2009

Customer Satisfaction, Loyalty, and Repurchase: Meta-Analytical Review, and Theoretical and Empirical Evidence of Loyalty and Repurchase Differences.

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CUSTOMER SATISFACTION, LOYALTY, AND REPURCHASE:
META-ANALYTICAL REVIEW, AND THEORETICAL AND
EMPIRICAL EVIDENCE OF LOYALTY AND
REPURCHASE DIFFERENCES

By
Tamilla Curtis

A DISSERTATION

Submitted to
H. Wayne Huizenga School of Business and Entrepreneurship
Nova Southeastern University

in partial fulfillment of the requirements
for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

2009

A Dissertation
Entitled

CUSTOMER SATISFACTION, LOYALTY, AND REPURCHASE:
META-ANALYTICAL REVIEW, AND THEORETICAL AND
EMPIRICAL EVIDENCE OF LOYALTY AND
REPURCHASE DIFFERENCES

By

Tamilla Curtis

We hereby certify that this Dissertation submitted by Tamilla Curtis conforms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved as the fulfillment of the Dissertation requirements for the Degree of Doctor of Business Administration.

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Nova Southeastern University
2009

CERTIFICATION STATEMENT

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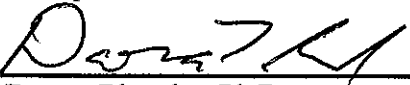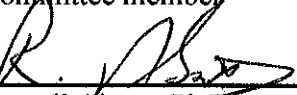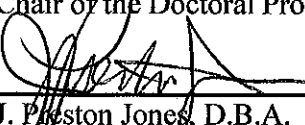
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ABSTRACT

CUSTOMER SATISFACTION, LOYALTY, AND REPURCHASE:
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Despite the large volume of research in the area of loyalty-repurchase-satisfaction, the findings on the relationship between these variables are conflicting. It seems that links between loyalty, repurchase, and satisfaction are not fully understood yet.

The study provided the theoretical background on loyalty, repurchase, satisfaction, and their interrelationships. The Theory of Planned Behavior and the Expectation Confirmation Theory were discussed. The loyalty-repurchase differentiation with five contributing factors was addressed. From the literature review nine hypotheses were proposed.

The study was conducted in three phases. The purpose of the first phase was to statistically identify the magnitude and the direction of relationships: loyalty-satisfaction, repurchase-satisfaction, and loyalty-repurchase by providing a quantitative review. A Hunter and Schmidt (1990) meta-analysis technique was employed. The results demonstrated that those three constructs have positive, strong relationships. However, the relationships were moderated by a number of factors, including the geographic region of the collected sample, the category (products versus service), and the business setting (B2B versus B2C).

The purpose of the second phase was to statistically identify relationships between the research constructs, such as loyalty dimensions (commitment, trust, involvement, and word of mouth), repurchase/repurchase intent, and satisfaction, by conducting a field study with customers of apparel products. A structural equation modeling technique was employed to test the proposed hypotheses. Eight hypotheses were supported. The results indicated that although positive relationships between the research constructs exist, not all relationships are significantly strong.

The purpose of the third phase was to compare the meta-analysis results, obtained from the large number of independent empirical studies, with the field study results, obtained from surveying consumers of apparel products. The overall findings of this research indicated that while meta-analysis and the field study results agree on positive relationships between the research constructs, the differences lay within the strength of the investigated relationships. The possible explanation was provided based on the theoretical foundation from the literature review.

The study contributes to the growing knowledge of the relationships between loyalty, repurchase, and satisfaction by assessing the current state of the empirical research on those three variables. This research addresses the existing gap in the literature, and attempts to resolve the existing mixed views on the studied concepts. The mixed results of meta-analysis and the field study in terms of the strength of the investigated relationships indicate the need to expand this area of research further.

ACKNOWLEDGEMENTS

"It is good to have an end to journey toward;
but it is the journey that matters, in the end"
(Le Guin, n.d.)

This dissertation would not happen without the guidance and support of a number of people. First, I would like to thank my dissertation committee for their assistance and constant encouragement throughout the dissertation process. A special "Thank You" to my dissertation committee chair, Dr. Paul Dion at Susquehanna University, for his quick response to my endless inquiries, and his valuable advice on structural equation modeling. To Dr. Dawna Rhoades at Embry-Riddle Aeronautical University, for her willingness and availability to see me at anytime, and her guidance on meta-analysis. To Dr. Russell Abratt at Nova Southeastern University, for his overall expert guidance. Your assistance was valuable and greatly appreciated.

I would like to thank my family, my husband Dominic and daughter Masha, for their constant support and understanding for why I need to spend countless hours working on this dissertation, and not participating in family fun activities. To my parents, Dr. and Mrs. Amirkhanov, for their encouragement to start this journey, and their cheer and support throughout this process.

I would like to acknowledge the administration of Embry-Riddle Aeronautical University, my director Len Brazis, faculty members and students participating in this research.

Finally, I would like to thank the doctoral office staff of H. Wayne Huizenga School of Business and Entrepreneurship for their guidance, and prompt assistance thorough the dissertation process.

This journey was not easy, but it was interesting and rewarding in the end. There are few moments in one's life where they take the time to honestly feel pride for their own accomplishments. Though I remain humble, I am very proud of myself, and all of those who have supported me along the way.

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CHAPTER I

INTRODUCTION

Background of the Problem

The increase in customer satisfaction, the repurchase rates, and the formation of loyalty are believed positively influence the performance of firms and lead to a competitive advantage (E.W. Anderson & Sullivan, 1993; Balabanis, Reynolds, & Simintiras, 2006; Divett, Crittenden, & Henderson, 2003; Dixon, Bridson, Evans, & Morrison, 2005; Lam, Shankar, Erramilli, & Murthy, 2004; B. Mittal & Lassar, 1998; Shih & Fang, 2005; Yi & La, 2004). Satisfaction, repurchase and loyalty concepts are considered to be among the most researched variables in marketing literature (Fullerton, 2005; Heitmann, Lehmann, & Herrmann, 2007; Lam et al., 2004; B. Mittal & Lassar, 1998; Rauyruen & Miller, 2007). A number of research findings on relationships between loyalty, repurchase, and satisfaction exist, however those findings vary in terms of the strength of relationship (S. O. Olsen, 2007; Seiders, Voss, Grewal, & Godfrey, 2005).

