5.3

Measurement Model Comparison

Construct	Chi-Sq/df	*p*	GFI	NFI	CFI	AGFI	RMSEA
Satisfaction							
Students	1.816	0.014	0.937	0.965	0.984	0.886	0.078
Cr.Union	2.872	0.003	0.967	0.989	0.993	0.886	0.098
Cognitive L.							
Students	N/A	N/A	1.000	1.000	1.000	N/A	N/A
Cr.Union	N/A	N/A	1.000	1.000	1.000	N/A	N/A
Affective L.							
Students	0.885	0.537	0.984	0.986	1.000	0.950	0.000
Cr.Union	2.409	0.010	0.970	0.983	0.990	0.907	0.085
Conative L.							
Students	N/A	N/A	N/A	1.000	1.000	N/A	N/A
Cr.Union	N/A	N/A	N/A	1.000	1.000	N/A	N/A
Action-Product							
Adoration L.							
Students	N/A	N/A	N/A	1.000	1.000	N/A	N/A
Cr.Union	N/A	N/A	N/A	1.000	1.000	N/A	N/A
Community L.							
Students	N/A	N/A	N/A	1.000	1.000	N/A	N/A
Cr.Union	N/A	N/A	N/A	N/A	N/A	N/A	N/A

members survey accounted for the differences. The cognitive, conative, action-product adoration, and community loyalty constructs were composed of three variables; thus, they were saturated models. The community loyalty construct in the credit union members survey was a construct composed of two variables, and hence, a

Table 5.4

Construct Reliability and Variance Extracted

	Reliability		Variance Extracted	
Construct	Students	C.U.	Students	C.U.
Satisfaction	0.944	0.964	0.682	0.795
Cognitive L.	0.722	0.750	0.467	0.503
Affective L.	0.827	0.875	0.439	0.515
Conative L.	0.716	0.764	0.462	0.525
Action-Product Adoration L.	0.797	0.756	0.598	0.510
Community L.	0.513	N/A	0.267	N/A

measurement model could not be analyzed. Finally, construct reliability and variance extracted statistics were calculated for the constructs of the two studies. Generally the results of the credit union members survey were more robust than those of the first pilot study,

consistent with the results of the reliability analysis discussed above.

Hybrid Model Analysis

Analysis of the structural model proceeds as follows: first, the full model is examined, then the CTA loyalty model with the action-product adoration construct, next the satisfaction-conative loyalty model is examined, followed by the F-C loyalty model with the action-product adoration construct. Analysis begins with the full model to confirm or refute the configuration of the full model obtained in the first pilot study. Model configuration was substantially confirmed. Initial fit statistics were poor, also confirming the outcome of the prior effort. As was discussed in the first pilot study, Oliver (1999) discussed at length the close relationship between the loyalty variables in his two frameworks; hence consultation of the modification indices were necessary to account for the overlaps between constructs. The resulting fit statistics for the full model improved considerably, but were less favorable than those obtained in the prior effort (see Table 5.5). This was the case with the chi-square/degrees of freedom ratio as well as the other fit indices.

Next, the CTA five factor loyalty model was analyzed (see Figure 5.2). This model included the action-product adoration construct that was the successor to the action loyalty scale. The smaller model yielded stronger fit

Table 5.5

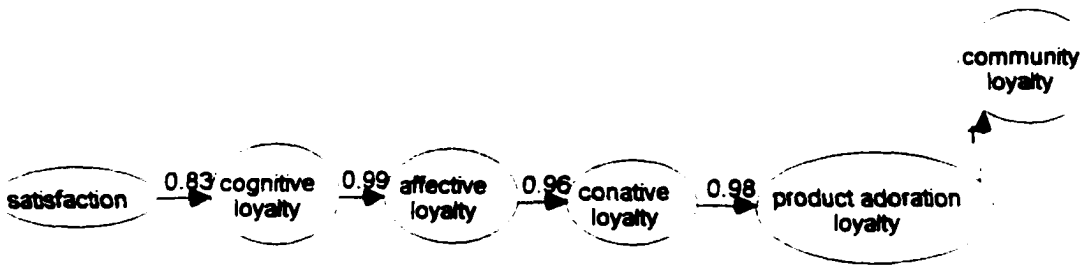
Structural Model Data Comparison

Construct	Chi-Sq/df	*p*	GFI	NFI	CFI	AGFI	RMSEA
Full Model							
Students	1.331	0.000	0.822	0.884	0.968	0.776	0.050
Cr.Union	2.761	0.000	0.775	0.891	0.927	0.709	0.095
CTA 5							
Students	1.136	0.079	0.868	0.914	0.989	0.826	0.032
Cr.Union	1.996	0.000	0.866	0.935	0.966	0.802	0.072
CTA 4							
Students	1.079	0.230	0.890	0.930	0.994	0.847	0.024
Cr.Union	2.028	0.000	0.861	0.942	0.970	0.822	0.073
F-C							
Students	1.421	0.015	0.914	0.944	0.983	0.861	0.056
Cr.Union	2.507	0.000	0.926	0.969	0.981	0.851	0.088

statistics than the full model and GFI, NFI, CFI, AGFI, and RMSEA statistics that were nearly as good as the pilot (students) study, but there was little improvement in the chi-square/degrees of freedom ratio relative to the pilot study.

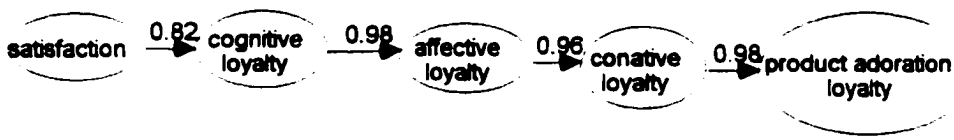
Following the same format as the analysis of the first pilot study, the CTA four factor model was then examined to Evaluate the relationships between satisfaction, cognitive

FIGURE 5.1
HYBRID MODEL
CREDIT UNION MEMBERS SURVEY
FULL MODEL
STANDARDIZED ESTIMATES
Chi-Square = 692.947 (251 df)
p = .000
Chi-Square/df = 2.761



loyalty, affective loyalty, and conative loyalty (see Figure 5.3). Doing so enables an evaluation of the contribution of the action-product adoration loyalty construct, as well as a comparison with the F-C loyalty model, which necessarily includes the action-product adoration loyalty construct. It also anticipates any argument that the action-product adoration construct is soley a measure of fortitude. While the chi-square/degrees of freedom ratio of the CTA four factor model is less favorable than the larger CTA five factor model, there is a small improvement in the other fit statistics. All fit statistics for the CTA four factor model were similar to

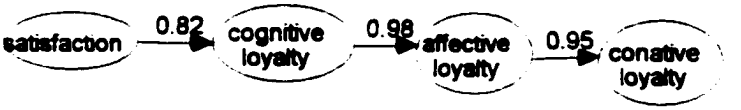
FIGURE 5.2
HYBRID MODEL
CREDIT UNION MEMBERS SURVEY
CTA 5 FACTOR MODEL
STANDARDIZED ESTIMATES
Chi-Square = 373.295 (187 df)
p = .000
Chi-Square/df = 1.996



those obtained in the pilot study except for the chi-square/degrees of freedor ratio.

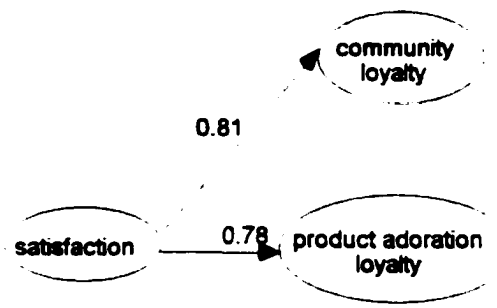
Lastly the F-C loyalty model was evaluated (see Figure 5.4). Results were very similar to those of the CTA four factor model. The chi-square/degrees of freedom ratio was not only substantially higher than that obtained in the first pilot study, but also the larger credit union survey model. Note, however, that the GFI, NFI, CFI, and AGFI statistics are very close to those obtained in the prior study, and are better than those obtained in the CTA four factor model.

FIGURE 5.3
HYBRID MODEL
CREDIT UNION MEMBERS SURVEY
CTA 4 FACTOR MODEL
STANDARDIZED MODEL
Chi-Square = 283.948 (140 df)
p = .000
Chi-Square/df = 2.028



The pattern that emerges from the analysis of the fit statistics of the models of the two studies is that the CTA five- and four-factor models are better explanations of the relationships between satisfaction and loyalty than the full model. In both studies the F-C loyalty model is also a better explanation than the full model. As was explained in the discussion of the first pilot study, chi-square difference tests were premature due to the small number of respondents relative to the larger number of variables and constructs. Chi-square difference tests of the models obtained in the credit union members survey are likewise premature because the latter effort is merely an extension

FIGURE 5.4
HYBRID MODEL
CREDIT UNION MEMBERS SURVEY
F-C MODEL
STANDARDIZED ESTIMATES
Chi-Square = 97.771 (39 df)
p = .000
Chi-Square/df = 2.507



of the former study. Chi-square difference tests are more appropriate in a test of the complete questionnaire and number of respondents similar to those in the credit union members survey Chi-square difference tests between the models of the two studies are not appropriate because there are almost one and a half times the number of respondents in the credit union members survey as the first pilot study. Since the chi-square statistic is very sensitive to the number of respondents, such tests would mostly verify that difference.

Results

This second pilot study contributes important information to the study of the CTA and F-C loyalty models. First, the credit union members survey confirms the findings of the first pilot study: that the constructs described by Oliver (1997; 1999) have substantially been found to be reliable and valid. Second, the second pilot study confirms the weak candidacy of the community construct for describing community loyalty. However, this finding confirms the difficulties previously encountered in the measurement of community (Friedman et al. 1993; Putnam 2000), and also confirms Oliver's (1999) belief that community loyalty may be possible only under severely limited circumstances.

This second pilot study also addresses limitations of the first pilot study. First, the credit union members study surveys a sample frame that is more representative of the adult population in age. More than 73 percent of the participants in the first pilot study were between the ages of 18 and 25. In the second pilot study 83 percent of the respondents were between the ages of 26 and 65, while only seven percent were in the 18 to 25 age group. Thus the credit union members surveyed had considerably more experience in dealing with financial service providers than the students in the first pilot study. This was borne out in the longevity of their relationship with their primary

financial services provider: 71 percent of the credit union members surveyed had been transacting business with their primary financial services provider for more than five years. Thus a modest degree of external validity has been obtained in the credit union members survey.

The principal limitation of the credit union members survey is the questionnaire, which had to be reduced in size to facilitate distribution and administration. Thus, a test of the complete questionnaire among a number of respondents similar to those participating in this second pilot study is necessary, and is addressed next.

CHAPTER VI

MALL PATRONS SURVEY

Introduction

After the pilot studies a survey of mall patrons was conducted to determine the internal validity of the CTA and F-C loyalty models. This effort substantially confirms the CTA and F-C loyalty models.

Two shopping malls in a medium-sized city in the Southern United States were asked to allow the collection of questionnaire forms from their patrons. One of the facilities agreed, and was very cooperative in providing access to its facilities for surveying their customers.

Respondent Characteristics

This study employs a questionnaire with 105 items. As is the case with all long questionnaires, obtaining complete responses is very difficult, as completing the survey form requires between 10 and 15 minutes of a respondent's time. Recognizing this from the outset, incentives were created to encourage participation and submit complete questionnaires by holding a drawing for three prizes. Two hundred twenty-nine questionnaires were obtained after five days' effort of two investigators, of

which 169 were complete and usable. While the goal of this effort was to obtain 200 complete survey forms for structural equation modeling, obtaining that number was hindered because a large proportion of mall patrons were fluent only in Spanish. At this time the mall manager advised the student that he was not permitted to collect additional data on their premises. To obtain more data an additional 31 likely mall patrons were recruited to complete questionnaires. Because some of the respondents of the mall survey were acquaintances of the student, other individuals similar to the acquaintances could be surveyed to complement the data already collected. Hence, an additional 31 respondents were recruited, contributing 25 additional complete questionnaires.

The result was 336 surveys distributed, 260 forms turned in to the investigators (77.4% of the total), and 194 usable questionnaires (57.7% of the total). Usable questionnaires are those on which the respondent has answered all of the questions pertaining to the satisfaction and loyalty constructs. To analyze the 60 incomplete forms, the values for the unanswered questions would have been estimated. Statistical analysis software has methods to do so, but these estimation techniques share a common problem-they make certain assumptions regarding the people who did not complete their forms. The underlying assumption is that the respondents had intended

to answer all of the questions, but that they mistakenly overlooked one or more of them. This precludes the possibility that certain individuals intentionally did not want to answer the questions for one or more reasons, two of which may have been a lack of patience or a refusal to respond. Thus, there is no justification in analyzing the partially complete questionnaires provided by respondents who did not want to fully participate in the study (Kline 1998).

The characteristics of the respondents reflected the kinds of people who had the time and the patience to complete the lengthy questionnaire. Most of the respondents completing the survey were women. There were two reasons for this. First, some of the respondents were employees of stores in the mall, and there were more female than male employees in the stores. Secondly, there were many women accompanied by children and other women in the mall, but few men not accompanied by a woman. Hence there were more women than men in the mall. The age distribution of the respondents was slightly higher in the 18 to 25 group, but participation was also quite good in the 26 to 35 and 36 to 55 age groups. There were only nine people over the age of 55. Participants providing complete questionnaires also have a wide range of experience with their primary financial institution. The largest group of respondents have been with their provider for two to five

Table 6.1

Respondent Demographics

	#	%
Gender		
Women	121	62.4
Men	73	37.6
Total	194	100.0
Age		
18-25	72	37.1
26-35	57	29.4
36-55	55	28.4
56 & Over	9	4.6
Not Specified	1	0.5
Total	194	100.0
Relationship Longevity-Years		
Less Than 1	33	17.0
1-2	49	25.3
2-5	59	30.3
5-10	24	12.4
More Than 10	24	12.4
Not Specified	5	2.6
Total	194	100.0

years, the second largest category for one to two years, followed by those with their provider less than one year. This may have been due to the large number of participants between the ages of 18 and 25. Equal numbers of individuals had been with their provider from five to 10 years and more that 10 years.

Respondents were also asked to disclose their zip code to enable a geographic analysis. The vast majority of individuals who provided usable questionnaires were from the local area (184, or 94.9%), while seven respondents (3.6%) resided outside the local area. Three individuals (1.5%) declined to respond to the question.

Analysis of Data

Analysis proceeded in eight steps. The distribution of the data was examined to determine whether the assumption of normality was violated. Reliability analysis was conducted, followed by determination of criterion validity, then exploratory factor analysis to determine construct validity. This was followed by confirmatory factor analysis, which prepared the constructs for structural analysis. Once confirmatory factor analysis and structural analysis was completed, construct reliability was determined for both the constructs and hybrid model. Lastly, a chi-square difference test was conducted to determine whether the CTA or F-C loyalty model was the superior satisfaction-loyalty model.

Data Distribution Analysis

This study employed 89 questions to test eight constructs. All 89 questions were tested for skewness and kurtosis that would suggest a non-normal distribution of the data. Non-normal distributions could jeopardize use of parametric data analysis techniques commonly employed in quantitative analysis. All variables yielded skewness and kurtosis statistics considered within allowable bounds for the statistical methods to be employed (Bagozzi and Baumgartner 1994; Kline 1998).

Reliability and Validity Testing

The results of reliability, criterion validity, and exploratory factor analysis are summarized in Table 5.2. Initial reliability analysis provides an opportunity to determine whether any questionnaire items have been poorly or improperly specified in measuring satisfaction and loyalty in the context of financial institutions. Item analysis is recommended by Oliver (1997). He suggests that items that detract from or fail to contribute to scale reliability should be deleted in this manner. Table 5.2 provides not only the results of reliability analysis for this study, but also the range of coefficients alpha obtained in the literature (the column labeled "Lit."). This provides the researcher and reader with comparisons that assist in evaluating the results obtained here.

Criterion validity analysis provides additional guidance regarding the usefulness of each variable in the loyalty constructs. Items that are not correlated with satisfaction variables to a high degree of significance are not likely to faithfully represent the constructs with which they are thought to be associated.

The questionnaire was intentionally designed to include more than a sufficient number of the types of satisfaction and loyalty items specified in the literature as necessary (Oliver 1997). There are two reasons for doing so. First, this study tests new loyalty constructs that are grounded not only in studies of customer satisfaction, but also in other areas of consumer behavior research as well. The other reason is that nearly all of the literature consulted for this work has addressed types of products and services other than those provided by depository institutions. Hence the only way to determine which questionnaire items were reliable and/or valid was to test them. And there was a reasonable expectation a substantial number of items would be unreliable and/or invalid due to improper specification, and thus they should be dropped.

Satisfaction Scale

The literature recommends a 12-item consumption satisfaction scale as a starting point (Oliver 1997). These variables measure performance evaluation and quality,

need fulfillment, failed expectations, cognitive dissonance, success attribution (two items), regret, positive affect, remorse, negative affect, and purchase evaluation. Five additional items suggested as a means of augmenting the scale, measuring delight, pleasure,

Table 6.2

Scale Analysis

Scale	# of Items Begin	End	Reliability Study	Lit.	Criterion Validity	Study Factor Loadings
Satisfaction	17	8	.93	.98-.75	N/A	.87-.77
Cognitive L.	11	5	.89	.97-.72	p=0.000	.78-.62
Affective L.	11	8	.89	.84-.78	p=0.000	.78-.58
Conative L.	5	3	.81	.76	p=0.000	.78-.66
Action-Product Adoration	22	5	.80	.84-.70	p=0.000	.80-.74
Community-V. Community L.	23	6	.82	N/A	p<0.040	.76-.66

contentment, relief, and positive disconfirmation. Of these 17 satisfaction questionnaire items/variables, the essential element is an anchor item. The literature also

advises that the only item that should not be deleted is the satisfaction anchor; a pretest reliability analysis is recommended to determine items that contribute the least to scale reliability. And indeed, reliability analysis resulted in the same eight variables as those retained in the pretest, and coefficient alpha virtually identical to that obtained in the pretest (0.95 in the first pilot study versus 0.93 in the mall study). These results compare favorably with studies reported in the literature, from 0.75 (Westbrook and Oliver 1981) to 0.98 (Oliver 1993). The eight questionnaire items retained in this study are also comparable with the number of items used in prior research, a range of three to 12 variables. These results are appropriate for basic, preliminary, and applied research (Kaplan and Saccuzzo 1982; Nunnally 1978; both cited in Peterson 1994). Construct validity was confirmed via exploratory factor analysis, indicating that the scale is clearly unidimensional.