Loyalty is a multidimensional construct, which is identified and viewed differently by researchers. While some researchers recognize loyalty strictly in behavioral terms (E. W. Anderson, 1998; Auh & Johnson, 2005; Cyr, Hassanein, Head, & Ivanov, 2007; Dixon et al., 2005; Mellens, Dekimpe, & Steenkamp, 1996; R. I. Oliver, 1999; R. I. Oliver, 1996; S. O. Olsen, 2002; Reichheld, Markey, & Hopton, 2000), other

researchers stated that the concept of loyalty is more complicated, and has additional attitudinal elements (Balabanis et al., 2006; Bendall-Lyon & Powers, 2003; J. Bloemer, Ruyter, & Wetzels, 1999; J. M. M. Bloemer & Kasper, 1995; Butcher et al., 2001; Carpenter & Fairhurst, 2005; Dick & Basu, 1994; Divett et al., 2003; Harris & Goode, 2004; C. Homburg & Gierin, 2001; Jacoby, 1975; Jacoby & Kyner, 1973; Julander et al., 2003; Pedersen & Nysveen, 2001; Rowley & Dawes, 2000; Sivadas & Baker-Prewitt, 2000; Taylor & Hunter, 2002; Wanke & Fiese, 2004; Yang & Peterson, 2004).The relationship between loyalty and repurchase is not straight forward. High repurchase rates do not necessarily indicate loyalty while low repurchase rates do not always indicate disloyalty (Dick & Basu, 1994; Rowley & Dawes, 2000).

Although a number of researchers reported that satisfaction often leads to loyalty (Cronin, Bradyb, & Hulta, 2000; Dixon et al., 2005; C. Fornell, 1992; Genzi & Pelloni, 2004; Hallowell, 1996; Heitmann et al., 2007; B. Mittal & Lassar, 1998; V. Mittal & Kamakura, 2001; S. O. Olsen, 2007; Szymanski & Henard, 2001; Zeithaml, Berry, & Parasuraman, 1996), other researchers reported that satisfaction has low correlation with loyalty or repurchase (R. I. Oliver, 1999; S. O. Olsen, 2007; Rowley & Dawes, 2000; Seiders et al., 2005; Suh & Yi, 2006). The loyalty-satisfaction link is not well defined (Oliver, 1999). Olsen (2007) indicated that the relationship between satisfaction and loyalty varies between industries, and the strength of relationship can be affected by many factors including commitment, trust, or the level of consumer involvement.

Findings on the repurchase/repurchase intent and satisfaction relationship have also reported mixed results. While many researchers view satisfaction as an indicator of repurchase (E.W. Anderson & Sullivan, 1993; Durvasula, Lysonski, Mehta, & Tang,

2004; Fullerton, 2005; M. A. Jones, Mothersbaugh, & Beatty, 2003; LaBarbera &

Mazursky, 1983; S. O. Olsen, Wilcox, & Olsson, 2005; Rauyruen & Miller, 2007;

Swanson & Davis, 2003; Tsai, Huang, Jaw, & Chen, 2006; Turel & Serenko, 2004),

others demonstrated either a weak link between these two constructs, or no link at all

(Hellier, Geursen, Carr, & Rickard, 2003; Hicks, Page, Behe, Dennis, & Fernandez,

2005; Kumar, 2002; V. Mittal & Kamakura, 2001; Szymanski & Henard, 2001).

Problem Statement

A quantitative review of loyalty-repurchase-satisfaction provides a cumulative

representation of the relations of these concepts together with their strength and direction.

Hunter and Schmidt (1990) stated, "Scientists have known for centuries that a single

study will not resolve a major issue. Indeed, a small sample study will not even resolve a

minor issue. Thus, the foundation of science is the cumulation of knowledge from the

results of many studies" (p.13). By conducting a quantitative review through applying a

meta-analysis technique, this research synthesized previously reported statistical findings

on loyalty, satisfaction, and repurchase. The results of this study helped to determine the

strength, magnitude, and direction of hypothesized loyalty-repurchase-satisfaction

relationships.

In addition, the study investigated relationships between loyalty dimensions

(commitment, trust, involvement, and word of mouth), repurchase/repurchase intent, and

satisfaction. Factor analyses and Structural Equation Modeling (SEM) techniques were

employed to analyze the response of 499 consumers of apparel products in order to

statistically seek answers to the following research questions:

1. Which loyalty dimensions have strong positive relationships with repurchase or repurchase intent?

2. How does consumer satisfaction relate to loyalty dimensions?

3. How does consumer satisfaction relate to repurchase or repurchase intent?

The results obtained from the field study of surveying consumers of apparel products were compared with the results obtained through the meta-analysis for the further investigation of the research constructs and their relationships.

Justification of the Problem

The study contributes to the growing knowledge of the relationships between loyalty, repurchase, and satisfaction by assessing the current state of the empirical research on those three variables using a meta-analysis technique. This research addresses the existing gap in the literature, and attempts to resolve the existing mixed views on the studied concepts. A field study for consumers of apparel products examined relationships between loyalty, repurchase, and satisfaction for a better understanding of the studied variables and its interrelations.

This research is considered of importance to academicians as well as practitioners. First, while many studies independently examined different combinations of relationships between loyalty, repurchase, and satisfaction, this research attempted to synthesis the previously reported findings. The meta-analytical technique identified the true relationship and the direction between studied variables. Meta-analysis is a powerful research method, which is capable of improving the precision of results found in independent studies (Ankem, 2005). Saxton (2006) stated that the primary goal for

researchers is to explain the phenomena and its meaning in terms of expanding disciplinary knowledge and improving practice. The nature of meta-analysis techniques is a knowledge synthesis. "The meta-analytic process of cleaning up and making sense of research literatures not only reveals the cumulative knowledge that is there, but also provides clearer directions about what the remaining research needs are" (Hunter and Schmidt, 1990, p.38).

The meta-analysis conducted on loyalty, repurchase, and satisfaction relationships, contributes to the overall discussion of the place of Marketing as a discipline. Hunt (2002), in his book *Foundations of Marketing Theory: Toward a General Theory of Marketing*, discussed the controversy over the question, is Marketing considered to be a science? In Hunt (2002), Buzzell's perspective of a science is identified as "a classified and systematized body of knowledge; organized around one or more central theories and a number of general principles; usually expressed in quantitative terms; knowledge which permits the prediction and, under some circumstances, the control of future events" (p.19).

Meta-analysis represents key findings on loyalty, repurchase, and satisfaction relationships by using a quantitative technique, which is very different from the conventional qualitative review process. Meta-analysis produces the summarized effect estimates with more statistical power than individual studies by estimating the size of the effect in each study and by pooling those estimates across studies (Lipsey & Wilson, 2001). Meta-analysis allows for discovering more meaningful effects and relationships between variables than the single study approaches.

Second, the study integrated into the proposed framework (loyalty-repurchase, satisfaction-loyalty, and satisfaction-repurchase) the loyalty dimensions in order to investigate relationships between studied variables for consumers of apparel products. The study provided empirical evidence of differences between loyalty and repurchase, which is supported by the theoretical evidence from the review of academic literature.

This research is useful for practitioners when presenting managers with insights of complicated relationships between three very important concepts in marketing such as loyalty, repurchase, and satisfaction. In addition, this study provides a better understanding of differences between two interchangeably used concepts: loyalty and repurchase. The understanding of differences between these two constructs will help managers to implement strategies including short and long term objectives, in order to achieve corporate goals.

Purpose of the Study

The purpose of this quantitative research is to synthesize statistical results on loyalty, repurchase, and satisfaction relationships by using a meta-analytical technique. In addition, the study investigates the Theory of Planned Behavior (I. Ajzen, 1985; I. Ajzen, 1991), the Expectation Confirmation Theory (R. L. Oliver, 1980), and the Dick and Basu (1995) conceptual framework on the nature of relative attitudes as an indicator of repeat patronage for consumers of apparel products.

The study was conducted in three phases. The purpose of the first phase was to statistically identify the magnitude and the direction of relationships: loyalty-satisfaction,

repurchase-satisfaction, and loyalty-repurchase. A meta-analysis technique (Hunter & Schmidt, 1990) was employed in this phase.

The purpose of the second phase was to statistically identify relationships between the research constructs, such as loyalty, repurchase, and satisfaction, by conducting a field study with customers of apparel products. Loyalty dimension variables were tested with repurchase/repurchase intent and satisfaction variables. A factor analysis and structural equation modeling, to test the significance of the hypothesized correlations, were employed. The SPSS with AMOS software package was utilized.

The purpose of the third phase was to statistically compare the meta-analysis results, obtained from the large number of independent empirical studies, with the field study results, obtained from surveying consumers of apparel products. On a basis of the findings, the study provided conclusions with a discussion of managerial implications and areas for future research.

<u>Definition of Terms</u>

Loyalty: Consists of behavioral, attitudinal, and combined loyalty (Dimitriades, 2006; Kim et al., 2004; Rauyruen & Miller, 2007; Zins, 2001).

Behavioral loyalty: The willingness of consumers to repurchase the product, or the services and to maintain a relationship with the service provider or supplier (Rauyruen & Miller, 2007).

Attitudinal loyalty: The level of customer's psychological attachments and attitudinal advocacy towards the service provider or supplier (Rauyruen & Miller, 2007).

Repurchase: The consumer's behavior expressed as the purchase of a product, or service on more than one occasion.

Repurchase Intent: The consumer's decision to engage in future activity such as repurchase of a product or service (Hume, 2007).

Satisfaction: The overall satisfaction or cumulative satisfaction is a match between the consumer's expectation of the product or service and the actual product or service performance. The degree of overall pleasure or contentment felt by the customer, resulting from the ability to fulfill the customer's desires, expectations and needs (Hellier et al., 2003).

Commitment: The degree to which a consumer is willing to make sacrifices to maintain the relationship with the particular brand, product or the service provider. An ongoing relationship between partners is so important as to warrant maximum efforts at maintaining it (Morgan & Hunt, 1994).

Trust: Mutual confidence, which include reliability and integrity, and a willingness to rely on exchange between two parties (Morgan & Hunt, 1994).

Involvement: A degree of personal relevance or importance; or how a consumer perceives a brand, product or service. "An unobservable state of motivation, arousal, or interest towards consumption (activity) of a product category (object) (Olsen, 2007, p. 319-320).

Word of Mouth: A distribution of information usually in a person-to-person method. Positive word of mouth is identified as a recommendation of a product or service.

Meta-Analysis: A technique of summarizing and testing the statistical results obtained across other independent researcher's findings related to the same topic.

Effect Size: Index representing individual study results. "A statistic that encodes the critical quantitative information from each relevant study findings" (Lipsey and Wilson, 2001, p.3).

Limitations

This research presents five limitations.

1. The meta-analysis phase synthesized studies identified from peer reviewed publications, by using internet search engines, manual searches, and other references. These findings on the studied variables were reported either as correlation coefficients or in statistics, which could be converted to the correlation coefficient. This research did not include studies that reported their findings in other statistical forms, such as those obtained from conducting discriminate analysis, factor analysis, or regression analysis.

2. The collected studies should report all needed statistics including the effect size. Therefore, this research did not include studies partially reported statistics needed for conducting meta-analysis.