Cognitive Loyalty Scale

Oliver (1997) does not specify the number of questionnaire items necessary to capture the cognitive dimension of loyalty. The elements he considers necessary are costs, benefits, brand superiority, and quality; loyalty is enhanced by cost advantages, quality, benefits, and brand superiority. Threats to loyalty are price increases and a perceived lack of quality, benefits, and

brand superiority. Eleven questionnaire items were derived from studies of cognitive variables that affect satisfaction to test three elements of cognitive loyalty: six cost-related items (three forward scored and three reverse scored), two benefits-related items (one forward and one reverse scored), and three quality-related items (two forward scored and one reverse scored). As was discussed in the literature review, a number of studies have been conducted on cognitive effects on satisfaction. Among these studies Oliver and Burke (1999) employed 13 items, Spreng and Olshavsky (1993) used eight, Oliver (1995) used 7, and Oliver and Swan (1989) used 23. Coefficient alphas reported for these efforts have been as high as 0.97 (Spreng and Olshavsky 1993) to 0.77 (Oliver and Burke 1999), and a range of coefficients alpha from 0.89 to 0.72 were obtained by Oliver and Swan (1989).

Of the 11 original items in the cognitive scale (adapted from Oliver [1997]), five were found to be reliable, yielding a coefficient alpha of 0.8855. This level is considered to be appropriate for basic and preliminary research. It also is very near the threshold for applied research (Kaplan and Saccuzzo 1982; Nunnally 1978; both cited in Peterson 1994), and is rated "moderate to high" by Murphy and Davidshofer (1988; as cited in Peterson 1994). The surviving items were the three forward- scored cost related variables, one forward-scored

benefit variable, and one positively-scored quality variable. A high degree of criterion validity was found, with all correlations significant at $p = 0.000$. Construct validity was determined via exploratory factor analysis; factor loadings of 0.78 to 0.62 obtained in this study were consistent with those achieved elsewhere (Mano and Oliver 1993; Oliver and Burke 1999). Thus, all of the three elements of the original scale (items measuring cost, benefits, and quality) adapted from satisfaction research are present in this test of cognitive loyalty, substantially representing the intended construct.

Affective Loyalty Scale

Like cognitive loyalty, the affective loyalty construct is grounded in the study of customer satisfaction which is adapted to the measurement of loyalty. As was discussed in the literature review, affect is simply the emotional aspect of satisfaction or loyalty. The literature does not provide guidance regarding the number of questionnaire items necessary to test affective loyalty (Oliver 1997). The elements considered necessary for an affective scale are prior satisfaction/ dissatisfaction (Oliver 1997), involvement (Beatty et al. 1988; Mittal and Lee 1989), the degree of liking, and preference (Oliver 1997). Eleven questionnaire items were assembled, composed of two prior satisfaction variables, five involvement items, two items that addressed "liking," and two items

measuring preference. The number of items representing each element were based on the references consulted. The satisfaction item is similar to one of the items in the satisfaction scale, while the dissatisfaction item resembles a variable in the cognitive loyalty construct. The involvement items are adapted from the three items of the purchase involvement scale from Beatty et al. (1988), and the three items of the product involvement scale and the three items of the brand-decision scale from Mittal and Lee (1989). The two liking and preference variables are taken from Oliver's discussion of the construct (1997; 1999). Of the 11 items in the affective loyalty scale, five variables are adapted from studies of involvement and commitment (Beatty et al. 1988; Mittal and Lee 1989), while six are derived from satisfaction research.

Eight of the 11 variables in the affective loyalty scale comprised a reliable and valid scale. Coefficient alpha of 0.8890 was calculated, a level considered appropriate for basic and preliminary research. It is also very near the threshold for applied research (Kaplan and Saccuzzo 1982; Nunnally 1978; both cited in Peterson 1994), and is rated "moderate to high" by Murphy and Davidshofer (1988; as cited in Peterson 1994). This computed alpha also compares favorably with partially similar work by Beatty et al. (1988), who reported 0.84, and Mittal and Lee (1989), who reported 0.78. Studies of affective

determinants of satisfaction obtained coefficients alpha ranging from 0.56 to 0.91. Among the remaining items in the construct are one satisfaction item, four involvement items, one liking item, and both of the preference variables. Deleted items included a "liking" statement referring to a feeling of elation, a reverse scored "dissatisfaction" statement regarding mistakes made by the provider (Oliver 1997), and a "liking" statement addressing vip treatment by the financial services provider (Beatty et al. 1988; Mittal and Lee 1989). The results of criterion validity testing were excellent, with all correlations between variables in the construct and satisfaction variables significant at $p = 0.000$. Exploratory factor analysis was also successful. Factor loadings of 0.78 to 0.58 were consistent with those obtained by others (Oliver, Rust, and Varki 1997; Westbrook 1987). Thus, all of the four defining elements of the construct are present in the final scale.

Conative Loyalty Scale

Conative loyalty pertains to a commitment to a branded product or service. The concept is grounded in the brand commitment scale described in Beatty et al. (1988), and the brand commitment scale described in Mittal and Lee (1989). Each scale is comprised of three items. There is a degree of overlap between the two. Two items were suggested in Oliver (1997). Of these eight variables, five were found

to be applicable to a test of the conative loyalty scale.

Three of the five variables comprise a reliable and valid conative scale. A coefficient alpha of 0.8075 was achieved which is better than the 0.76 reported by Beatty et al. (1988). Coefficient alpha for this construct is considered to be appropriate for basic and preliminary research (Kaplan and Saccuzzo 1982; Nunnally 1978; both cited in Peterson 1994), and is considered "moderate to high" (Murphy and Davidshofer 1988; as cited in Peterson 1994). Coefficients alpha were not reported for the commitment scale in Mittal and Lee (1989). Two of the three variables are commitment items adapted from Beatty et al., and Mittal and Lee. The third was one of the two items recommended by Oliver. Criterion validity testing determined that all correlations between the construct variables and the satisfaction items were significant at $p = 0.000$. Exploratory factor analysis was equally successful, with factor loadings of the three variables from 0.78 to 0.66 (consistent with the results reported by Beatty et al. [1988]). Thus, the abridged scale is substantially the same as the original.

Action-Product Adoration Loyalty Scale

The analysis of the action and fortitude scales in the pilot study of business administration undergraduates prepared the researcher for the mall patrons study. The same difficulties encountered in the first effort were

experienced in the mall patrons survey. As in the first pilot study, this stage of scale analysis began with action loyalty, proceeded to fortitude loyalty, and concluded with the joint action-product adoration loyalty scale similar to that obtained in the first pretest.

Action Loyalty

The three essential elements of an action loyalty scale are loyalty proneness, switching, and information-seeking (Oliver 1997). A scale of 11 items was adapted from repetitive behavior proneness, brand switching, and information seeking questionnaire items reported in Raju (1980), as well as a loyalty proneness item recommended in Oliver (1997). Initial reliability analysis yielded a coefficient alpha of 0.7178. This level is considered to be appropriate for basic research (Kaplan and Saccuzzo 1982; as cited in Peterson 1994) and preliminary research (Nunnally 1978; as cited in Peterson 1994). The coefficient alpha obtained in this study is also comparable with that obtained by Raju for his proneness (0.70) and brand switching scale (0.784) in a survey of housewives. Of the 11 original items, only three variables (two proneness items and the proneness item recommended by Oliver) survived reliability and criterion validity testing. The source of the criterion validity problem may be a lack of applicability of many of Raju's questionnaire items to the measurement of action loyalty; also note that

the items are derived from a study of consumers' optimum stimulation level. Another source of difficulty may be a lack of applicability of many of the variables to customer loyalty, and particularly the loyalty of the customers of financial institutions.

Fortitude Loyalty

Subsequent to his discussion of action loyalty, Oliver (1997) describes an even stronger bond between a consumer and a branded product that he termed fortitude. The term refers to the degree to which a consumer isolates herself from promotional appeals by competing brands. The reason for this state of isolation is a close relationship that has formed between the consumer and the branded product or service. Fortitude is formed via the accumulation of product adoration and the suppression of information seeking behavior. Product adoration comprises two of the items of the fortitude scale (Oliver 1999). The other nine variables are adapted from Raju's (1980) information seeking behavior scale; four of these items are also similar to Ping's (1994) alternative attractiveness scale. The reliability of the fortitude scale was worse than that for any other scale in this study: a coefficient alpha of 0.5234 was calculated. The same was true of the criterion validity analysis, with correlations for only two items (product adoration) statistically significant.

To resolve these problems I again consulted the literature (Oliver 1999); in the conclusion, Oliver speculates regarding the degree of overlap between action loyalty and fortitude loyalty. Conceptually the two constructs are very similar in that action loyalty alludes to the active pursuit of consumption (even if obstacles must be overcome), while fortitude refers to a relationship between a consumer and a branded product or service that insures exclusive patronage and precludes patronage of competing products or services. As was done in the analysis of the first pilot study, the three reliable and valid action loyalty items were merged with the two reliable and valid fortitude loyalty items into one action-product adoration construct, acknowledging the overlap discussed regarding the two concepts. Thus, the action loyalty and fortitude loyalty scales were replaced by an action-product adoration loyalty scale.

Action-Product Adoration Loyalty Scale

Reliability analysis and criterion validity testing determined that three action loyalty variables (two behavior proneness variables based on Raju [1980] and the loyalty proneness variable recommended by Oliver [1997]) were suitable for additional analysis. They were combined with the two product adoration loyalty variables from the fortitude scale. Doing so addressed the reliability problem of the fortitude scale, as well as the limited

number of items of both scales that exhibited criterion validity. The reliability of the combination of action loyalty and product adoration loyalty items was superior to either of the original scales. The new action-product adoration loyalty scale attained a coefficient alpha of 0.8045. This level is considered to be appropriate for basic and preliminary research (Kaplan and Saccuzzo 1982; Nunnally 1978; both cited in Peterson 1994), and "moderate to high" (Murphy and Davidshofer 1988; as cited in Peterson 1994). All correlations in the criterion validity analysis were significant at $p = 0.000$, and exploratory factor analysis verified the unidimensionality of the construct.

Community-Virtual Community Loyalty Scale

Community loyalty is a very rare and special relationship among the owners of a branded product which can accrue benefits to the maker of the product (Oliver 1999). Prior research encountered problems measuring a consumption community (Friedman et al. (1993). The first pilot study in this research also encountered difficulties; the experience obtained in that effort made analysis of the mall patrons survey data facile.

Community Loyalty

The community loyalty scale is composed of variables adapted from Friedman et al. (1993) and Putnam (2000). Reliability and criterion validity analysis of this scale was problematic, with nonsignificant correlations between

five variables of the construct and the customer satisfaction scale. Coefficient alpha of the abridged six item scale is 0.7512. This is considerably less than the 0.90 and 0.91 obtained in two tests of a 92 item questionnaire reported by Friedman et al. (1993). However, coefficient alpha of 0.7512 is considered appropriate for basic (Kaplan and Saccuzzo 1982; cited in Peterson 1994) and preliminary research (Nunnally 1978; cited in Peterson 1994). Putnam did not report results of reliability or criterion validity testing of his social capital index. Since no other quantitative research has formulated a community construct, there is very little that can be done to improve the formulation of a community loyalty construct. This problem was anticipated during the literature review conducted for this research, and a virtual community loyalty construct was proposed.

Virtual Community Loyalty

The virtual community loyalty scale is adapted from qualitative research reported in works edited by Brown (1995; 1997; 1998). Reliability and criterion validity analysis is only slightly more favorable than that of the community loyalty construct. Correlations for only four of the 12 scale items were statistically significant. When reliability analysis was conducted on the remaining four-item scale, coefficient alpha dropped from 0.9100 to 0.7880. This level is considered appropriate for basic

(Kaplan and Saccuzzo 1982; cited in Peterson 1994) and preliminary research (Nunnally 1978; cited in Peterson 1994).

The state of the art in virtual community research is grounded in qualitative research, and quantitative research of the consumption community concept is in its infancy. Thus, improvement in the reliability and validity of the community construct is dependent upon using the strength of the consumption community and virtual community constructs to form a single community-virtual community construct.

Hybrid Community-Virtual Community Loyalty Scale

The community loyalty variables that are significantly correlated with the satisfaction construct are adapted from Friedman et al. (1993); the first pertains to a communality between the respondent and his or her friends, relatives, and others in conducting business with the same financial services provider. The other suggests that being a customer of a particular financial services firm invokes a sense of belonging to a club or special group of people. Four virtual community variables contribute to the hybrid construct. The first item refers to a commonalty between the respondent and other customers of his or her financial services provider. The second pertains to obtaining household budgeting and financial planning information from one's financial services provider. The third provides respondents with the opportunity to express their desire to

communicate with friends, family, and fellow customers through the financial service provider's web site. The last item provides subjects the opportunity to express a desire to communicate with employees of their financial services provider through their web site. Of the six variables, four refer to relationships with family, friends, and fellow customers, while the other two items address personal concerns.

Reliability analysis of the hybrid community-virtual community loyalty scale resulted in coefficient alpha of 0.815. This level is considered appropriate for basic research (Kaplan and Saccuzzo 1982; Nunnally 1978; both cited in Peterson 1994), and at a "moderate to high level" (Murphy and Davidshofer 1988; as cited in Peterson 1994). Criterion validity was achieved with all correlations significant at $p < 0.04$. Exploratory factor analysis was also successful, indicating that the construct is clearly unidimensional. Criterion validity is achieved with all correlations with the satisfaction variables significant at $p < 0.04$.

Scale Analysis Summary

At the conclusion of the exploratory factor analysis stage satisfaction and cognitive, affective, and conative loyalty emerged in reduced form. Analysis of the action and fortitude loyalty scales resulted in a single, merged action-product adoration scale that accounts for the

overlap in the two foreseen by Oliver (1999). Similar results were obtained in analysis of the community and virtual community scales, which were also merged to form a hybrid community-virtual community scale. This outcome confirmed Oliver's belief that attainment of community loyalty is a rare and exceptional achievement.

Confirmatory Factor Analysis

The initial preparatory step toward hypothesis testing is confirmatory factor analysis, which is conducted to obtain reliable and valid constructs. These constructs are then linked together in the form specified by the literature (Oliver 1997; Oliver 1999) to form a hybrid model (see Figure 6.1), providing the models for hypothesis testing.

Satisfaction Construct

The eight variables of the exploratory factor analysis were analyzed. The initial model fit was poor, with a chi-square statistic of 64.757 (20df), and $p = 0.000$. Since Hoelter's critical N for $p = 0.01$ was calculated to be 112 respondents and there were 194 usable questionnaires, the use of the chi-square/df statistic to determine model fit is warranted (Kline 1998). The initial chi-square/df statistic is 3.238. Consultation of the modification indices table determined that there are covariances that were consistent with those identified in the first pilot

study. Three covariances among six different variables improved model fit (see Table 6.3).

Cognitive Loyalty Construct

All of the eleven cognitive loyalty variables from the exploratory factor analysis were tested. Initial fit statistics were chi-square = 431.034 (44df), $p = 0.000$; there were also six items with error variances greater than 0.99. In many instances these Heywood cases can be resolved by fixing the error variance to an extremely low value, such as 0.005 (Kline 1998). This technique was unsuccessful; the procedure in this circumstance is to drop the Heywood cases from the analysis. When this was done, five variables remained. Consultation of the modification indices indicated that there was a covariance between two variables that was consistent with those identified in the first pilot study. When this covariance was incorporated into the analysis, the result was an excellent fit (see table 6.3). The remaining items are the first five forward-scored variables of the cognitive loyalty portion of the questionnaire; they are the same variables as those that emerged from the exploratory factor analysis, further validating that initial test.

Affective Loyalty Construct

The eight variables that emerged from exploratory factor analysis were employed in the confirmatory factor analysis. Initial fit statistics indicated a poor fit:

Table 6.3

Measurement Model Data

Construct	Chi-Sq/df	*p*	GFI	NFI	CFI	AGFI	RMSEA
Satisfaction	2.13	0.004	0.957	0.968	0.983	0.908	0.077
Cognitive Loyalty	0.789	0.532	0.993	0.994	1.000	0.976	0.000
Affective Loyalty	2.598	0.001	0.956	0.960	0.975	0.887	0.091
Conative Loyalty	N/A	N/A	1.000	1.000	1.000	N/A	N/A
Action-Product Adoration Loyalty	N/A	N/A	1.000	1.000	1.000	N/A	N/A
Community-Virtual Community Loyalty	0.409	0.747	0.998	0.996	1.000	0.988	0.000

chi-square = 219.795 (20df), with $p = 0.000$. Hoelter's critical N for $p = 0.01$ was calculated to be 33 respondents, a clear indication that the chi-square/df statistic is permissible; nonetheless, chi-square/df was found to be 10.990. Consultation of the modification indices indicated a network of five covariances between variables. These associations between variables exhibit

face validity. For instance, the sentiment that one's financial institution does a better job than other institutions is closely aligned with liking one's financial institution more than others makes sense on its face. The idea that the choice of a financial institution is aligned with the notion that the institution used is important is logical; the same is true regarding being happy with one's financial services provider and being relaxed when conducting business with one's bank/credit union/thrift institution. The other two covariances similarly fit this network of relationships. The final fit statistics indicated that good fit was achieved (see Table 6.3).