3. The meta-analysis database consisted of published studies collected from the search of refereed journals, and did not include any unpublished studies or conceptual papers.

4. For the purpose of the field study, only four dimensions of loyalty (commitment, trust, involvement, and word of mouth) were tested on their relationships with repurchase and satisfaction variables. Loyalty construct consists of many other dimensions, which were not investigated in this study.

5. The field study used a combination of several seven-point format marketing scales, where the interpretation of scale items such as "strongly agree", "agree", or other items may differ from one participant to another.

Assumptions

This research has three assumptions. First, the field study assumed that a sample of consumers of apparel products is a true random sample of a group of consumers.

Second, word of mouth was viewed as a positive or as a recommendation. The goal of this research is to investigate relationships between loyalty dimensions, repurchase, and satisfaction. Anderson (1998) suggested that willingness to recommend measures are widely used in practice to assess the impact of customers' overall levels of satisfaction. Satisfied customers engage more in word of mouth than dissatisfied customers (E. W. Anderson, 1998). Therefore, a negative word of mouth was not addressed in this study.

Third, satisfaction was viewed as the overall satisfaction or cumulative satisfaction, which includes satisfaction with brand, product, or service. Other types of satisfaction include satisfaction during different purchasing stages such as consumption or post-purchase.

Summary and Organization of the Study

The study is organized into five chapters. Chapter I, explains the studied constructs, addresses the problem statement with its background and justification, the purpose of the study, and the importance of the research in the areas of loyalty,

repurchase, and satisfaction. This chapter provides definitions of terms, limitations, and assumptions.

Chapter II presents a review of the literature applicable to the proposed problems with the development of research questions and proposed hypotheses.

Chapter III discusses the research methodology for two phases of the study. The first phase (meta-analysis) provides an overview of a meta-analytical technique, addresses three steps for conducting meta-analysis (the database development, the conversion process, and the method of analysis), and discusses common concerns. The second phase (the field study) addresses loyalty, repurchase, and satisfaction relationships with the data collection procedures, provides an overview of the research methodology with validity and reliability issues, and methods of analysis. Furthermore, it discusses the scale development by employing the results of two conducted test studies.

Chapter IV reports the results of the conducted data analysis. First, the meta-analysis results are discussed for the loyalty-repurchase-satisfaction research constructs with the presentation of moderator analysis results. Second, the field study results are presented and discussed including the description of obtained responses, the structural equation modeling technique, a test of the overall SEM, and hypotheses tests. Third, the meta-analysis and the field study results are compared and analyzed.

Finally, Chapter V, discusses the theoretical and practical implications, study limitations, study contributions, conclusions, and provides recommendations for future research.

CHPATER II

REVIEW OF LITERATURE

Introduction

The purpose of the literature review is to present background knowledge and critical information pertaining to the research constructs: repurchase or repurchase intent as dependent variable, and loyalty dimensions and satisfaction as independent variables. In addition, the literature review provides an overview of reported relationships between those constructs. The development of the research questions with the theoretical model and hypotheses are presented at the end of the literature review.

Repurchase and Repurchase Intent

Theoretical Background of Repurchase/Repurchase Intent

The concept of repurchase and factors influencing it has been investigated by many researchers (Dick & Basu, 1994; Ehrenberg & Goodhardt, 1968; Evans & Gentry, 2003; Jacoby & Kyner, 1973; Law, Hui, & Zhao, 2004; V. Mittal & Kamakura, 2001; Quick & Burton, 2000; Seiders et al., 2005; Wanke & Fiese, 2004). Repurchase is defined as consumer's actual behavior resulting in purchasing the same product or service on more than one occasion. The majority of customer's purchases are potential repeat purchases (Peyrot & Van Doren, 1994). Customers buy similar products repeatedly from

similar sellers, and most purchases represent a series of events rather than a single isolated event. Retention is another common term for repurchase (Hennig-Thurau, 2004; Narayandas, 1998; Zineldin, 2006), which consider to be one of the most important variables in relationship marketing (Fullerton, 2005; Morgan & Hunt, 1994).

While repurchase is the actual action, repurchase intent is defined as the customer's decision to engage in future activities with the retailer or supplier (Hume, Mort, & Winzar, 2007). Repurchase intent is also a frequent research topic (Davidow, 2003; Dixon et al., 2005; Hellier et al., 2003; M. A. Jones, Mothersbaugh, & Beatty, 2000; M. A. Jones et al., 2003; Julander, Soderlund, & Soderberg, 2003; V. Mittal, Ross, & Baldasare, 1998; Peyrot & Van Doren, 1994). Hellier et al. (2003) defined repurchase intention as "the individual's judgment about buying again a designated service from the same company, taking into account his or her current situation and likely circumstances" (p. 1764). Two forms of repurchase intent are identified: the intention to re-buy, and the intention to engage in positive word of mouth and in recommendation (Zeithaml et al., 1996). There have been discussions in marketing research literature whether purchase intentions and past purchasing behavior are correlated with actual consumer behavior in the future (Dixon et al., 2005).

To retain customers is becoming an increasingly important task for organizations in order to obtain a sustainable competitive advantage (Dixon et al., 2005). The increase in consumer's repurchase rate leads to the company's profit, growth, the reduction in marketing costs, and the consumer's willingness to pay higher premiums (Dixon et al., 2005; M. Soderlund & Vilgon, 1999). The cost of retaining a customer is lower than that of obtaining a new one (Shih & Fang, 2005). However, the repurchase rate could be

difficult to predict due to the influence of different internal and external factors (Dixon et al., 2005). Competition plays a large part, and customers often switch to retailers who offer the best deal. One of the major questions for managers is to understand under what circumstances consumer will repurchase a product that they have bought before, or repurchase from the same seller again (Peyrot & Van Doren, 1994). The importance of understanding why consumers are purchasing products or services, and more important repurchasing, is fundamental for organizational success and consumer retention programs. Without the ability to predict consumer's purchase behavior, marketing programs might target all customers, reducing organizational effectiveness and efficiency.

The early research on purchase and repurchase was largely concentrated on low involvement products with low prices and high purchase rate. Loyal consumers were identified as those who repurchase a brand (Newman & Werbel, 1973). Only the brand was considered while brand-related information seeking and environment were not taken into consideration. Later in the research, it was suggested that consumers make purchasing decision after considering both internal factors, such as personal experience, and external factors such as environment. Consumers consider internal factors prior to external information search. Recent research suggested that consumers are starting to rely more on internal factors, such as experience and past satisfaction, in their purchasing decision (Quick & Burton, 2000).

A number of researchers examined determinants of repurchase behavior including brand loyalty, word of mouth communication, complaining behaviors, and satisfaction or dissatisfaction (Davidow, 2003; Dick & Basu, 1994; Hellier et al., 2003; Hicks et al.,

2005; Law et al., 2004; V. Mittal & Kamakura, 2001; Narayandas, 1998; S. O. Olsen, 2002, 2007; M. Soderlund, 2002). Quick and Burton (2000), stated that many researchers examined the relationships between information search, and the level of involvement during the search process and purchase rather than repurchase itself. Several drivers affecting repurchase intentions were identified. They include past experiences, mood, affect, value, conveniences, service quality, customer familiarity, service failure, and recovery (Hume et al., 2007). Zeithaml and Berry (1996) developed a model describing the behavioral consequences of service quality and the effect on repurchase. According to the model, if consumers assessed the service quality as high, they formed a strong relationship with the service provider, and their behavioral intentions were favorable. Behavioral intention is used as an indicator of whether the customer will remain loyal or defect. Unfavorable behavioral intentions could result in consumers' complaining, decreasing the use of the provider's services, and switching (Zeithaml et al., 1996). The research on the role of price perceptions in purchase decision and their effect on consumer retention indicated that negative price perceptions have a direct negative effect on behavioral intentions (Varki & Colgate, 2001).

The relationship between switching barriers and their relationship to customer's intention to repurchase was examined by a number of researchers (M. A. Jones et al., 2000; M. A. Jones et al., 2003; Julander et al., 2003; Tsai et al., 2006; Turel & Serenko, 2004). Eight factors consider to influence switching behavior: inconvenience, price, core service failure, service encounter failure, service recovery, competitive attractions and ethical problems (Keaveney, 1995). Keaveney (1995) researched that 45% of survey

respondents indicated that they switched the provider because of a single factor, and 55%

indicated two or more factors.

Theory of Planned Behavior

The two most widely used theories explaining consumer actions are the Theory of

Planned Behavior (I. Ajzen, 1985; I. Ajzen, 1991) and the Theory of Reasoned Action

(Fishbein & Ajzen, 1975). These theories are used by marketers to influence consumer

behavior (Bansal & Taylor, 2002). The Theory of Planned Behavior (TPB) was proposed

by Ajzen (1985) as the extension of the Theory of Reasoned Action (TRA), and has been

applied to studies of the relations among behavioral intentions, attitudes, and beliefs (see

Figure 1). The TPB enhanced the TRA by incorporating the additional variable of

perceived behavioral control in the prediction of intentions and behaviors. The main

effect, suggested by the TPB, is to be able to predict behavior from intention (I. Ajzen,

1991; Armitage & Conner, 2001; Bansal & Taylor, 2002; Chatzisarantis, Hagger, &

Brickell, 2008; Froehle & Roth, 2004; Hrubes, Ajzen, & Daigle, 2001; Liao, Chen, &

Yen, 2007; Madden, Ellen, & Ajzen, 1992; Shih & Fang, 2005).
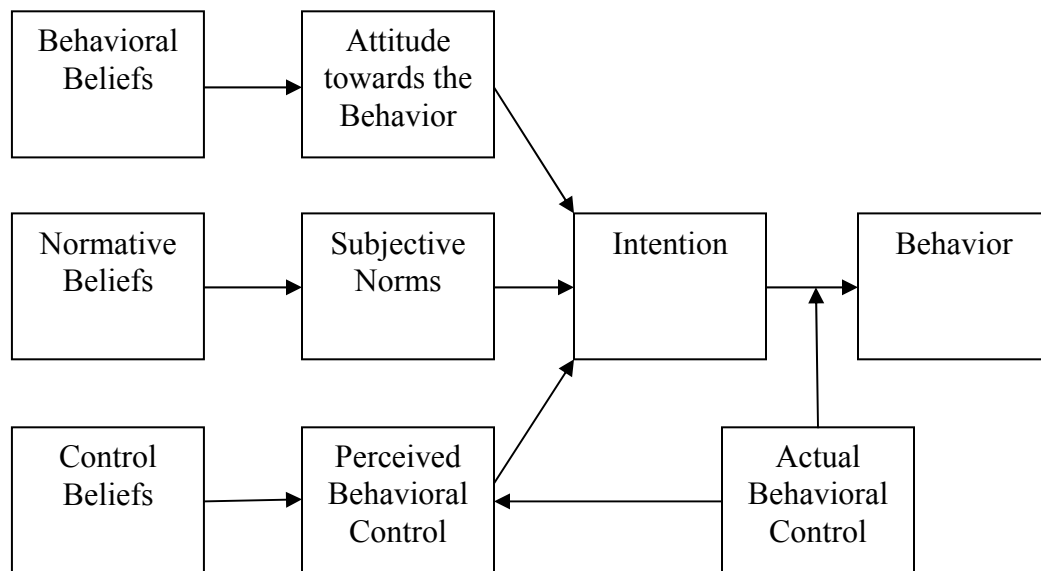
Figure 1. The Theory of Planned Behavior model (adapted from Ajzen, 1991).