Conative Loyalty Construct

The three items that survived the exploratory factor analysis were tested in the confirmatory factor analysis. Three variables are the minimum that can be employed in confirmatory factor analysis; in such an instance chi-square = 0.000 (0df), thus *p* and chi-square/df can not be computed.

Action-Product Adoration Loyalty Construct

The problems that were experienced in the initial analysis of the action and fortitude loyalty variables also occurred in the confirmatory factor analysis of the action loyalty construct. The three action loyalty items and two product adoration (fortitude loyalty) variables were employed in the initial analysis. The result was poor

model fit: chi-square = 32.994 (5df), p = 0.000, and chi-square/df = 6.599. One of the action loyalty variables had to be dropped due to its error variance (1.18). When the remaining four variables were analyzed consultation of the covariance indices identified two covariances, one among the two fortitude loyalty variables and one between one of the fortitude items and one of the two remaining action loyalty items. This solution resulted in chi-square = 0.000 (0df); hence p and chi-square/df could not be computed.

Community-Virtual Community Loyalty Construct

Analysis of the community and virtual community loyalty constructs were also problematic. Two community loyalty and three virtual community items were initially employed. One virtual community and two community variables yielded error variances greater than .99. Fixing their error variances at 0.005 was not productive; the offending items were dropped. The remaining three virtual community variables meant that the community portion was no longer viable; this was not an acceptable solution. The practice employed in the first pilot study was repeated in this effort, using two constructs linked by a covariance, with two community items and three virtual community items. The modification indices indicated that there was a covariance between a community loyalty variable and a virtual community variable. This covariance links together

the ideas that the respondent's associates also transact business with their financial services provider, and a desire to obtain educational information from one's financial provider. The result provided an excellent fit.

Construct Reliability and Variance Extracted

The next step is to determine construct reliability and the variance extracted by the constructs. This procedure is recommended by Hair et al. (1995); they suggest that the minimum acceptable level for each statistic is 0.50. This recommendation is problematic, because differences in the manner in which the two statistics are calculated result in variance extracted statistics that are lower than those for reliability.

Table 6.4

Construct Reliability and Variance Extracted

Construct	Reliability	Variance Extracted
Satisfaction	0.879	0.479
Cognitive Loyalty	0.765	0.409
Affective Loyalty	0.719	0.264
Conative Loyalty	0.671	0.414
Action-Product Adoration Loyalty	0.582	0.284
Community-Virtual Community	0.699	0.320

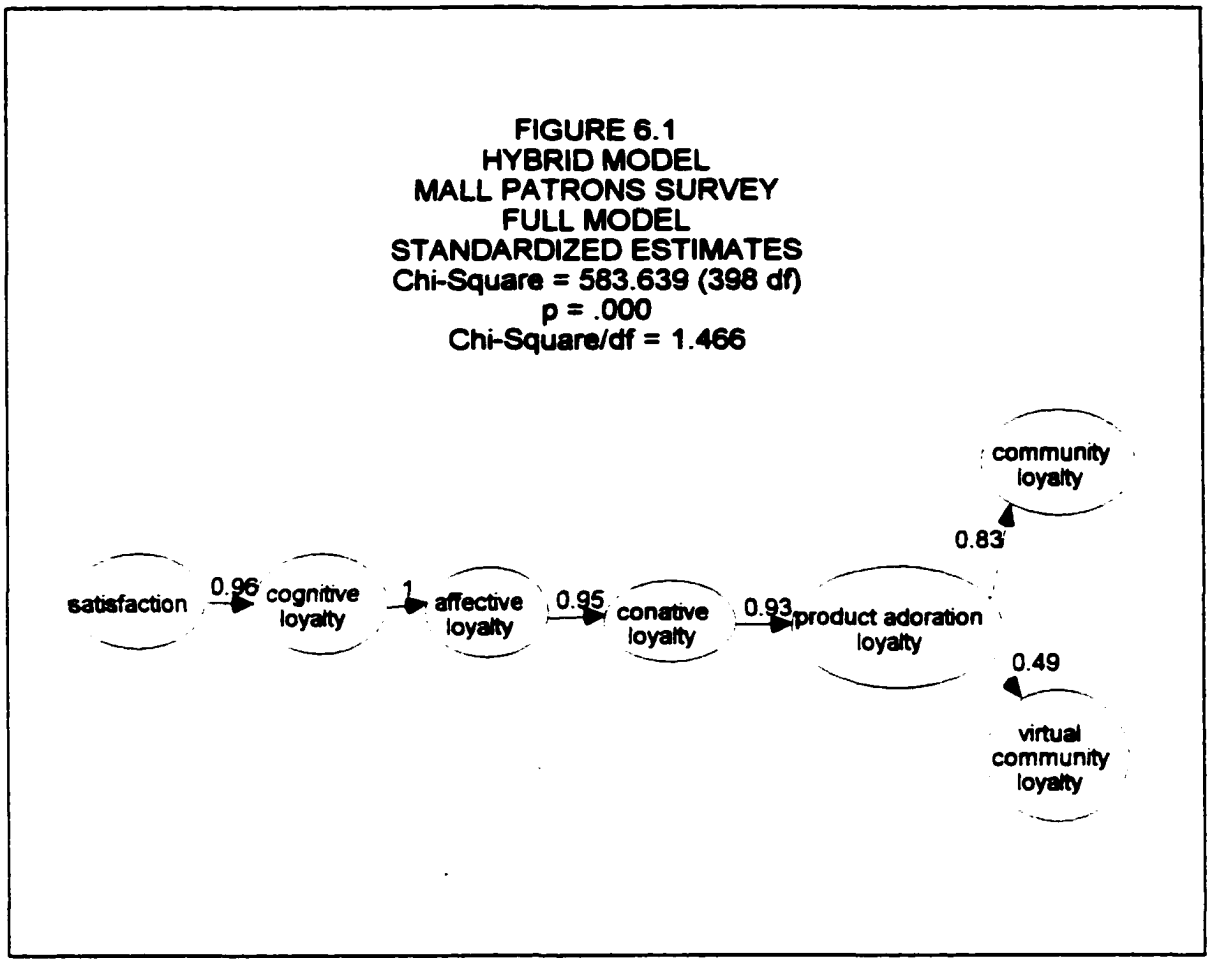
Hence, reliability of 0.50 always results in variance extracted that is less than 0.50. However, the reliability and variance extracted statistics obtained in this study (see Table 6.4) are consistent with those provided from their examples. The results of this study are also consistent with those obtained by Beatty et al. (1988). This research employs affective and conative loyalty items derived from their study.

Hybrid Model Analysis

Testing of the satisfaction-loyalty models begins with the full model. First, the fit of all of the loyalty constructs and satisfaction construct is assessed. If this full model achieves an acceptable fit the analysis proceeds to tests of the CTA and F-C loyalty models.

Full Model

Analysis of the full model was conducted in three phases. All of the constructs were entered into a hybrid model composed of satisfaction, cognitive loyalty, affective loyalty, conative loyalty, action-product adoration loyalty, community loyalty, and virtual community loyalty (see Figure 5.1). In its initial configuration model fit was not at an acceptable level. This was predicted in the analysis of pretest data. Two Heywood cases in the action-product adoration loyalty construct were encountered. Per Kline (1998), the error variances were fixed at 0.005. This did not remedy the problem, and



the variables were dropped from the construct.

A review of the modification indices verified Oliver's (1999) belief that there is a degree of overlap between and among the satisfaction and loyalty constructs. As was the case in the analysis of the constructs, the covariances suggested by the modification indices had face validity. For instance, delight in the satisfaction construct covaries with love of one's financial institution in the action-product adoration construct, delight covaries with the community loyalty construct, the belief that one's

choice of a financial institution is a good one (satisfaction construct) covaries with the sentiment that the financial institution with which one does business is an important matter (affective loyalty construct), and the belief that doing business with one's financial institution (satisfaction construct) covaries with the feeling that the institution can meet all of one's needs (conative loyalty construct). These associations simply make sense; incorporating them into the full model improved chi-square/df from 2.051 to 1.466. Fit statistics calculated for the full model are listed in Table 6.4; the fit indices chosen are those recommended by Kline (1998) that are available in Amos.

CTA (Five Factor) Loyalty Model

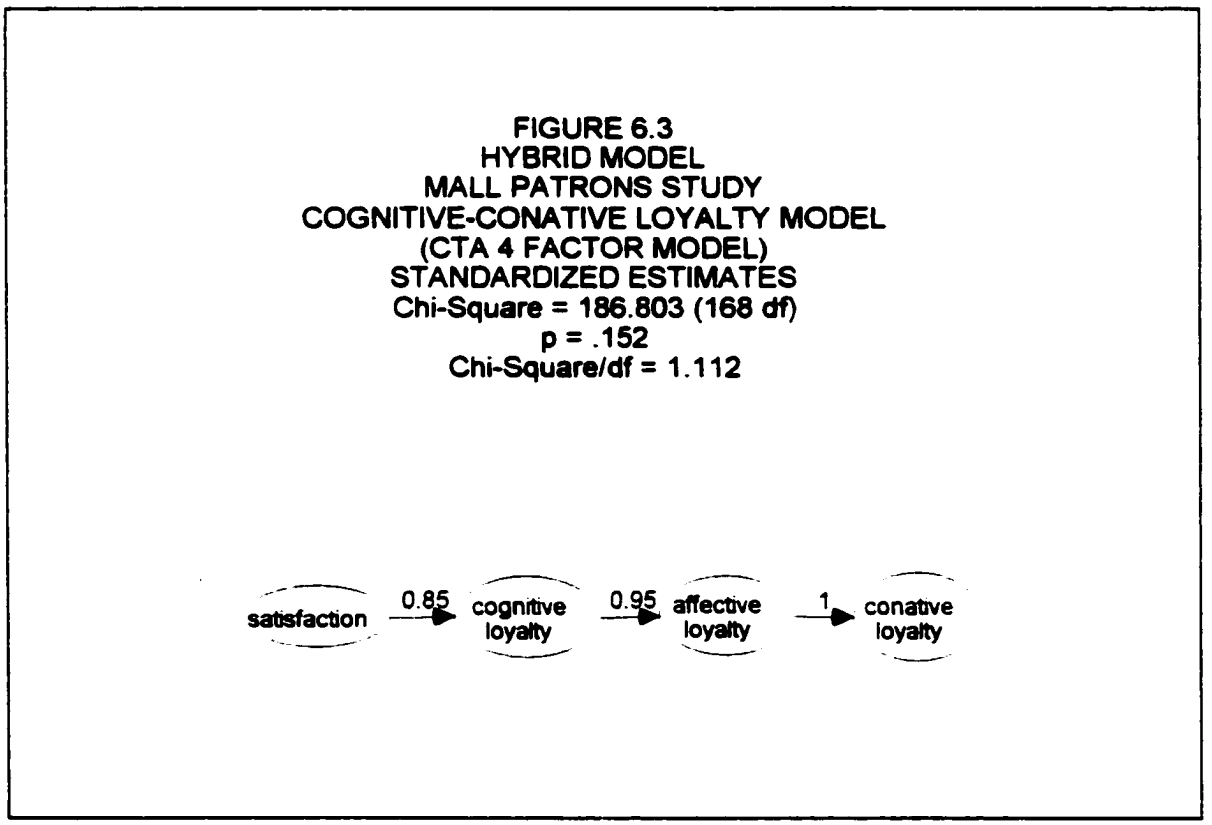
Next, the community and virtual community constructs were dropped to test the CTA loyalty model (see Figure 6.2). Recall that the action loyalty and product adoration portions of fortitude loyalty were merged in the analysis of the constructs, and that the two action loyalty items had to be dropped because they were Heywood cases. This means that the action-product adoration loyalty construct reverts to a pure product adoration loyalty construct in the full model. However, the assertion that there is overlap between the action and product adoration loyalty constructs does not go away. For this reason the product adoration loyalty construct is tested with the

satisfaction, cognitive loyalty, affective loyalty, and conative loyalty constructs. Initial analysis of the modification indices indicate that there were relationships between variables that confirmed Oliver's (1999) belief that there were overlaps between the

FIGURE 6.2
HYBRID MODEL
MALL PATRONS STUDY
COGNITIVE-PRODUCT ADORATION MODEL
(CTA 5 FACTOR MODEL)
STANDARDIZED ESTIMATES
Chi-Square = 384.887 (263 df)
p = .000
Chi-Square/df = 1.463

constructs. As with the full model, these relationships exhibited face validity. Thus, the idea that doing business with one's financial institution is the right thing to do (satisfaction construct) covaries with feelings of loyalty toward the institution (conative loyalty construct), being able to rely on one's financial services

provider (conative loyalty construct) covaries with the product adoration loyalty construct, and the idea that one's financial institution provides superior benefits (cognitive loyalty construct) covaries with the feeling that the image of the institution is important (affective loyalty construct). Fit statistics are listed in Table 6.5.



Abridged (Four Factor) CTA Model

The next step in the analysis was to test the CTA loyalty model without the product adoration loyalty construct (see Figure 6.3). This model is composed of the

satisfaction, cognitive loyalty, affective loyalty, and conative loyalty constructs. Analysis resulted in slightly less favorable fit statistics. The abridged CTA model was substantially similar to the model that included the product adoration construct, except that some covariances were deleted from the affective loyalty construct due to a negative construct error variance.

Table 6.5

Structural Model Data

Model	Chi-Sq/df	*p*	GFI	NFI	CFI	AGFI	RMSEA
Full	1.466	0.000	0.844	0.882	0.959	0.805	0.049
CTA 5	1.463	0.000	0.871	0.911	0.970	0.827	0.049
CTA 4	1.112	0.152	0.886	0.928	0.992	0.843	0.029
F-C	1.266	0.057	0.937	0.948	0.989	0.903	0.037

Table 6.6

Chi-Square Difference Tests

Models Compared	*p*
CTA 5 Factor vs. 4 Factor	0.000 (sig.)
CTA 4 Factor vs. F-C	0.538 (n.s.)
CTA 5 Factor vs. F-C	0.000 (sig.)

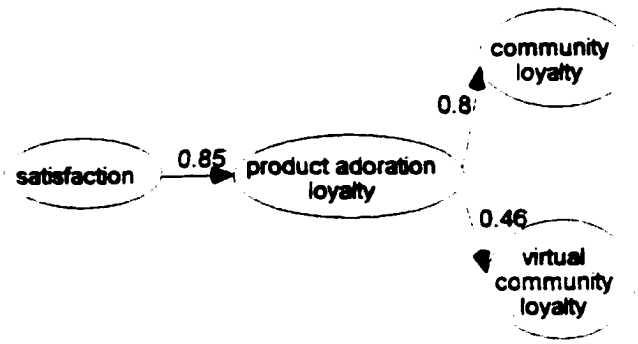
F-C Loyalty Model

To test the F-C loyalty model the cognitive, affective, and conative loyalty constructs were removed from the full model, and the satisfaction, product adoration loyalty, and community-virtual community loyalty constructs are retained (see Figure 6.4). Initial fit statistics for the F-C loyalty model are excellent. The modification indices were consulted to determine whether recognizing relationships between satisfaction, product adoration, and community-virtual community variables would improve fit. Although *p* dropped to 0.396 and the chi-square to degrees of freedom ratio dropped to 1.034 there was no substantial improvement in the fit indices. Hence, the initial solution is retained for parsimony.

Comparing the Models

"Which of the two models is 'better'?" is an irresistible question. A means of answering this question is to compare models via chi-square difference tests, which must be chosen with caution to avoid the error-inflation problem associated with multiple comparisons. For this reason there are no comparisons between the full model and the CTA and F-C loyalty models.

FIGURE 6.4
HYBRID MODEL
MALL PATRONS STUDY
PRODUCT ADORATION-COMMUNITY MODEL
(F-C LOYALTY MODEL)
STANDARDIZED ESTIMATES
Chi-Square = 98.724 (78 df)
p = .057
Chi-Square/df = 1.266



First, the F-C model is a significantly better explanation of the relationship between satisfaction and loyalty than the CTA five-factor model (see Table 6.4). The reason for the chi-square difference can probably be attributed to the difference in the size of the two models: the CTA model is composed of five constructs and 23 variables, while the F-C model is smaller, using three constructs (the community and virtual community constructs are merged) and 15 variables.

An unanticipated outcome of the hybrid model analysis was the transformation of action-product adoration to a product adoration loyalty construct. This indicates that this study failed to identify an action loyalty construct, and perhaps the product adoration construct should not be a part of the CTA model. Since there is an opposite argument that the CTA model may capture some of the attributes of the action loyalty construct, a chi-square difference analysis was conducted on this (CTA five factor) model. To respect the argument that the product adoration construct is not applicable to the CTA model, a chi-square difference test of the CTA loyalty model without the product adoration construct (the CTA four factor model) was conducted. The outcome of the test determined that the four-factor model is a better explanation of the relationship between satisfaction and loyalty than the five-factor model (see Table 6.5). This result is consistent with the notion that structural equation analysis favors parsimonious models over larger, more elaborate ones.

Since this is the case a comparison of the CTA four-factor model with the F-C model is necessary. The four-construct, 21-variable satisfaction-cognitive-affective-conative loyalty model is not a significantly better explanation of the relationship between satisfaction and loyalty than the three-construct, 15-variable F-C loyalty model.

Again, which model is "best?" The abridged CTA model and the F-C model are better than the full CTA model at explaining the relationship between satisfaction and loyalty, but there is no significant difference between the abridged CTA and F-C loyalty models. Conceptually this makes very good sense, because the two models discuss different loyalty concepts: each has something unique to contribute to the marketing discipline which should not be discounted. Thus the results are equivocal. The overall goal of this research is to learn as much as possible about the relationships between various types of loyalty and satisfaction; the model that achieves that goal (with parsimony) is the CTA-four factor model. If structural equation modeling methodology is the deciding factor the F-C model is the best model. Insofar as practitioners and consultants are concerned, the CTA four factor loyalty model provides better guidance for strengthening customer loyalty.

Hypotheses Testing

Hypothesis one introduces the assertion that there is a positive relationship between satisfaction and loyalty in its various forms. Hypothesis H_{1a} specifies a positive relationship between satisfaction and cognitive loyalty, and is testable by examining the path coefficients between the two constructs in the full model, the CTA loyalty model, and the abridged CTA loyalty model, all of which are

positive. Hypothesis H_{1b} specifies a positive relationship between cognitive loyalty and affective loyalty, and is also tested by examining the path coefficients between the constructs in the aforementioned models. The relevant path coefficients of all three models are positive. Hypothesis H_{1c} asserts a positive relationship between affective loyalty and conative loyalty. H_{1c} is also testable by examining the path coefficients between the two variables in the full model, CTA loyalty model, and the abridged CTA model. In all three models the relevant coefficients are positive. H_{1d} specifies a positive relationship between conative loyalty and action loyalty. H_{1d} was not supported, because none of the observed variables of the action loyalty construct survived structural analysis. Instead, two fortitude loyalty variables remained, creating a product adoration loyalty construct. The path coefficients between conative loyalty and product adoration loyalty in all three relevant models are positive. Thus H_1 is only partially supported due to a lack of validity of the action loyalty factor.

Hypothesis H_2 specifies a positive relationship between consumer fortitude and action loyalty. Because the action loyalty construct did not survive structural analysis the hypothesis is not supported. However, the action and fortitude constructs merged in factor analysis, confirming speculation by Oliver (1999) that there existed

a large degree of overlap between the two factors.

Hypothesis H_3 asserts a positive relationship between community loyalty and action loyalty. Again, the action loyalty construct did not survive structural analysis, and the hypothesis was not supported.

Altogether four models were tested. All path coefficients in all four models were positive, confirming the notion that not only is satisfactior positively related to loyalty, but also the various stages and types of loyalty are positively related to one another. The magnitude of the of the standardized path coefficients was quite high. Standardized path coefficients for this research are also considerably higher than those obtained in a study of ego involvement, purchase involvement, and brand commitment (Beatty et al. 1988), and in a study of performance quality, brand reputation, satisfaction, and loyalty (Selnes 1993).

Mall Study Summary

This study began with eight constructs comprised of 89 items. After reliability, criterion validity, exploratory factor analysis, confirmatory factor analysis, and construct reliability testing, six constructs and 31 variables emerged. The community and virtual community loyalty constructs were merged into one construct, as were the action and product adoration loyalty constructs. In the course of hybrid model analysis the remaining action

loyalty variable was dropped. The result was a product adoration construct. Both the CTA and F-C loyalty models are reliable, valid, and parsimonious models that explain satisfaction and loyalty. There is also the issue of the abridged CTA loyalty model, which excludes the product adoration loyalty construct because it may not properly represent the action loyalty concept; this model is composed of four constructs and 21 variables. The abridged CTA model is also found to be reliable and valid. Thus, this effort confirms both of the satisfaction-loyalty models proposed by Oliver (1999), as well as the notion that there is significant overlap between the action and fortitude loyalty constructs. This study is also the first to identify a virtual community loyalty construct, and closely identify it with a community loyalty construct.

There are also caveats and limitations associated with this study. First, the process of survey data collection began on Saturday, September 15, 2001, four days after a series of terrorist attacks against the United States. Data collection continued in October. There is no way of knowing whether this unique event affected participants' responses. The second caveat of this study is the ethnicity of most of the respondents, who are Hispanic. The results of this study may not be representative of individuals who are not Hispanic. Another potential problem is the substantial but undocumented number of people who could not

respond to the survey because the researchers are not fluent in Spanish and there was no Spanish language version of the questionnaire. The responses of people who were not fluent English speakers could not be obtained. Whether their responses could have affected the outcome of this study is not known. Lastly, 62.4% of the respondents are women, which means that they dominate the responses. This is not altogether surprising, as the primary objective of mall patronage is shopping, and it should not be a surprise to anyone that women shop more than men. The imbalance in the ratio between women and men may have affected results. However most of the variables that emerged from confirmatory factor analysis and hybrid model in the mall study were also in the constructs of the first pilot study. Thus, the influence of terrorist attacks, ethnicity, English language fluency, and gender on the results of this study are severely limited.

Some of the questions regarding the satisfaction with and loyalty to the financial service providers of Spanish speaking men and women will be answered in Chapter VII. Three surveys of business administration students, two in Mexico and one in the United States, will be discussed.

CHAPTER VII

CROSS-CULTURAL STUDENT SURVEY

Introduction

A Spanish language version of the questionnaire was administered to business administration students at two universities: one in Northern Mexico, and the other in Central Mexico. This study was conducted to determine whether the constructs and the models possessed external and cross-cultural validity. The questionnaire was translated and back translated by individuals whose first language was Spanish. They obtained additional assistance from two other individuals regarding banking and securities terminology in Mexico, and Spanish grammar.

The questionnaire was administered in the course of regular class meetings at the university in central Mexico. The university in Northern Mexico has a policy that prohibits this practice; questionnaires were circulated outside classrooms and returned to the office of the professor who distributed them. This method resulted in the distribution of fewer questionnaires. At the former institution 143 forms were distributed and 137 were returned; at the latter school 87 questionnaires were given

Table 7.1

Respondent Demographics

	#	%
Nationality		
United States	136	49.3
Mexico	140	50.7
Total	276	100.0
Gender		
Women	130	47.1
Men	146	52.9
Total	276	100.0
Age		
18-25	230	83.3
26-35	39	14.1
36-55	6	2.2
56 & Over	0	0.0
Not Specified	1	0.4
Total	276	100.0
Relationship Longevity-Years		
Less Than 1	43	15.5
1-2	91	33.0
2-5	102	37.0
5-10	29	10.5
More Than 10	11	4
Total	276	100.0

out and 76 returned, for response rates of 95.8% and 87.4, respectively. There were a total of 140 (65.7%) questionnaires in which there were responses for all of the questions representing observed variables. While the author's colleagues had obtained all of the voluntary respondents available, the usable sample size was approximately the same as that of the pilot sample of U.S. university students-insufficient to properly test the proposed models and the hypotheses.

Thus, the usable responses obtained from U.S. business administration students a year earlier were combined with the usable responses of the Mexican business administration students. Doing so provides a sample that is almost evenly split between U.S. and Mexican respondents. Participants are also nearly matched by gender. Typical of university students, the vast majority of the respondents are under the age of 26, with a small proportion between the ages of 26 and 35, and a tiny number over the age of 36 (see Table 7.1). A surprising demographic is the longevity of the respondents' relationship with their financial services provider. The largest segment is those who have maintained an account with one provider between two and five years. This may be due to the influence of the U.S. portion of the sample, as the students there are a little older than their Mexican counterparts. The number of respondents who have maintained an account with one provider for two to 10 years

gives one good reason to expect a reliable and valid community and/or virtual community construct to emerge from structural equation analysis.

Analysis of Data

The eight stage process reported for the mall patrons survey in Chapter VI was conducted in the cross-cultural student study. Examination of the data was followed by reliability analysis, which was followed by the determination of criterion validity. Next, exploratory factor analysis was conducted to prepare for confirmatory factor analysis, which prepared the constructs for structural analysis. Lastly, chi-square difference tests were conducted to determine the superior satisfaction-loyalty model.

Data Distribution Analysis

This study employs the same 89 observed variables as the mall survey. The responses for each question were tested for skew and kurtosis that would indicate a non-normal distribution of the data that would preclude use of parametric analysis techniques used in quantitative analysis. All variables yielded skew and kurtosis statistics within allowable bounds for the analytical methods to be employed (Bagozzi and Baumgartner 1994; Kline 1998).

Reliability and Validity Testing

Reliability testing of the results of the cross-cultural student survey determines whether any questionnaire items have been poorly or improperly specified, as well as the opportunity to compare the results with the mall survey. Criterion validity is conducted to determine the usefulness of each variable in the loyalty constructs; items that are not correlated with satisfaction variables to a high degree of significance are not likely to faithfully represent the constructs with

Table 7.2

Scale Analysis

Scale	# of Items Begin	End	Reliability Study	Lit.	Criterion Validity	Study Factor Loadings
Satisfaction	17	8	.93	.98-.75	N/A	.89-.71
Cognitive L.	11	5	.84	.97-.72	p=0.000	.80-.75
Affective L.	11	8	.89	.84-.78	p=0.000	.80-.59
Conative L.	5	3	.82	.76	p=0.000	.76-.68
Action-Product Adoration	22	5	.81	.84-.70	p=0.000	.82-.67

which they are thought to be associated. Criterion validity of the constructs is reinforced by the cross-cultural student survey. Thus these stages of the analysis provide verification of prior results.

Satisfaction Scale

Coefficient alpha of the 17 items in the satisfaction scale was 0.94. Alpha for the same abridged, 8 item scale employed in the mall patron survey was identical: 0.93. Coefficient alpha was consistent with that reported in the literature (see Table 7.2). Construct validity was verified via exploratory factor analysis, indicating that the scale remains clearly unidimensional after two surveys.

Cognitive Loyalty Scale

The 11 items in the complete cognitive loyalty scale yielded a coefficient alpha of 0.78. When the unreliable variables were deleted, the five remaining measures comprised a scale with coefficient alpha of 0.84; this was consistent with prior research. These same five items in the mall survey yielded coefficient alpha of 0.89. Both levels are suitable for basic and preliminary research (Kaplan and Saccuzzo 1982; Nunnally 1978), and are considered "moderate to high" (Murphy and Davidshofer 1988; as cited in Peterson 1994).

A high degree of criterion validity was achieved, with all correlations between the satisfaction criterion variables and the cognitive variables significant at p =

0.000, the same threshold achieved in the mall survey. Excellent construct validity was also verified via exploratory factor analysis.

Affective Loyalty Scale

A coefficient alpha of 0.86 was computed for the 11 items of the original affective loyalty scale. The same eight of the 11 variables employed in the mall survey were found to comprise a reliable and valid scale; they yielded coefficient alpha of 0.89, the same level obtained in the mall survey, and somewhat better than that reported in prior research. The outcome of criterion validity testing was excellent, with all correlations significant at p = 0.000. Exploratory factor analysis was also successful, indicating that the construct is unidimensional.

Conative Loyalty Scale

The same three conative loyalty variables that survived reliability and criterion validity testing in prior efforts were successfully employed in the cross-cultural student survey. Coefficient alpha of 0.82 was attained, about the same as the 0.8075 obtained in the mall survey. This level was better than that reported in the literature. Criterion validity also matched the outcome in the prior effort, with all correlations with the satisfaction variables significant for p = 0.000. Exploratory factor analysis was equally successful; the three items comprise a unidimensional scale.

Action-Product Adoration Loyalty Scale

The analysis of the action loyalty scale in the cross-cultural student study was remarkably consistent with that of the pilot study and the mall patrons survey. Prior results were substantially confirmed.

Action Loyalty

Initial reliability analysis yielded coefficient alpha of 0.70, nearly the same as the 0.7178 obtained in the mall survey. The same difficulties were experienced in criterion validity analysis as in the prior effort, and the same three variables survived. All correlations for the remaining items were significant at $p = 0.000$. Thus, the action loyalty scale was merged with fortitude variables because of the overlap between the two constructs.

Fortitude Loyalty

Coefficient alpha for the complete 11-item fortitude loyalty scale was 0.63, not substantially better than the 0.5234 obtained in the mall study. Identical problems experienced in the mall survey were also encountered in criterion validity testing. These results confirm the problematic nature of the specification of both action and fortitude questionnaire items.

Action-Product Adoration Loyalty Scale

The formation of the action-product adoration loyalty construct was replicated in the cross-cultural student survey. The same three action loyalty items were found

suitable for a merger with the same two fortitude loyalty items. Coefficient alpha of 0.81 was obtained, virtually identical to the 0.8045 achieved in the mall patrons survey, and consistent with that obtained in prior research. Criterion validity was similarly successful, with all correlations significant at $p = 0.000$, also identical to the prior effort. Exploratory factor analysis verified the unidimensionality of the construct.

Community-Virtual Community Loyalty Scale

Considerably more problems arose analyzing the community and virtual community loyalty scales in the cross-cultural student survey than in the mall survey. The experience obtained from the pilot study and the mall survey indicated that a merger of the community and virtual community scales was necessary, verifying the analysis of the prior two efforts.

Community Loyalty

Data analysis problems first surfaced in criterion validity testing. When all community loyalty items correlating with satisfaction variables with $p > 0.003$ were deleted, only three variables remained. The coefficient alpha of these three items was 0.72, only slightly less than the 0.7512 obtained for a six-item scale in the mall survey. Exploratory factor analysis verified the unidimensionality of the community loyalty scale.

Virtual Community Loyalty

The worst problems were confronted in the analysis of the virtual community variables. Criterion analysis revealed nonsignificant correlations between all but one of the virtual community items and the satisfaction variables, bringing analysis to a halt. To resolve these problems the one remaining virtual community item was merged with the three items of the community construct.

Hybrid Community-Virtual Community Loyalty Scale

The remaining virtual community item was added to the three-item community loyalty construct. First, coefficient alpha dropped to 0.65, a level that is regarded as substandard (Nunnally 1978; cited in Peterson 1994). All correlations in the community-virtual community scale were significant for $p < 0.04$. The scale was deemed unacceptable for further analysis.

Confirmatory Factor Analysis

Satisfaction Construct

The same eight satisfaction variables that were entered into confirmatory factor analysis in the mall survey entered the same process in the cross-cultural student survey. As before, initial model fit was poor: chi-square = 57.848 (20df), p =0.000. Hoelter's critical N for p = 0.01 was calculated to be 179. Since this study analyzes 276 questionnaires, use of the chi-square/df

statistic is warranted (Kline 1998); the applicable amount is 2.892. Consultation of the modification indices table determined that there were covariances that were consistent with those identified in the first pilot study and the mall patrons survey. Three covariances among six different variables improved model fit (see Table 7.3).

Cognitive Loyalty Construct

Consistent with the analysis of the mall survey data, all of the 11 cognitive loyalty variables from exploratory factor analysis entered confirmatory factor analysis. Fit

Table 7.3

Measurement Model Data

Construct	Chi-Sq/df	*p*	GFI	NFI	CFI	AGFI	RMSEA
Satisfaction	1.473	0.094	0.979	0.984	0.995	0.955	0.041
Cognitive Loyalty	2.438	0.063	0.989	0.986	0.992	0.946	0.072
Affective Loyalty	1.022	.421	0.991	0.992	1.000	0.967	0.009
Conative Loyalty	N/A	N/A	1.000	1.000	1.000	N/A	N/A
Action-Product Adoration Loyalty	14.53	0.149	0.861	0.999	0.999	1.000	0.000

statistics, as before, were poor, with chi-square = 580.183 (44df), and p = 0.000. Unfortunately there were also six Heywood cases in the construct. Experience in coping with these problematic variables has determined that the best solution is to eliminate them. Consultation of the modification indices table determined that there were two covariances between three variables that had been identified in the literature. Incorporating these covariancess into the analysis improved fit to an acceptable level (see Table 7.3).

Affective Loyalty Construct

The eight variables from the exploratory factor analysis were initially entered into confirmatory factor analysis. Model fit was poor, with chi-square = 230.710 (20df), and p = 0.000. Because Hoelter's critical N for p = 0.01 was calculated to be 45 respondents, use of the chi-square/df statistic is permissible; chi-square/df was 11.535. Consultation of the modification indices table indicated that there was a network of 10 covariances that appeared to have face validity. These include the five covariances identified in the mail survey, as well as the notion that once the important decision of selecting a financial service provider has been made, one would like that provider more than others. The same is true of both the importance of the choice of the provider and the

feeling that the provider used "matters to me a lot." Final fit statistics were good (see Table 7.3).

Conative Loyalty Construct

The three variables that survived the initial stages of analysis were entered into confirmatory factor analysis. Since three variables are the minimum that can be employed in confirmatory factor analysis, the outcome is a foregone conclusion: for all saturated models chi-square = 0.000 (0 df), and *p* and chi-square/df can not be computed.

Action-Product Adoration Loyalty Construct

The three action loyalty items, and three product adoration items of the fortitude loyalty construct were entered into confirmatory factor analysis. The initial result was a Heywood case among the action loyalty variables. The offending variable was deleted from the model, and the analysis was rerun. Fit statistics were acceptable: chi-square = 0.299 (2df) and *p* = 0.861. Fit indices are listed above in Table 7.3.

Community-Virtual Community Loyalty Construct

Confirmatory factor analysis of the community-virtual community loyalty construct was highly problematic. Initial analysis was conducted with the two community loyalty and four virtual community loyalty variables that had survived the initial stages of analysis. The result was four Heywood cases. The Heywood cases were dropped,

but no satisfactory solution could be found. Hence, no valid community or virtual community loyalty construct exists for the cross-cultural student survey. This outcome indicates that the community-virtual community loyalty scale that emerged from exploratory factor analysis was found invalid in the course of confirmatory factor analysis. The fact that variables of the same construct did form a valid construct in the mall patrons survey, but did not do so in the cross-cultural student study indicates that the homogeneous group of U.S. and Mexican business administration students failed to perceive themselves to be members of a community, while the more heterogeneous sample of mall patrons did.

Table 7.4

Construct Reliability and Variance Extracted

Construct	Reliability	Variance Extracted
Satisfaction	.90	0.544
Cognitive Loyalty	0.664	0.300
Affective Loyalty	0.757	0.300
Conative Loyalty	0.722	0.470
Action-Product Adoration Loyalty	0.615	0.294

Construct Reliability and Variance Extracted

To complete confirmatory factor analysis construct reliability and variance extracted are computed. This is the same procedure recommended by Hair et al. (1995) that was conducted in the mall survey analysis.