Consumer behavior is the observable response in a given situation with respect to a given target (I. Ajzen, 1991). According to the TPB model, consumer behavior is a function of consumer's intentions and behavioral control, which could be divided into actual and perceived. Actual behavioral control refers to the extent to which a person has resources or skills needed to perform a given behavior. Perceived control serves as a proxy of actual control and refers to people's perceptions of their ability to perform a given behavior. Together with intentions, perceived behavioral control can be used to predict consumers' behavior. Perceived behavioral control is determined by the set of control beliefs. Ajzen (1991) stated that the strength of each control belief is weighted by the perceived power of the control factor. Other variables influencing consumer intentions include subjective norms and attitude towards the behavior. Subjective norms are defined as the perceived social pressure to engage or not to engage in a behavior, and

determined by the set of normative beliefs concerning the expectations of important referents. Attitude towards the behavior is the degree to which performance of the behavior is positively or negatively valued. Attitude is determined by the set of accessible behavioral beliefs linking the behavior to various outcomes and other attributes. Conceptually attitude is similar to the concept of satisfaction and drives customer intentions for future behavior including a loyalty formation (Froehle & Roth, 2004).

Positive relationships between intention and its three antecedents (perceived behavioral control, subjective norms, and attitude towards the behavior) have been established by the TPB model. Generally, the more favorable attitude and subjective norms with respect to the behavior, the stronger should be an individual's intention to perform (Bansal & Taylor, 2002). The TPB helps to explain customer switching behavior (Bansal & Taylor, 2002). If both intentions to switch and perceived control over switching were high, switching behavior was more likely to result (Bansal & Taylor, 2002). However, if there was low perceived control over switching, such as high switching costs, then customers were less likely to switch. Bansal and Taylor (2002) stated that the interaction between perceived behavioral control and attitude indicate that a favorable attitude toward switching was more likely to result in a stronger intention to switch if the customer perceived a high degree of control over switching.

Ajzen (1991) points out that some empirical studies have found a limited effect of subjective norms on intentions. However, the researcher stated that the majority of results from the TPB model found that subjective norms together with attitude do play a role in influencing behavior. A customer with a favorable attitude toward switching might not switch if significant others do not want him or her to switch (I. Ajzen, 1991).

A quantitative review of 185 independent studies reported that the TPB accounts for 27% of the variance in behavior and 39% of the variance in intention (Armitage & Conner, 2001). Armitage and Conner (2001) stated that perceived behavioral control accounted for significant amounts of variance in intention and behavior, while the subjective norms construct was found to be a weak predictor of intentions. However, Armitage and Conner (2001) indicated that this could be partly attributed to a combination of poor measurement, and the need for further expansion of the normative component. From a practitioner's point of view, managers using the TPB in order to influence consumer behavior should take into account interactions between all constructs (Bansal & Taylor, 2002).

Loyalty

Loyalty has received considerable attention in marketing literature for over 80 years beginning with the early work of Copeland (1923) (Mellens et al., 1996). Early research was conducted on consumer loyalty towards household goods (Jacoby & Kyner, 1973; Newman & Werbel, 1973). Later, loyalty was been defined and measured in relation to several marketing aspects such as brand loyalty, product loyalty, service loyalty, and chain or store loyalty (S. O. Olsen, 2007). Loyalty has been studied in different context: the consumer context and service market (Rauyruen & Miller, 2007). The historical research on loyalty started viewing loyalty as a repeat purchase behavior, and was further developed by including loyalty antecedents, consequences, and factors.

Loyalty has a powerful impact on firm performance (Edvardsson, Johnson, Gustafsson, & Strandvik, 2000; Lam et al., 2004; Reichheld et al., 2000; Zineldin, 2006).

Firms gain a competitive advantage by having a high rate of loyal consumers (Mellens et al., 1996; Zineldin, 2006), who are willing to pay higher prices and are less price sensitive (Mellens et al., 1996). Brand loyalty provides the firm with trade leverage and valuable time to respond to competitive moves. Understanding the concept of loyalty helps companies better manage customer relationship management in order to create long-term investment and profitability (Zineldin, 2006). Loyal consumers offer a steady stream of revenue for a company by remaining with the brand or supplier and rejecting competitor offerings (Rauyruen & Miller, 2007). The success of a firm depends on its capability to attract consumers towards its brands (Mellens et al., 1996). To retain the organization's current customers and to make them loyal is a critical component for a company to be successful.

Loyalty provides many advantages not only for organizations but for consumers as well. Brand loyalty is the result of the mental processing of the brand's features by the consumer, and is influenced by a number of factors (Mellens et al., 1996). Generally, loyalty is formed after the consumer had a positive experience. Brand loyalty implies that consumers have a good attitude towards a particular brand over other competing brands. For a consumer to become and remain loyal, he or she must believe that company's offerings are the best choice (R. I. Oliver, 1999). Loyalty leads to a sense of security and predictability for consumers (Rowley & Dawes, 2000), and makes the shopping experience easier by saving time on a product information search. Consumers form different relations with products or services. Therefore, they display different types of loyalty and demonstrate different patterns of repurchase behaviors (Wanke & Fiese, 2004). Wanke and Fiese (2004) stated that the brand preferences are more stable in older

consumers because they have established their preferences and are less influenced by peers. "They have had a life to find out what they like" (Wanke & Fiese, 2004, p. 304). The main task for marketing managers is to be able to recognize and distinguish between different types of consumers in order to adapt strategy best suited for each type.

Theoretical Background of Loyalty

While the early research on loyalty was focused on examining brand loyalty identified with repeat purchase, Jacoby and Chestnut (1978) investigated the psychological meaning of loyalty. They reported that repeat consumers are not necessarily loyal and could be influenced by many factors. On the other hand, loyal consumers, especially in the case of multi-brand loyalty, can demonstrate a low repurchase rate.