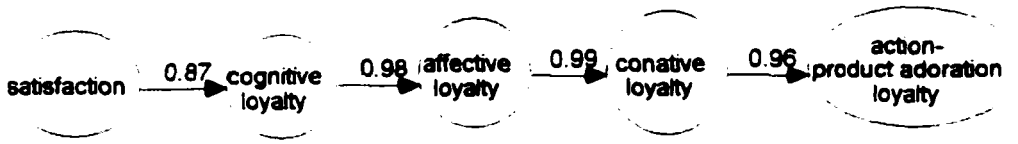
Hybrid Model Analysis

Structural model analysis in the mall study began with the full model, which included satisfaction and all of the loyalty constructs. This analysis is not applicable to the cross-cultural student study for two reasons. First, neither the community nor the virtual community construct survived confirmatory factor analysis. Second, an attempt to merge the tc constructs into a community-virtual community construct in confirmatory factor analysis failed. Thus, structural analysis begins with the five factor CTA loyalty model.

CTA (Five Factor) Loyalty Model

Initially the satisfaction, cognitive loyalty, affective loyalty, conative loyalty, and action-product adoration loyalty constructs were entered into a structural model in the same form that they attained in confirmatory factor analysis (see Figure 7.1). Model fit was chi-square = 677.905 (331df), p = 0.000, and chi-square/df = 2.048. In its initial form the model did not account for any of the overlap between the constructs that Oiver (1999) believed existed. These overlaps are incorporated in the

FIGURE 7.1
HYBRID MODEL
CROSS-CULTURAL STUDENTS SURVEY
FULL MODEL
STANDARDIZED ESTIMATES
Chi-Square = 469.656 (318 df)
p = .000
Chi-Square/df = 1.477



model through the use of the modification indices table. Many of the covariances entered into the model have face validity. For instance, delight with one's financial services provider is closely associated with liking the provider. The cognitive loyalty construct is closely associated with delight with one's financial services provider. And liking one's provider is closely associated with the feeling that one obtains superior benefits from one's provider. Final model fit for the CTA five factor model was chi-square = 469.656 (318df), p = 0.000, and chi-square/df = 1.477. Fit statistics for the model are listed in Table 7.5.

Table 7.5

Structural Model Data

Model	Chi-Sq/df	*p*	GFI	NFI	CFI	AGFI	RMSEA
CTA 5	1.477	0.000	0.897	0.918	0.971	0.868	0.042
CTA 4	1.614	0.000	0.908	0.926	0.970	0.876	0.047
F-C	1.626	0.004	0.954	0.963	0.985	0.927	0.048

Table 7.6

Chi-Square Difference Tests

Models Compared	*p*
CTA 5 Factor vs. 4 Factor	0.145 (n.s.)
CTA 4 Factor vs. F-C	0.000 (sig.)
CTA 5 Factor vs. F-C	0.000 (sig.)

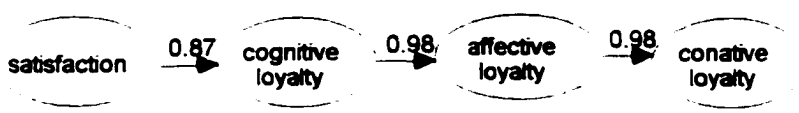
Abridged (Four Factor) CTA Model

The next step in the analysis was to test the CTA loyalty model without the action-product adoration loyalty construct (see Figure 7.2). Doing so makes possible a comparison between the cross-cultural student survey and the mall survey four factor CTA model. Doing so also respects the argument that the action-product adoration loyalty construct is actually a pure product adoration or

fortitude loyalty construct, and that there is no action loyalty construct.

Analysis began with the four constructs (satisfaction, cognitive loyalty, affective loyalty, and conative loyalty) entered into a structural model in the same form they attained in confirmatory factor analysis. Fit statistics were chi-square = 544.412 (234df), p = 0.000, and chi-square/df = 2.327. In this configuration the model did not

FIGURE 7.2
HYBRID MODEL
COGNITIVE-CONATIVE LOYALTY MODEL
(CTA 4 FACTOR MODEL)
STANDARDIZED ESTIMATES
Chi-Square = 360.008 (223 df)
p = .000
Chi-Square/df = 1.614



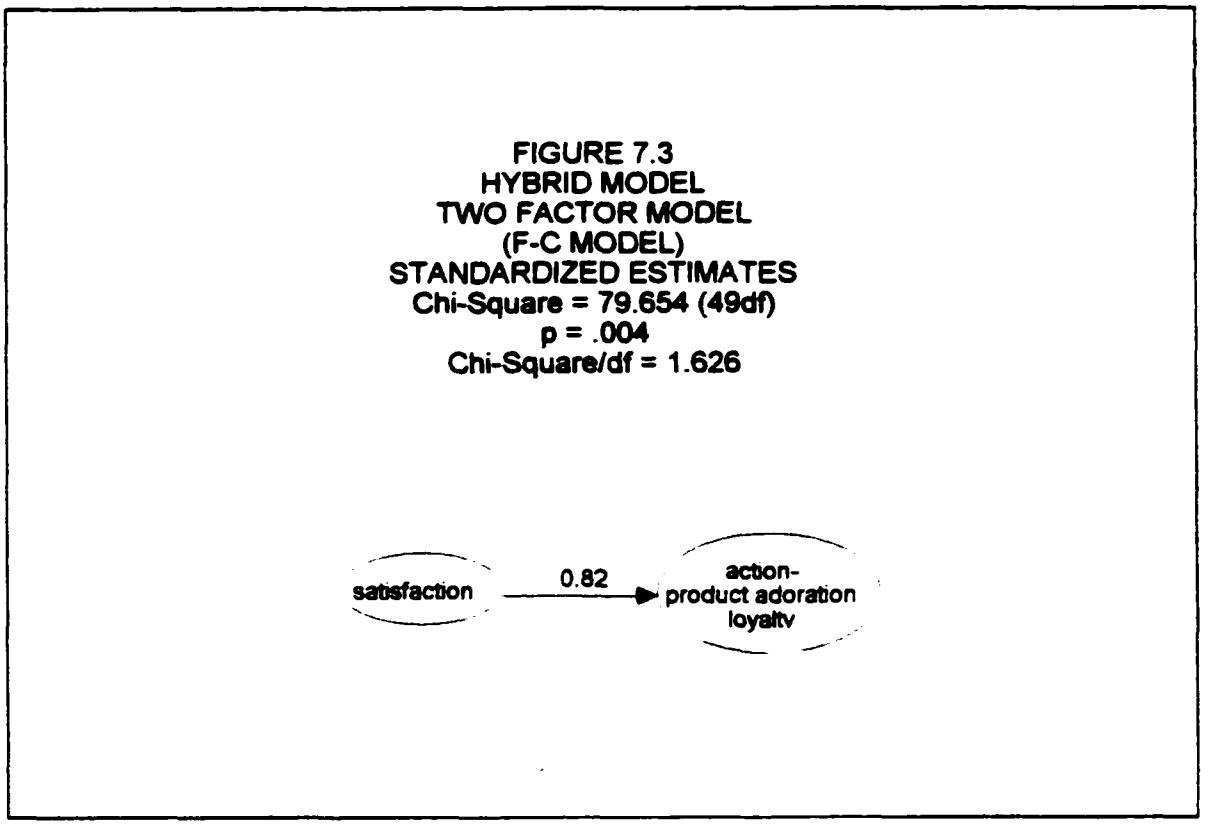
account for any of the overlap between constructs that Oliver (1999) believed were likely to occur. These overlaps were incorporated in the model by consulting the

modification indices table. Also note that all of the applicable covariances identified in the CTA five-factor model were incorporated in the CTA four-factor model. Final model fit was chi-square = 360.008 (223df), p = 0.000, chi-square/df = 1.614. Fit statistics for the model are listed in Table 7.5.

F-C Loyalty Model

Because a community and/or virtual community construct did not emerge from confirmatory factor analysis, there is no F-C loyalty model in this study; what remains is an action-product adoration loyalty construct. And one can argue as to whether the construct is actually an action loyalty construct or product adoration-fortitude loyalty construct. Thus, a test of a model composed of the satisfaction and action-product adoration constructs is necessary to not only test what is arguably the surviving portion of the model, but also compare the results of the cross-cultural student survey with the mall patrons survey.

The model is much smaller than the CTA five- and four-factor models, and hence analysis is conducted very quickly (see Figure 7.3). Initially covariance within face validity between the delight variable in the satisfaction construct and the action-product adoration construct was identified and incorporated in the model. Fit for the model was chi-square = 79.654 (49df), p = 0.004, and chi-



square/df = 1.626. Fit statistics for the model are listed in Table 7.5.

Comparing the Models

Following the practice employed in the mall patrons survey, three chi-square difference tests were conducted to obtain a sense of which model best described the data. First, the abridged F-C model (excluding community and/or virtual community loyalty) is a significantly better explanation of the data than both of the CTA five factor models (see Table 7.6).

Next, the CTA five factor model is compared with the CTA four factor model. As was mentioned before, this is

done to address the issue regarding whether the action-product adoration loyalty construct rightfully belongs in the CTA model. In the cross-cultural student survey the difference in fit between the CTA five- and four-factor models is insignificant.

The third chi-square difference test is between the CTA four-factor model and the abridged F-C model (without community and/or virtual community loyalty). This test is necessary to determine whether one of the three models in this survey has the best overall explanatory power. The difference between the fit of the CTA four-factor model and the abridged F-C model is significant.

The issue regarding the "best model" has a qualitative as well as a quantitative component. Structural equation modeling is a statistical analysis methodology which seeks parsimony; hence, parsimonious models "best" explain the data. In problem-solving and improving firm performance, qualitative solutions that are richer in content are preferred: the "best" explanation is the CTA five factor model. Thus, the results are equivocal. The parsimonious explanation is the abridged F-C model, and the content-rich explanation is the CTA five-factor model.

Hypothesis Testing

Hypothesis one introduces the assertion that there is a positive relationship between satisfaction and loyalty, and that there is a positive relationship between the

various forms of loyalty. The relationships specified by H_{1a} through H_{1c} are tested by examining the relevant path coefficient in the CTA four- and five-factor models; H_{1d} is testable by examining the relevant path coefficient in only the CTA five factor model. Hypothesis H_{1a} states that there is a positive relationship between satisfaction and cognitive loyalty. The path coefficient between satisfaction and cognitive loyalty in both models is positive, thus H_{1a} is supported. Hypothesis H_{1b} specifies a positive relationship between cognitive loyalty and affective loyalty. The path coefficient between cognitive and affective loyalty in both models is positive; H_{1b} is supported. Hypothesis H_{1c} asserts a positive relationship between affective loyalty and conative loyalty. The relevant path coefficient in each model is positive, and H_{1c} is supported. Lastly, H_{1d} specifies a positive relationship between conative and action loyalty. Technically, there is no action loyalty construct, because action loyalty was replaced by an action-product adoration construct. In a technical sense H_{1d} can not be tested and can not be supported. However, if the action-product adoration loyalty construct is considered an acceptable approximation of the action loyalty construct, H_{1d} is tested by examining the path coefficient between the conative and action-product adoration loyalty construct. The path coefficient is positive, and H_{1d} is supported as

qualified by the modification in the definition of the construct.

Hypothesis H_2 specifies a positive relationship between consumer fortitude and action loyalty. Because the two constructs were merged there is no path coefficient to test; however, all four of the regression weights are positive, indicating an additive contribution by each to the action-product adoration loyalty construct. Thus H_2 is not supported as originally specified and intended, but the hypothesis is supported as qualified.

Hypothesis H_3 asserts a positive relationship between community loyalty and action loyalty. The community loyalty constructs did not survive confirmatory factor analysis, thus H_3 is not supported.

In the cross-cultural student survey three models were tested. All of the path coefficients in all three models were positive, confirming the notion that satisfaction is positively related to loyalty, and the various forms of loyalty are positively related to one another.

Cross-Cultural Student Survey Summary

The cross-cultural student study began with 17 satisfaction and 72 loyalty variables in one satisfaction and seven loyalty constructs. After structural analysis was concluded the satisfaction construct and four loyalty constructs emerged, composed of eight satisfaction and 20 loyalty variables. Most of the attrition occurred among

the less developed scales: action loyalty (nine variables), fortitude loyalty (nine variables), community loyalty (11 variables-the entire scale), and virtual community loyalty (12 variables-the entire scale). Most of the attrition took place in the course of criterion validity analysis. The degree of overkill in the original satisfaction scale meant that nine variables were eliminated without sacrificing reliability or validity. Oliver's (1999) assertion that most firms find community loyalty difficult, if not impossible to achieve, was confirmed. The discovery that college students do not recognize a sense of community with fellow customers of their financial services provider is not altogether surprising. The merger of the action and fortitude loyalty constructs confirms another issue raised by Oliver (1999), specifically that the overlap between the two forms of loyalty are so great that they are indistinguishable from one another. Two versions of the CTA model have been found to be reliable and valid structural models. An abridged F-C loyalty model was also found to be a reliable and valid structural model. This study also provides a modest degree of external validity to the CTA and F-C loyalty models.

Comparison of the Two Studies

The most important differences between the mall patron survey and the cross-cultural student survey were sample size, gender, and age distribution. The student survey has

Table 7.7

Statistical Comparison

	Mall	Student
Respondents	194	276
Gender		
Women	62.4%	47.1%
Men	37.6%	52.9%
Age		
18-25	37.1%	83.3%
26-35	29.4%	14.1%
36-55	28.4%	2.2%
56 & Over	4.6%	0.0%

a much larger number of participants than the mall survey. Women dominate the mall survey, while the sexes are almost evenly split in the student survey. And the age distribution of respondents is more representative of the population in the mall survey than the student survey, which is heavily dominated by respondents in the 18 to 25 age group.

These different sample characteristics did not affect the outcome of hypothesis testing; in this respect the

outcome of the two studies was identical. But there are minor differences in the full models obtained in the mall patrons and cross-cultural student surveys. In the confirmatory factor analysis of the mall survey, the action loyalty variables did not survive the testing of the action-product adoration scale. The result was a product adoration construct. The cross-cultural students survey produced an action-product adoration construct composed of not only the same twc product adoration variables, but also two action loyalty variables. Why were the two action loyalty variables reliable and valid in the survey of business administration undergraduates, and not so in the mall patrons survey? One of the action variables addresses consumer inertia, "I would rather stay with my financial services provider than change to another one I am not very sure of." The second action variable refers to action taken on behalf of the consumer, "When I have a financial problem my primary financial provider helps me solve it." One possible reason for the absence of these two variables in the mall patrons survey is sample size. There are 82 more respondents in the cross cultural student survey than the mall patrons study, and thus the likelihood that these two variables contribute to construct validity could be greater.

Oliver (1999) argues that the attainment and maintenance of community loyalty by a firm is a rare

achievement. While the community-virtual community construct emerged from confirmatory factor analysis in the mall survey, community-virtual community failed to do so in the student survey. Putnam (2000) bemoaned the decline in community spirit since 1965, and attempted to measure social capital. Perhaps the older respondents in the mall survey made possible the survival of the community-virtual community construct, while the dominance of 16 to 25 year olds may have been indicative of a lack of a perceived relationship between the customers of their financial services provider. Relationship longevity with the financial service provider does not appear to account for the failure of the community constructs to survive confirmatory factor analysis, as the pattern of relationship longevity among respondents of both studies is similar.

Since there are differences between the two studies in the measurement models and the structural models, are there also differences in model fit? Chi-square difference studies were conducted on two of the mall patron study models versus one of the student study models to determine whether there are significant differences in fit. Results of the chi-square difference tests between the models of the two surveys indicate that although there are differences in the two models, they are not significant.

Table 7.8

Chi-Square Difference Tests

Models Compared	*p*
Student Survey F-C vs. Mall Survey F-C	0.919(n.s.)
Student Survey F-C vs. Mall Survey CTA 4 Factor	0.774(n.s.)

CHAPTER VIII

CONCLUSION

As was said at the outset, satisfaction just is not good enough anymore (Oliver 1999). A known characteristic of the satisfaction construct is that the absence of dissatisfaction becomes satisfaction, if only to a mild degree. Thus satisfied customers often switch brands, and the only customers that matter are those who are loyal, i.e., provide the firm with repeat business. This research sought to determine 1.) whether the CTA and F-C loyalty models were reliable and valid, and 2.) whether one model was superior to the other. The CTA loyalty model proposes that satisfaction is positively related to cognitive loyalty, and that loyalty can be classified according to its strength. In ascending order of strength the categories are cognitive, affective, conative, and action loyalty. The F-C loyalty model proposes that satisfaction is positively related to fortitude loyalty and community loyalty; these two types of loyalty are very strong, and difficult to achieve.

The results of two empirical tests indicate that the CTA and F-C loyalty models are reliable and valid, albeit

in modified form. As expected, the hypothesized positive relationships between satisfaction and cognitive loyalty, cognitive loyalty and affective loyalty, and affective loyalty and conative loyalty are supported in two empirical studies in the United States and Mexico. However, the hypothesized positive relationship between conative loyalty and action loyalty is not supported in the mall survey and receives only qualified support in the cross-cultural student survey. The hypothesized positive relationship between fortitude loyalty and action loyalty is also not supported in the mall survey and receives only qualified support in the cross-cultural student survey. Lastly, the hypothesized positive relationship between community and action loyalty is not supported in either study.

Equally unexpected is the realization that there is confirmation of Oliver's (1999) loyalty frameworks from the hypotheses that are not supported or obtained partial support, as well as confirmation from the hypotheses that are supported. Specifically, Oliver (1999) asserts that the stronger forms of loyalty are more difficult to attain, and that the boundary between action loyalty and fortitude loyalty may not be distinct. He also believes that community loyalty is rarely achieved. The results of hypothesis testing confirm these assertions. Less evidence was found of the stronger forms of loyalty, and difficulty was encountered in distinguishing between action and

fortitude loyalty. A combination of unconfirmed and confirmed hypotheses also suggests that the measures employed in this research are isomorphic with reality (Kerlinger 1992). If so, this research is the beginning of a long term process that will eventually give "reason to believe that something like the entities and structure postulated" (Hunt 1991) in the CTA and F-C loyalty models "actually exists." Hence, the work begun by Oliver (1997; 1999) and empirically tested here may eventually become part of a theory of loyalty development.