Loyalty is a multidimensional construct, which is defined and viewed differently by researchers. According to Jacoby and Chestnut (1978) 53 definitions of brand loyalty were identified, which were predominantly operational. Literature review provides two main types of definitions of loyalty: a conceptual definition (abstract descriptions of the phenomenon being studied) and an operational definition (the measurement method) (Mellens et al., 1996). The term "loyal" can be interpreted in different ways, ranging from affective loyalty ("what I feel") to behavioral loyalty ("what I do") (Morgan & Hunt, 1994). Dick and Basu (1994) indicated that the brand loyalty literature contains many measures proven operationally but without any theoretical meaning.

One of the most comprehensive conceptual definitions of brand loyalty was presented by Jacoby and Chestnut (1978), who proposed six loyalty conditions, which are

currently used by many researchers (J. M. M. Bloemer & Kasper, 1995; Mellens et al., 1996). Loyalty conditions (Jacoby & Chestnut, 1978):

1. The biased response - non random.

2. The behavioral response - a systematic process to buy certain products or brands.

3. Expressed over time - purchases should be conducted during a certain period and display a pattern. Incidental purchases towards a brand or a product do not indicate loyalty.

4. Decision-making unit - an individual or an entity, which is involved in the purchasing decision but not necessarily in the purchasing process.

5. Selection of brands - different alternatives should be available. However, the consumer can be loyal to more than one brand (multi-branding) especially for low involvement products.

6. The psychological process - the decision-making and evaluation based on consumer's prior beliefs and experiences.

The operational definitions of loyalty come from the conceptual definitions by using a specific operational measures (Mellens et al., 1996). The operational definitions can be grouped into four areas based on the two dimensions: attitudinal versus behavioral measures, and brand-oriented versus individual-oriented measures (see Table 1).

Table 1

Four Areas of Loyalty Measures (adapted from Mellens, Dekimpe and Steenkamp, 1996)

	Attitudinal measures	Behavioral measures
Brand-oriented	Stated purchase intentions, Commitment	Aggregated data, Aggregated switching matrices, Market share, Individual level data
Individual-oriented	Product category level, General measures	Proportion-of-purchase, Sequence-of-purchase

Three main streams of research on loyalty emerged from the literature review and shown in Figure 2:

1. Behavioral loyalty (Auh & Johnson, 2005; Dixon et al., 2005; Edvardsson et al., 2000; Iwasaki & Havitz, 2004; Jacoby & Chestnut, 1978; Jacoby, Chestnut, & Fisher, 1978; Kenhove, De Wulf, & Steenhaut, 2003; Law et al., 2004; Newman & Werbel, 1973; S. O. Olsen, 2002, 2007; Tseng, 2005; Wang, Liang, & Wu, 2006; Zeithaml et al., 1996).

2. Attitudinal loyalty (C. Fornell, 1992; Julander et al., 2003; Zeithaml et al., 1996).

3. Composite or integrated loyalty (Dimitriades, 2006; Kim, Park, & Jeong, 2004; Rauyruen & Miller, 2007; Zins, 2001).

A number of researchers (Andreassen & Lindestad, 1998; Dick & Basu, 1994; R. I. Oliver, 1999; S. O. Olsen et al., 2005; Rowley & Dawes, 2000) examined customer loyalty as an interaction of attitude and behavior.

Figure 2. Three streams of loyalty.

Behavioral Loyalty

      Rauyruen and Miller (2007) identified behavioral loyalty as the willingness of

average customers to repurchase the service or the product, and to maintain a relationship

with the service provider or supplier. Rauyruen and Miller (2007) stated "In an early

school of thought, Tucker (1964) argues that behavior (past purchases of the

brand/product) completely accounts for loyalty" (p.22). Behavioral loyalty studies have

focused on interpreting patterns of repeat purchasing as a manifestation of loyalty

(Jacoby & Chestnut, 1978). Three main classes of behavioral measures include

proportion, sequence, and probability of purchase (Jacoby & Chestnut, 1978; Zins, 2001).

The behavioral perspective or the purchase loyalty looks at repeat purchase behavior and

is based on the customer's purchase history. The emphasis is on past rather than on future

actions (Dimitriades, 2006). Mellens, Dekimpe, and Steenkamp (1996) reported that

behavioral measures define brand loyalty in terms of the actual purchases over a specified

time frame and they are non-incidental. Those measures are easier to collect than

attitudinal data. However, concentrating solely on the behavioral aspect of loyalty would

overestimate the share of true loyalty because some customers are forced to repurchase

the same brand or use the same distribution channel (Zins, 2001). Behavioral loyalty could be influenced by many factors including the availability of the product.

The relationship between behavioral loyalty and market performance was investigated. "While empirical evidence on this relationship is still scarce, the relationship between behavioral loyalty and bottom-line profits is considered to be much more direct than the relationship between, for example, satisfaction and bottom-line profits" (Kenhove et al., 2003, p.263). Generating profits is one of the most important objectives of a company, therefore, behavioral loyalty is considered to be an important outcome of the relationship between consumers and a firm (Kenhove et al., 2003). Indicators of behavioral loyalty include the frequency of visits to the retailer and the number of purchases per customer. To influence the behavior of consumers, a number of companies introduced loyalty programs. Participants in loyalty programs make a higher number of visits to the retailer than non-participants, and owners of loyalty cards purchase on average more than people without them (Gomez, Arranz, & Cillan, 2006).

Attitudinal Loyalty

Attitudinal loyalty, in contrast to behavioral loyalty, is distinguished from repeat buying (Mellens et al., 1996). Zins (2001) stated that customer's mental, emotional, and knowledge structures act as mediators between stimuli and responses. Reuyruen and Miller (2007) defined attitudinal loyalty as the level of customer's psychological attachments and attitudinal advocacy towards the service provider or supplier. Attitude denotes the degree to which a consumer's disposition towards a service is favorable. Variables of attitudinal loyalty include recommendation the service to others, positive

word of mouth, and commitment to a preferred firm (Andreassen & Lindestad, 1998; Dimitriades, 2006; Rauyruen & Miller, 2007; Zeithaml et al., 1996).