The CTA Versus the F-C Model

Which loyalty model is superior? Chi-square difference tests always favor the more parsimonious model. In such tests the F-C model will nearly always be found statistically better (more parsimonious). But the issue is model design, not the quantity and quality of information, or the enhancement of customers' loyalty. The CTA model explains the way in which continued patronage over time can result in incremental strengthening of consumer loyalty, culminating in nearly unshakeable allegiance. Its competitor is the F-C model, which describes the means by which loyalty can be maximized. Of the two the CTA model contains the information firms need to obtain and retain customers. Likewise, the CTA model provides scholars with a framework for measuring loyalty formation, and thus provides them with more information regarding consumer

loyalty. For these reasons the CTA is the superior loyalty model.

Contributions to the Literature

This research advances the study of consumer behavior and services marketing in five ways. First, the CTA and F-C loyalty models describe relationships between satisfaction and forms of loyalty. These forms of loyalty describe customer thoughts, feelings, beliefs, intentions, and actions regarding branded products.

Second, this research provides five reliable and valid scales to test these various forms of loyalty. Of particular importance are the conative, action, fortitude, community, and virtual community loyalty questionnaire items, which heretofore have not been employed. Particularly difficult problems in the creation of the community and virtual community scales were overcome.. These variables should be suitable for use in future surveys of satisfaction and loyalty among the clientele of financial service providers.

The third contribution is the original questionnaire employed in this research (see Appendix A), which is designed for use in the financial services industry. This instrument can now be modified and adapted by scholars for satisfaction-loyalty research in the context of other industries.

Fourth, the work conducted here provides financial services firms with a means of evaluating the satisfaction and loyalty of their customers. There are valuable practical applications for the marketing strategy of companies that test satisfaction and loyalty with this instrument. For instance, many banks and credit unions advertise loan and deposit promotions that offer very competitive rates, or "free" checking. The cognitive loyalty construct recognizes that the customers who begin doing business with a firm in response to such price-based appeals are vulnerable to subsequent appeals by competitors. The CTA and F-C loyalty models provide firms guidance regarding non-price promotional appeals that will encourage an emotional bond between customers and the firm, and stronger bonds of loyalty. Firms can promote even stronger loyalty with promotional appeals that encourage conative, action-product adoration, and community loyalty. The largest credit union in the Rio Grande Valley is already doing so. From the perspective of marketing managers in the financial services industry this research has reached the confirmatory stage. Implications for scholarly research are addressed under "Limitations."

Lastly, this research tested the CTA and F-C loyalty models with four sample frames: U.S. business administration students, credit union members, mall patrons, and Mexican business administration students. The

U.S. and Mexican business administration students were combined in a cross cultural study. Considered singly each of these sample frames is not generalizable to the population, but when they are viewed as a group of three studies they are a remarkably diverse cross-section of the U.S.-Mexico border region. As future young professionals the 276 students will soon be a lucrative market segment for financial service providers. The 194 mall patrons are more diverse than the students with respect to age, and thus are more generalizable to the population. The 195 credit union members who provided usable questionnaires are also more generalizable to the population than the students. A unique aspect of this sample is a larger participation by people over the age of 55 than the other studies. Participation of women and men is nearly even (48.4% are women), which also contributes to the generalizability of the sample. In this research the limitations of each study were at least partially addressed in a subsequent study. When the fourth and final study was completed most of the shortcomings in the design of each individual effort had been offset in another study, enhancing the overall generalizability and validity of this research.

One unexpected but interesting detail from the mall patrons study was that a small number of respondents specified finance companies as their primary financial

services provider. This discovery is an important revelation for banks, credit unions, and thrift institutions. The surprising finding from the credit union study is that although it is composed entirely of credit union members, only 46.7 percent specified that the institution that sponsored the survey is their primary financial services provider (a much higher level was expected). Hence the credit union group is more generalizable to the population than many people would have expected.

Limitations

This research administered a satisfaction and loyalty questionnaire to business administration undergraduate students. Surveys were distributed at a university in the Southern United States, and two universities in Mexico-one in the central and the other in the northern region of the country. The questionnaire was also administered to mall patrons. The data was subjected to structural equation analysis and a number of models were constructed. Nothing in this research implies in any way that a causal model has been constructed, nor should any reader conclude that causal relationships are identified.

When research is conducted to address the satisfaction and loyalty of the customers of financial service providers the results are not generalizable to other firms such as restaurants, grocery stores, and automobile dealers.

Hence, this research is generalizable only to the financial services industry in the locations where the studies were conducted. From the perspective of marketing scholars this research remains in the exploratory stage of development.

Student surveys are generally criticized for a lack of generalizability: their responses may not be generalizable to the adult population in their communities, and they be generalizable to the population of Mexico or the United States. The limitation in this research is less of a problem than in other student surveys, as the mall patrons survey provides ample opportunity to compare the results with a sample that is more diverse in age.

Lastly, the subjects who participated are self-selected: the large number of questionnaires that were not completed indicated that some individuals lost interest or patience and decided to stop participating prior to completing the form. Possibly the individuals who did not complete or turn in their questionnaires were ambivalent about the relationship with their financial services provider, creating a bias in the results that is not readily determined or measured. Since voluntary participation is the only means allowed under ethical research practices, it is an inherent and necessary limitation.

Recommendations for Future Research

The financial services industry was surveyed in this research because the student is very familiar with it. The industry is also a good subject for the study of satisfaction and loyalty because financial services are obtained on an ongoing basis (i.e., checking accounts and credit cards), or at least for an extended period of time (i.e., mortgages and auto loans). In consulting the literature to construct the original survey instrument all of the questions were adapted to the industry and the products and services offered by financial service providers. Both the CTA and F-C loyalty models were found to be reliable and valid, albeit in forms that were different than anticipated. The questionnaire should be adapted to test the two loyalty models in industries other than financial services. Doing so will test the assertion in this research that many of the items in the action, fortitude, community, and virtual community loyalty scales were neither reliable nor valid because they were not applicable to loyalty toward financial service firms. Marketing scholars are encouraged to contribute to the accumulation of external validity of the CTA and F-C loyalty models.

It is clear that not enough empirical research has been conducted to determine whether the CTA and F-C models as defined by the questionnaire in this research are

generalizable to the United States. Seminal works in scale development (e.g., Parasuraman, Zeithaml, and Berry 1988; Shimp and Sharma 1987) conducted regional surveys throughout the country to do so. A similar procedure for the CTA and F-C models would consume more time than is available for this effort. This researcher intends to continue the pursuit of external validity of this survey instrument; other scholars are encouraged to do so as well.

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APPENDIX A

ORIGINAL QUESTIONNAIRE

DEMOGRAPHIC ITEMS

1.) What type of financial institution is your primary financial services provider?

a.) bank b.) credit union c.) savings and loan
d.) securities firm

2.) The name of your primary financial services provider is _____

3.) Number of years you have done business with your primary financial services provider.

a.) less than 1 year b.) 1-2 years c.) 3-5 years
d.) 6-10 years e.)more than 10 years

4.) Your age.

a.) 18-25 b.) 26-35 c.) 36-55 d.) 56-65
e.) over 65

5.) Your gender.

a.) Female b.) Male

6.) Your residential zip code.

_____

7.) Residence:

a.) own a house (with or without a mortgage)
b.) own a condominium or apartment (with or without a mortgage)
c.) rent a house
d.) rent an apartment or condominium
e.) other (please specify _____

8.) Please circle all of the services of your primary financial services provider that you use.

a.) checking account
b.) savings account
c.) certificate of deposit
d.) money market savings account
e.) individual retirement account (IRA)
f.) debit card
g.) ATM card
h.) safety deposit box
i.) signature guarantee
j.) stocks/bonds/mutual funds
k.) life/auto/homeowner's insurance
l.) credit card
m.) overdraft line of credit
n.) unsecured loan
o.) auto loan
p.) real estate loan
q.) mobile home loan
r.) other (please specify) _____

(Note: In return for sponsoring the study the credit union wants to obtain certain information about its members for planning future product promotions.)

SATISFACTION ITEMS

Please state your opinion regarding the following questions using the following scale from 1 to 5:

1	2	3	4	5
Disagree				Agree

1.) My primary financial services provider is one of the best in the Rio Grande Valley.

1 2 3 4 5

2.) My primary financial services provider exactly suits my financial needs.

1 2 3 4 5

3.) My primary financial services provider hasn't helped me as much as I thought it would.

1 2 3 4 5

4.) I am satisfied with the choice of my primary financial services provider.

1 2 3 4 5

5.) Sometimes I have mixed feelings about staying with my primary financial services provider.

1 2 3 4 5

6.) My choice of a primary financial services provider was a good one.

1 2 3 4 5

7.) If I could do it over again I would choose another primary financial services provider.

1 2 3 4 5

8.) I have truly enjoyed doing business with my primary financial services provider.

1 2 3 4 5

9.) I feel bad about my choice of a primary financial services provider.

1 2 3 4 5

10.) My primary financial services provider exceeded my highest expectations.

1 2 3 4 5

11.) I am not happy about my choice of a primary financial services provider.

1 2 3 4 5

12.) Doing business with my primary financial services provider has been a good experience.

1 2 3 4 5

13.) I am sure I did the right thing in doing business with my primary financial services provider.

1 2 3 4 5

14.) My primary financial services provider gives me a great deal of delight.

1 2 3 4 5

15.) I am pleased with my primary financial services provider's performance.

1 2 3 4 5

16.) Doing business with my primary financial services provider is a source of contentment for me.

1 2 3 4 5

17.) Doing business with my primary financial services provider gives me a sense of relief from worrying about my financial affairs.

1 2 3 4 5

Source: Adapted from Oliver (1997)

LOYALTY ITEMS

Please state your opinion regarding the following questions using the following categories from 1 to 5:

1 2 3 4 5
Disagree Agree

Part 1-Cognitive Loyalty

1.) I will continue to do business with my primary financial services provider because their fees and charges are less expensive than other financial institutions.

1 2 3 4 5

2.) I will continue to do business with my primary financial services provider because they charge the lowest interest rates on loans.

1 2 3 4 5

3.) I will continue to do business with my primary financial services provider because they pay the highest rates on deposit accounts.

1 2 3 4 5

4.) I will continue to do business with my primary financial services provider because they treat me like a very important person.

1 2 3 4 5

5.) The benefits provided by the services of my primary financial services provider are better than those provided by other financial services providers.

1 2 3 4 5

6.) I will be more likely to change my primary financial services provider if fees and charges are less expensive at another financial services provider.

1 2 3 4 5

7.) I will be more likely to change my primary financial services provider if interest rates on loans are lower at another financial services provider.

1 2 3 4 5

8.) I will be more likely to change my primary financial services provider if interest rates on deposit accounts are higher at another financial services provider.

1 2 3 4 5

9.) I am more likely to change my primary financial services provider if another institution provides superior benefits in return for my patronage.

1 2 3 4 5

10.) I am more likely to change my primary financial services provider if another institution treats me better.

1 2 3 4 5

11.) Small mistakes made by my primary financial services provider do not bother me.

1 2 3 4 5

Adapted from Oliver (1997)

Part 2-Affective Loyalty

1.) I am elated by the way I am treated at my primary financial services provider.(liking)

1 2 3 4 5

2.) My primary financial services provider has made me very happy.(sat.)

1 2 3 4 5

3.) I feel relaxed at my primary financial services provider.(liking)

1 2 3 4 5

4.) The mistakes made by my primary financial services provider upset me.(dissatisfaction)

1 2 3 4 5

5.) I care about the image of my primary financial services provider.(involv.)

1 2 3 4 5

6.) Being treated like a very important person means a lot to me.(involv.)

1 2 3 4 5

7.) The selection of my primary financial services provider was an important decision.(involv.)

1 2 3 4 5

8.) My primary financial services provider does a better job of taking care of me than other financial institutions I have dealt with.(preference)

1 2 3 4 5

9.) I have grown to like my primary financial services provider more than other financial institutions.(preference)

1 2 3 4 5

10.) I choose my primary financial services provider very carefully.(involv.)

1 2 3 4 5

11.) The primary financial services provider I use matters to me a lot.(involv.)

1 2 3 4 5

Adapted from Oliver (1997); Beatty et al. (1988); Mittal and Lee (1989)

Part 3-Conative Loyalty

1.) I intend to continue to rely on my primary financial services provider.(commit.)

1 2 3 4 5

2.) Basically all financial services providers are the same.(commit.-reverse)

1 2 3 4 5

3.) I consider myself to be very loyal to my primary financial services provider.(commit.)

1 2 3 4 5

4.) My primary financial services provider very seldom disappoints me.

1 2 3 4 5

5.) My primary financial services provider can satisfy all of my financial needs.

1 2 3 4 5

Adapted from Oliver (1997); Beatty et al. (1988); Mittal and Lee (1989)

Part 4-Action Loyalty

1.) My primary financial services provider is the only institution in which I deposit money (excluding investments in stocks, bonds, and mutual funds).(proneness)

1 2 3 4 5

2.) When I need a loan I get it from my primary financial services provider.(proneness)

1 2 3 4 5

3.) When I have a financial problem my primary financial provider helps me solve it.

1 2 3 4 5

4.) I prefer to maintain accounts with a number of different financial services provider for the sake of comparison.(switching, info-seek)

1 2 3 4 5

5.) I would rather stay with my primary financial services provider than change to another one I am not very sure of.(switching, proneness)

1 2 3 4 5

6.) I rarely use the services of a financial institution other than my primary financial services provider.(proneness)

1 2 3 4 5

7.) I get bored with my primary financial services provider, even though it serves me well.(proneness, switching)

1 2 3 4 5

8.) I could get tired of doing business with the same primary financial services provider after a very long time.(proneness)

1 2 3 4 5

9.) I would prefer to stay with my primary financial services provider even if a problem crops up, rather than switch institutions every few years.(proneness)

1 2 3 4 5

10.) A lot of the time I feel the urge to do business with a financial institution other than my primary financial services provider.(proneness, switching)

1 2 3 4 5

11.) If I had a lot of money I would probably like to open accounts with many different financial institutions instead of keeping all of my funds with my primary financial services provider.(proneness, switching)

1 2 3 4 5

Adapted from Oliver (1997); Raju (1980)

Part 5-Fortitude

1.) I get very bored listening to others talk about the financial institutions with which they do business.(info-seek)

1 2 3 4 5

2.) I like to learn about the services of financial institutions just to find out what they are offering.(info-seek)

1 2 3 4 5

3.) A new financial institution or branch office is not something I would be eager to find out about.(info-seek)

1 2 3 4 5

4.) I generally read even my junk mail just to know what it is about.(info-seek)

1 2 3 4 5

5.) I usually throw away mail advertisements without reading them.(info-seek)

1 2 3 4 5

6.) I don't care to find out from my friends the details of the services they obtain from other financial institutions.(info-seek)

1 2 3 4 5

7.) I often read advertisements just out of curiosity.(info-seek)

1 2 3 4 5

8.) I rarely read advertisements that just seem to contain a lot of information.(info-seek)

1 2 3 4 5

9.) When I find out about a new financial institution or branch office I take advantage of the first opportunity to learn more about it.(info-seek)

1 2 3 4 5

10.) I love my primary financial services provider.

1 2 3 4 5

11.) I depend upon my primary financial services provider to "be there" for me.

1 2 3 4 5

Adapted from Fournier 1998; Raju (1980)

Part 6-Community

1.) I would recommend my primary financial services provider to friends, relatives, and co-workers.

1 2 3 4 5

2.) Many of my friends, relatives, and co-workers also do business with my primary financial services provider.

1 2 3 4 5

3.) Being a customer of my primary financial services provider makes me feel like I am a member of a club or a special group.

1 2 3 4 5

4.) I spend a lot of time visiting friends.

1 2 3 4 5

5.) Most people can be trusted.

1 2 3 4 5

6.) Most people are honest.

1 2 3 4 5

7.) Being a member of a civic, social, or community organization is important to me.

1 2 3 4 5

8.) Performing volunteer work is important to me.

1 2 3 4 5

9.) I enjoy attending events sponsored by my primary financial services provider.

1 2 3 4 5

10.) Financially supporting nonprofit organizations is important to me.

1 2 3 4 5

11.) I think of at least one of the employees at my primary financial services provider as a friend.

1 2 3 4 5

12.) I personally know ___ people who are also customers of my primary financial services provider.

Adapted from the Social Capital Index (Putnam 2000); Fournier (1998); Friedman et al. (1993); Goodwin (1996)

INTERNET VIRTUAL COMMUNITY ITEMS

1.) My primary financial service provider has a web site.

a.) yes b.) no

If yes go to question #2, otherwise go to question #4.

2.) I access my primary financial services provider's web site approximately _____ times per week.

1 2 3 4 5 6 7 more than 7

3.) The approximate duration of each visit in minutes _____.

4.) If my primary financial services provider had a web site I would access it.

a.) yes b.) no c.) I already access the web site

Please state your opinion regarding the following questions using the following scale from 1 to 5:

1	2	3	4	5
Disagree				Agree

5.) I would like to contribute to the design/layout/content of my primary financial services provider's web site.

1 2 3 4 5

6.) I believe that I share a great deal in common with other customers of my primary financial services provider.

1 2 3 4 5

7.) I think my primary financial services provider should provide a compelling reason for me to visit their web site.

1 2 3 4 5

8.) I would like to obtain household budgeting and other personal finance instructional information from my primary financial services provider's web site.

1 2 3 4 5

9.) I would like to have opportunities to express my opinions regarding matters important to me on my primary financial services provider's web site.

1 2 3 4 5

10.) I would like to communicate with my friends, family members, and fellow customers through my primary financial services provider's web site.

1 2 3 4 5

11.) I would like to obtain information regarding current events in my community from my primary financial services provider's web site.

1 2 3 4 5

12.) I would like to communicate with employees of my primary financial services provider through their web site.

1 2 3 4 5

13.) I would like to advertise items I have for sale on my primary financial services provider's web site.

1 2 3 4 5

14.) I would consult listings of items for sale in my primary financial services provider's web site.

1 2 3 4 5

15.) I would like to advertise my business on my primary financial services provider's web site.

1 2 3 4 5

16.) I would like to participate in auctions and reverse auctions held on my primary financial services provider's web site.

1 2 3 4 5

APPENDIX B

CREDIT UNION SURVEY QUESTIONNAIRE

Please answer the following questions about your **Primary Financial Provider (PFI).** If you do business with more than one bank, credit union, securities firm, etc., your PFI is the one with which you conduct most of your financial business in terms of the number of transactions or the institution in which you keep most of your money.

1.) Which best describes your primary financial institution (pfi)?

a.) bank b.) credit union
c.) savings and loan d.) securities firm

2.) The name of your PFI is _____

3.) Number of years you have done business with your PFI.

a.) less than 1 year b.) 1-2 years c.) 3-5 yearsd.) 6-10 years e.)more than 10 years

4.) Your age.

a.) 18-25 b.) 26-35 c.) 36-55 d.) 56-65e.) over 65

5.) Your gender.

a.) Female b.) Male

6.) Your residential zip code.

_____

7.) Residence:

a.) own a house (with or without a mortgage)
b.) own a condominium or apartment (with or without a mortgage)
c.) rent a house
d.) rent an apartment or condominium
e.) live with a relative
f.) other (please specify) _____

8.) Please circle all of the services of your PFI that you use.

a.) checking account
b.) savings account
c.) certificate of deposit
d.) money market savings account
e.) individual retirement account (IRA)
f.) debit card
g.) ATM card
h.) safety deposit box
i.) signature guarantee
j.) stocks/bonds/mutual funds
k.) life/auto/homeowner's insurance
l.) credit card
m.) overdraft line of credit
n.) unsecured loan
o.) auto loan
p.) real estate loan
q.) mobile home loan
r.) other (please specify) _____

Please state your opinion regarding the following questions using the following scale from 1 to

1 2 3 4 5
Disagree Agree

9.) My PFI exactly suits my financial needs.

1 2 3 4 5

10.) My choice of a PFI was a good one.

1 2 3 4 5

11.) I have truly enjoyed doing business with my PFI.

1 2 3 4 5

12.) Doing business with my PFI has been a good experience.

1 2 3 4 5

13.) I am sure I did the right thing in doing business with my PFI.

1 2 3 4 5

14.) My PFI gives me a great deal of delight.

1 2 3 4 5

15.) I am pleased with my PFI's performance.

1 2 3 4 5

16.) I will continue to do business with my PFI because they charge the lowest interest rates on loans.

1 2 3 4 5

17.) I will continue to do business with my PFI because they pay the highest rates on deposit accounts.

1 2 3 4 5

18.) The benefits provided by the services of my PFI are better than those provided by their competitors.

1 2 3 4 5

19.) My PFI has made me very happy.

1 2 3 4 5

20.) I feel relaxed at my PFI.

1 2 3 4 5

21.) The selection of my PFI was an important decision.

1 2 3 4 5

22.) My PFI does a better job of taking care of me than other financial institutions I have dealt with.

1 2 5

23.) I have grown to like my PFI more than other financial institutions.

1 2 3 4 5

24.) I choose my PFI very carefully.

1 2 3 4 5

25.) The PFI I use matters to me a lot.

1 2 3 4 5

26.) I intend to continue to rely on my PFI.

1 2 3 4 5

27.) I consider myself to be very loyal to my PFI.

1 2 3 4 5

28.) My PFI can satisfy all of my financial needs.

1 2 3 4 5

29.) When I have a financial problem my PFI helps me solve it.

1 2 3 4 5

30.) I love my PFI.

1 2 3 4 5

31.) I depend upon my PFI to "be there" for me.

1 2 3 4 5

32.) I would recommend my PFI.

1 2 3 4 5

33.) Being a customer of my PFI makes me feel like I am a member of a club or a special group.

1 2 3 4 5

34.) I personally know ___ people who are also customers of my PFI.

35.) My PFI has a web site.

a.) yes b.) no

If yes go to question #36, otherwise go to question #38.

36.) I access my PFI's web site approximately _____ times per week.

1 2 3 4 5 6 7 more than 7

37.) The approximate duration of each visit in minutes _____.

38.) If my PFI had a web site I would access it.

a.) yes b.) no c.) I already access the web site

APPENDIX C

Encuesta

(SPANISH VERSION OF QUESTIONNAIRE)

Encuesta
Proveedores de Servicios Financieros

El objetivo de esta encuesta es conocer su opinión sobre las empresas o compañías que proporcionan servicios financieros. Su participación es muy importante, ya que sus impresiones, sentimientos, y experiencias nos ayudarán a mejorar la calidad de los servicios prestados por estas instituciones financieras.

Muchas gracias por regalarnos unos minutos de su tiempo. Recuerde que no existen respuestas correctas o incorrectas

El objetivo de la primera parte del cuestionario es el obtener información general sobre su compañía financiera. Si usted realiza actividades financieras con mas de una compañía, por favor conteste las siguientes preguntas basadas en la compañía con la cual realiza la mayoría de sus transacciones o en la cual tenga la mayor parte de su dinero.

1. ¿Cuál es su principal compañía financiera?
   a) Banco.
   b) Institución de crédito.
   c) Entidad de ahorro y préstamo.
   d) Institución de acciones / bonos.

2. ¿Cuál es el nombre de su principal compañía financiera? _____

3. ¿Cuál es su edad?
   a) 18 - 25 años.
   b) 26 - 35 años.
   c) 36 - 55 años.
   d) Mayor de 65 años.

4. ¿Cuál es su sexo?
   a) Femenino.
   b) Masculino.

5. ¿Por cuantos años ha estado realizando actividades financieras con esta compañía?
   a) Menos de un año.
   b) 1 -2 años.
   c) 3 -5 años.
   d) 6 - 10 años.
   e) mas de 10 años.

6. ¿Cuál es el código postal de su residencia?
   _____

7. ¿Cuál es el tipo su residencia?
   a) Propietario de una casa (con o sin hipoteca / deuda)
   b) Propietario de un condominio o apartamento (con o sin hipoteca / deuda)
   c) Renta una casa
   d) Renta un condominio o apartamento
   e) Otro (por favor especifique)_____

8. Por favor marque con un círculo todos los servicios que utiliza a través de su compañía financiera.
   a) Cuenta de cheques.
   b) Cuenta de ahorros.
   c) Inversiones a plazo.
   d) Fondo de inversión.
   e) AFORE o SAR.
   f) Tarjeta de débito.
   g) Tarjeta de cajero automático.
   h) Caja de seguridad.
   i)
   j) Acciones/ CETES/ fondos mutuos.
   k) Seguro de vida / seguro de auto/ seguro de casa.
   l) Tarjeta de crédito.
   m) Protección de sobregiro.
   n)
   o) Autofinanciamiento.
   p) Crédito hipotecario.
   q) Otro(por favor especifique.)_____

La segunda parte del cuestionario nos ayudará a conocer su opinión acerca de su compañía financiera.

Para responder las siguientes preguntas, por favor utilice la siguiente escala.

1 = En desacuerdo
2 = Un tanto en desacuerdo
3 = Neutral
4 = Un tanto de acuerdo
5 = De acuerdo

1. Mi compañía f[illegible] las mejores.
2. Mi compañía financiera satisface todas mis necesidades.
3. Mi compañía financiera no me ha ayudado tanto como yo esperaba.
4. Estoy satisfecho con la compañía financiera que escogí.
5. Algunas veces dudo sobre mi deseo de continuar con los servicios que me proporciona mi compañía financiera.

6. Hice una buena elección al preferir a mi actual compañía financiera.
7. Si pudiera elegir de nuevo, escogería a otra compañía financiera.
8. Estoy realmente complacido con todas mis actividades realizadas a través de mi compañía financiera.
9. Me siento mal por haber escogido a mi actual compañía financiera.
10. Los servicios proporcionados por mi compañía financiera superan mis expectativas.
11. No estoy contento con mi compañía financiera.
12. He tenido buenas experiencias al realizar negociaciones a través de mi compañía financiera.
13. Estoy seguro de que hice lo correcto al contratar a mi compañía financiera.
14. Recibo un trato amable por parte de mi compañía financiera.
15. Estoy contento con el desempeño de mi compañía financiera.
16. Hacer negocios o transferencias a través de mi compañía financiera me produce satisfacción.
17. Hacer negocios o transferencias a través de mi compañía financiera me da un sentido de alivio al no tenerme que preocupar por mis asuntos financieros.
18. Seguiré realizando mis actividades financieras con mi actual compañía porque sus cuotas y pagos por servicio son más bajos en comparación con otras compañías o empresas.
19. Seguiré realizando mis actividades financieras con mi actual compañía porque ellos tienen los intereses más bajos en préstamos.
20. Seguiré realizando mis actividades financieras con mi actual compañía porque ellos tienen los intereses mas altos en las cuentas de ahorros.
21. Seguiré haciendo mis actividades financieras con mi compañía porque ellos me tratan como una persona muy importante.
22. Los beneficios que proporciona mi compañía financiera son mejores que los otorgados por las otras empresas.
23. Probablemente cambiaría mi compañía financiera si las cuotas y los pagos por servicios fueran mas bajos en las otras compañías.
24. Probablemente cambiaría mi compañía financiera si los intereses en los préstamos fueran mas bajos en las otras compañías.
25. Probablemente cambiaría mi compañía financiera si los intereses en las cuentas de ahorro fueran mas altos en las otras compañías.

26. Probablemente cambiaría mi compañía financiera si las otras empresas me proporcionaran mejores beneficios a cambio de mi preferencia.
27. Probablemente cambiaría de compañía financiera si las otras empresas me trataran mejor.
28. Los pequeños errores cometidos por mi compañía financiera no me molestan.
29. Estoy muy satisfecho con la forma en que me trata mi compañía financiera.
30. Mi compañía financiera me ha hecho sentirme contento.
31. Me siento relajado al utilizar los servicios de mi compañía financiera.
32. Me molestan los errores cometidos por mi compañía financiera.
33. Me importa la imagen de mi compañía financiera.
34. El ser tratado como una persona importante significa mucho para mí.
35. La elección de mi compañía financiera fue una decisión muy importante.
36. Mi actual compañía financiera se desempeña mejor cuidando mis intereses que las otras compañías con las que anteriormente tuve trato.
37. He llegado al punto en el que puedo decir que mi actual compañía financiera me agrada mas que cualquier otra institución financiera.
38. Elijo a mi compañía financiera con mucho cuidado.
39. Mi principal compañía financiera significa mucho para mí.
40. Tengo la intención de continuar confiando en mi principal compañía financiera.
41. Prácticamente todas las empresas o compañías financieras son iguales.
42. Me considero un cliente leal a mi compañía financiera.
43. Mi compañía financiera raramente me decepciona.
44. Mi compañía financiera satisface todas mis necesidades financieras.
45. Deposito mi dinero (excluyendo inversiones en acciones, bonos, y fondos mutuos) únicamente en mi principal compañía financiera.
46. Cuando necesito un préstamo lo obtengo a través de mi principal compañía financiera.
47. Cuando tengo problemas financieros mi compañía financiera me ayuda a resolverlos
48. Prefiero tener cuentas con diferentes compañías financieras para comparar los servicios.
49. Prefiero quedarme con mi actual compañía financiera en lugar de cambiarme a otra con la que no me sienta seguro.

50. Raramente usc los se ci de otra institución que no sean los de mi principal compañía financiera.
51. Mi principal compañía financiera me aburre, aun y cuando me proporciona buenos servicios.
52. Podría cansarme del servicio de mi compañía financiera después de mucho tiempo.
53. Aun y cuando se presentara algún problema, preferiría quedarme con mi compañía financiera en lugar de tener que cambiar de empresa a cada rato.
54. Muchas veces tengo la urgencia de hacer negocios o transferencias en alguna otra institución financiera.
55. Si tuviera mucho dinero, probablemente abriría cuentas con diferentes instituciones financieras en lugar de tenerlo todo con mi actual compañía financiera.
56. Me aburre mucho escuchar a otros hablar sobre las instituciones con las que ellos realizan sus actividades financieras.
57. Me gusta aprender sobre los servicios que proporcionan las instituciones financieras con el fin de informarme sobre lo que ellos ofrecen.
58. Una compañía financiera nueva no me estimula a querer saber sobre ésta.
59. Generalmente leo toda mi correspondencia, incluyendo anuncios de promoción, con el fin de mantenerme informado.
60. Usualmente tiro a la basura toda la publicidad que recibo en mi correo sin leerla.
61. No me importa saber por mis amigos los detalles de los servicios que ellos obtienen a través de otras compañías financieras.
62. A menudo leo los anuncios simplemente por curiosidad.
63. Raramente leo los anuncios que parecen tener mucha información.
64. Cuando me entero de una nueva institución financiera o sucursal trato de obtener información acerca de esta en la primera oportunidad que tengo.
65. Me encanta mi actual compañía financiera.
66. Sé que mi compañía financiera "esta ahí" para auxiliarme.
67. Recomendaría mi compañía financiera a mis amigos, parientes y compañeros de trabajo.
68. Muchos de mis amigos, familiares, y compañeros de trabajo también realizan actividades financieras con mi compañía.

69. Ser cliente de mi compañía financiera me hace sentir que soy miembro de un club o de algún grupo especial.
70. Paso mucho tiempo visitando amigos.
71. Se puede confiar en la mayoría de la gente.
72. La mayoría de la gente es honesta.
73. Ser miembro de alguna organización social o comunitaria es importante para mí.
74. Realizar actividades como voluntario es importante para mí.
75. Disfruto al asistir a eventos patrocinados por mi compañía financiera.
76. Hacer donativos a organizaciones comunitarias o de beneficencia pública es importante para mi.
77. Considero a por lo menos uno de los empleados de mi compañía financiera como un amigo.
78. Personalmente conozco a ____ personas que también son clientes de mi compañía financiera.

Finalmente, el siguiente grupo de preguntas nos proporcionará información sobre su compañía financiera y el uso de las páginas de Internet.

Para responder las siguientes preguntas, por favor utilice la siguiente escala.

1 = En desacuerdo
2 = Un tanto en desacuerdo
3 = Neutral

1. Mi compañía financiera tiene página de Internet
   a) si b) no
   Si su respuesta es "no" pase a la pregunta 4.
2. Visito la página de Internet de mi compañía financiera ____veces por semana.
3. La visita dura aproximadamente _____minutos
4. Si mi compañía financiera tuviera una página de Internet la visitaría.
5. Me gustaría participar en el diseño / bosquejo / contenido de la página de Internet de mi compañía financiera.
6. Creo que tengo mucho en común con otros clientes de mi compañía financiera.
7. Creo que mi compañía financiera debería darme una buena razón para entrar a su página de Internet.
8. Me gustaría obtener información sobre gastos y presupuestos domésticos, así como información educativa sobre finanzas, a través de la página de Internet de mi compañía financiera.

9. Me gustaría tener la oportunidad de expresar mi punto de vista sobre lo que realmente me importa en la página de Internet de mi compañía financiera.
10. Me gustaría comunicarme con mis amigos, familia, y clientes a través de la página de Internet de mi compañía financiera.
11. Me gustaría obtener información sobre los eventos locales y temas de actualidad a través de la página de Internet de mi compañía financiera.
12. Me gustaría comunicarme con los empleados de mi compañía financieras a través de su página de Internet.
13. Me gustaría anunciar artículos que tengo a la venta a través de la página de Internet de mi compañía financiera.
14. Consultaría las listas de artículos que están a la venta en la página de Internet de mi compañía financiera.
15. Me gustaría anunciar mi negocio en la página de Internet de mi compañía financiera.
16. Me gustaría participar en subastas realizadas en la página de Internet de mi compañía financiera.

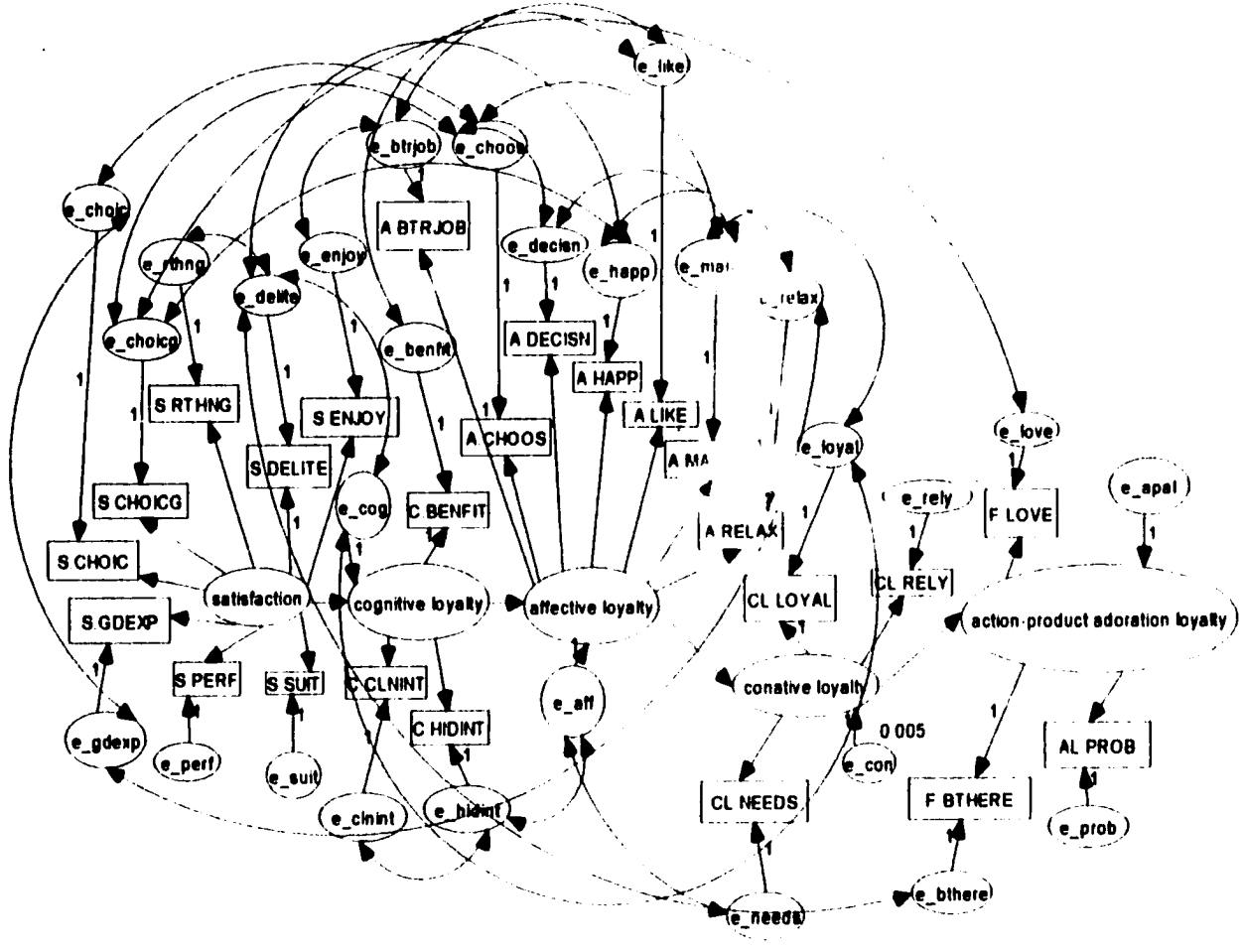
APPENDIX D

FIGURE A-1

U.S. STUDENTS PILOT STUDY

CTA MODEL

FIGURE A-1
U.S. STUDENTS PILOT STUDY
CTA MODEL
Model Specification



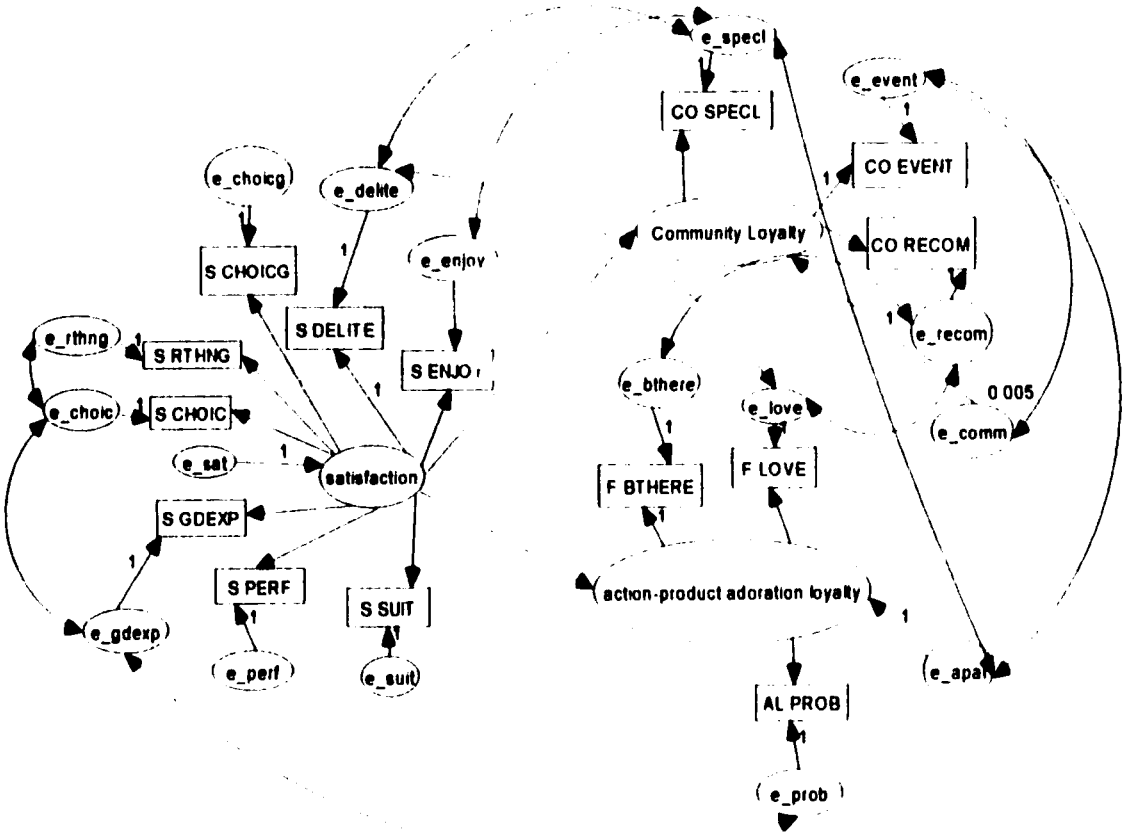
APPENDIX E

FIGURE A-2

U.S. STUDENTS PILOT STUDY

F-C MODEL

FIGURE A-2
U.S. STUDENTS PILOT STUDY
F-C MODEL
Model Specification



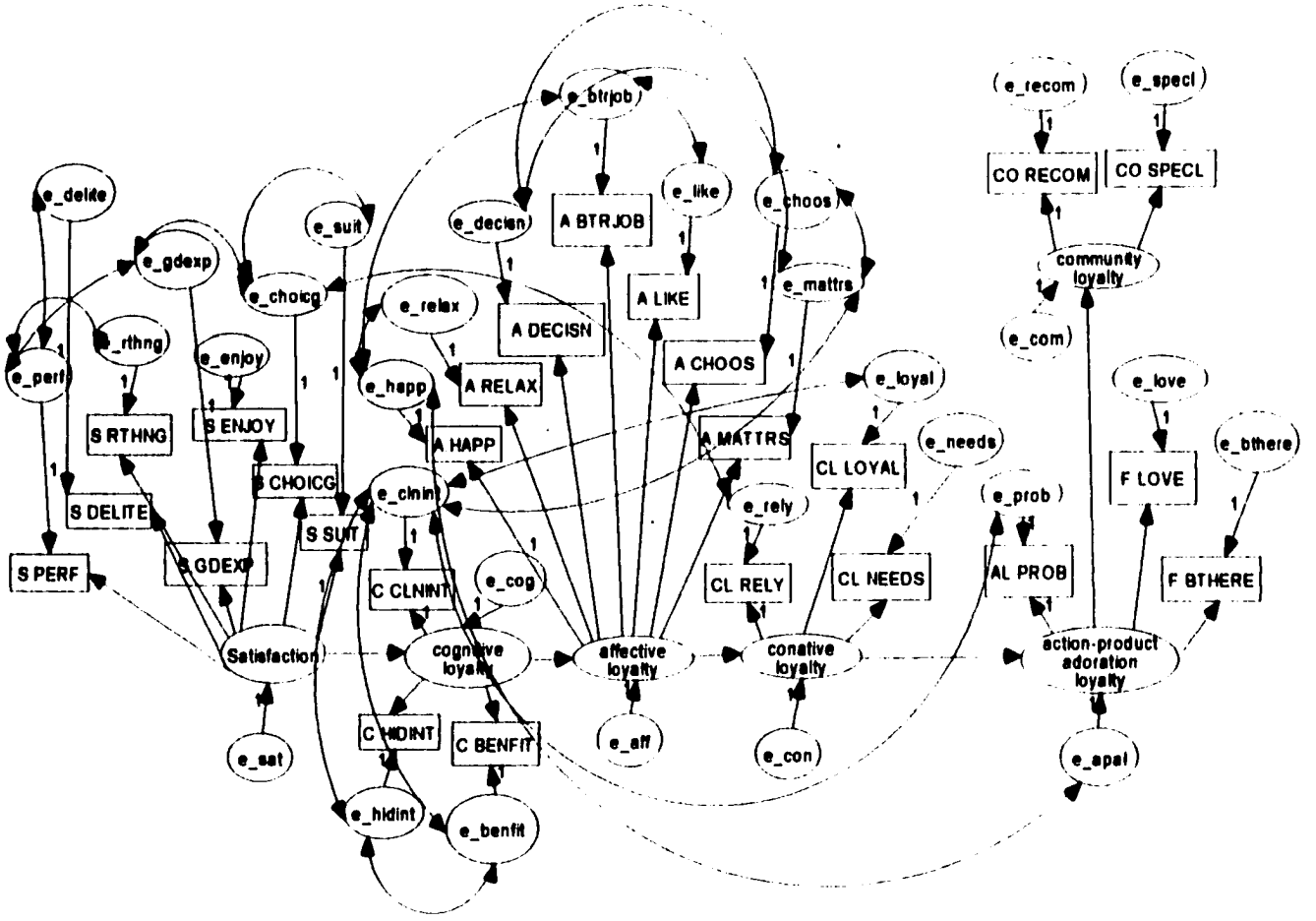
APPENDIX F

FIGURE A-3

CREDIT UNION STUDY

FULL MODEL

FIGURE A-3
CREDIT UNION STUDY
FULL MODEL
Model Specification



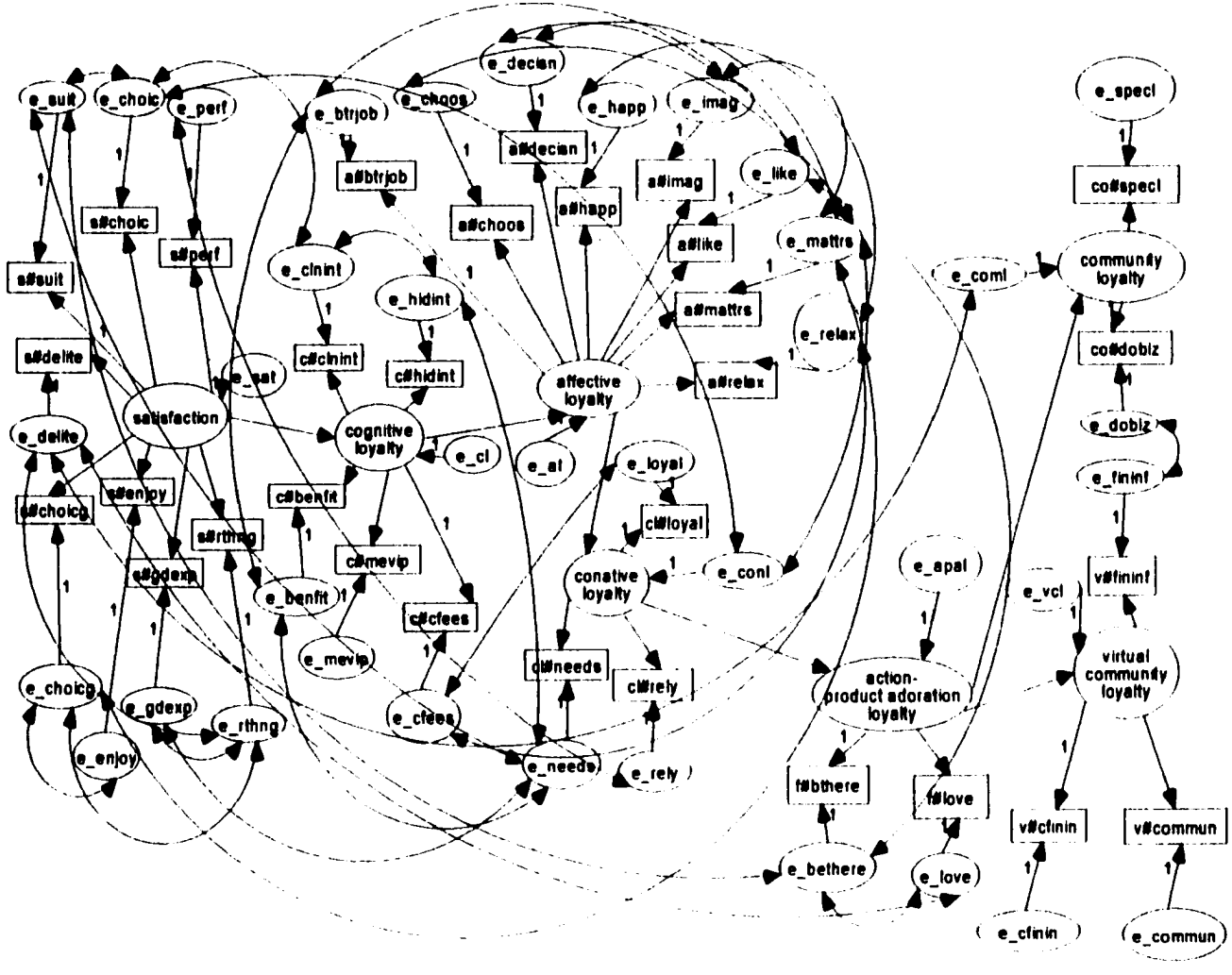
APPENDIX G

FIGURE A-4

MALL PATRONS STUDY

FULL MODEL

FIGURE A-4
MALL PATRONS SURVEY
FULL MODEL
Model Specification



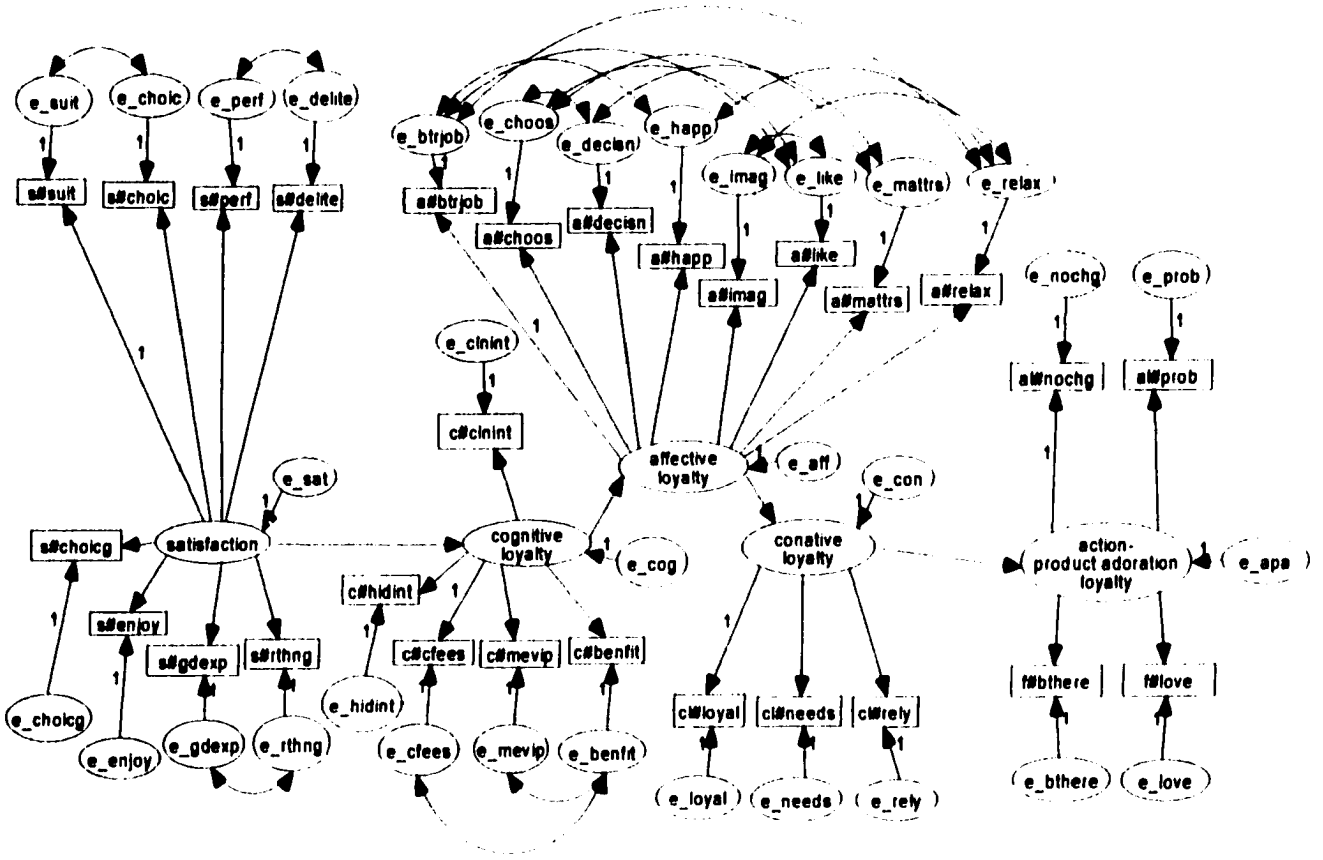
APPENDIX H

FIGURE A-5

CROSS-CULTURAL STUDENTS SURVEY

CTA MODEL

FIGURE A-5
CROSS-CULTURAL STUDENTS SURVEY
CTA MODEL
Model Specification



VITA

EDUCATION

UNIVERSITY OF TEXAS-PAN AMERICAN
Doctoral Program in Business with Emphasis in International Business
September 1995 to Present.
M.B.A., 1990-1994.

UNIVERSITY OF MISSISSIPPI
B.B.A., Banking and Finance, 1971-1975.

Ph.D. MAJORS

International Business and Marketing

TEACHING EXPERIENCE

Part-Time Lecturer, University of Texas-Pan American, 1997-Present.
Marketing Principles
International Business

AREAS OF TEACHING INTEREST

Services Marketing
Consumer Behavior
International Marketing
Marketing Strategy
Salesmanship
E-commerce

AREAS OF RESEARCH INTEREST

Customer Satisfaction and Loyalty
Services Marketing
Marketing Strategy
Consumer Ethnocentric Behavior
Cross-Cultural Research

PUBLICATIONS-REFEREED JOURNALS

--------- and Sameer Prasad, "International Sourcing and Logistics: An Integrated Model," *Logistics Information Management* (Volume 12, Number 6, 1999).

Additional Information Available on Request

Permanent Address: Route 25 Box 2570, Mission, Texas 78572