Several researchers (Harris & Goode, 2004; R. I. Oliver, 1999; Pedersen & Nysveen, 2001; Yi & La, 2004) reported that in the attitudinal approach, loyalty has three phases: cognitive, affective and conative. Cognitive loyalty is considered to be the first phase in the loyalty formation process. Cognitive loyalty is based on belief and consists of prior knowledge or recent experience, including product or service features such as price. Cognitive loyalty is directed towards the brand and is characterized by the consumer's preference for perceived attributes. The second phase is affective loyalty. It characterized by emotional preferences for products and is represented by a liking or positive attitude towards the brand, which can emerge from satisfaction. "I buy it because I like it" (Oliver, 1999, p.36). The third phase is conative loyalty, which is considered to be a behavioral intention. It characterized by repeat purchase and brand-specific commitment. "I'm committed to buying it" (Oliver, 1999, p.36). In addition to the above three attitudinal loyalty phases, Oliver (1999) indicated the additional action loyalty phase. During action loyalty purchase intentions are converted into actions. Consumers have desire to overcome obstacles in order to repurchase the product or the service. Each phase of loyalty is characterized by the different pattern of repurchase behavior. Four phases of attitudinal loyalty are shown in Table 2.

Table 2

Four Phases of Attitudinal Loyalty (adapted from Dick and Basu, 1994)

Phase 1: Cognitive	Phase 2: Affective	Phase 3: Conative	Phase 4: Action
Accessibility, Confidence, Centrality, Clarity	Emotion, Feeling states/ mood, Primary affect, Satisfaction	Switching cost, Sunk cost, Expectation	Repurchase, Obstacle overcome

Composite Loyalty

The composite perspective combines attitudinal and behavioral measures of loyalty (Dimitriades, 2006; Kim et al., 2004; Rauyruen & Miller, 2007; Zins, 2001), and consider to have a better predictive power (Dimitriades, 2006). Dick and Basu (1994) suggested that loyalty status can be assessed in terms of the strength of the relationship between relative attitude and repeat patronage, which could be compared with competing offerings. Strong versus weak attitudes toward the object combined with high versus low repeat patronage is illustrated by Dick and Basu (1994) in the Attitude-Repurchase Relationship matrix (see Table 3).

Dick and Basu (1994) closely investigated the relationship between loyalty and the antecedents of attitude. Dick and Basu (1994) stated that the nature of relative attitude is likely to provide a stronger indicator of repeat behavior. However, the relationship between relative attitude and repeat patronage may be influenced by many factors including social norms (perceived behavioral norms or role requirements) and situational factors. Situational factors may impact loyalty including actual or perceived opportunity for engaging in attitude-consistent behavior such as stock outs of preferred brands,

incentives for brand switching through reduced prices, deals of competing brands, or effective marketing promotions (Dick & Basu, 1994). Consequences of consumer loyalty include motivational, perceptual, and behavioral consequences. Dick and Basu (1994) suggested that in order to manage loyalty the following areas should be taken into account: identification of relevant antecedents and consequences in a given market; determination of the relative impact of the contribution of antecedent factors, and the likelihood of different consequences; and the identification of causal variables.

The Attitude-Repurchase Relationship matrix identified four possible types of scenarios: loyalty (true), spurious, latent, and no loyalty (see Table 3).

Table 3

Attitude-Repurchase Relationship Matrix (adapted from Dick and Basu, 1994)

		Repeat Patronage	
		High	Low
Relative Attitude	Strong	Loyalty (True)	Latent Loyalty
	Weak	Spurious Loyalty	No Loyalty

Four scenarios:

1. Loyalty (true) is characterized by strong relative attitude and high repeat patronage. This is the most preferred scenario for managers.

2. Spurious loyalty is referred to as repeat purchase despite unfavorable attitude. This scenario can be based on routine behavior, and is not linked to a particular positive attitude. Spurious loyalty is identified similar to the notion of inertia. Consumers perceived little differentiation among brands and undertake repeat

purchase on the basis of situational cues including familiarity or deals. Customers

may abandon the brand easy once they are offered an alternative (Wanke & Fiese,

2004).

3. Latent loyalty is referred to a low brand patronage despite favorable attitude. This

    scenario could be due to external factors that keep consumers from buying the

    brand including distribution problems or high prices. If these external barriers are

    removed, purchase is likely. Latent loyalty represents a serious concern for

    marketers.

4. No loyalty.

Loyalty Dimensions

Academic literature identified a number of dimensions and determinants of

loyalty. Loyalty dimensions in the service literature include positive word-of-mouth, a

resistance to switch, identification with the service, and a preference for a particular

service provider (Butcher, Sparks, & O'Callaghan, 2001). Rauyruen and Miller (2007)

proposed four determinates of business to business loyalty: service quality, commitment,

trust, and satisfaction. Brand loyalty is defined as commitment to a certain brand which

emerges from positive attitudes (Assael, 1998). Morgan and Hunt (1994) stated that

commitment entails consumers to make an effort to maintain a relationship with a

provider. Berry (1993) concluded that "trust is the basis for loyalty" (p.1). Trust could be

identified with functional reliability, because it provides consumers with a sense of

security (Dixon et al., 2005). Trust between consumers and trading partners plays an

important part in building commitment (Garbarino & Johnson, 1999; Macintosh &

Lockshin, 1997). Suh and Yi (2006) stated that involvement has often been regarded as one of the important moderators that determine purchase decisions. Positive word of mouth is a common approach to loyalty conceptualization, where loyal customers become advocates for the service or product (Butcher et al., 2001).

This study investigates four loyalty dimensions: commitment, trust, involvement, and word of mouth.

Commitment

The construct of commitment was investigated by a number of researchers (Bansal & Taylor, 2002; Dimitriades, 2006; Fullerton, 2003, 2005; Garbarino & Johnson, 1999; Gupta & Kim, 2007; Hennig-Thurau, 2004; Iniesta & Sanchez, 2002; Iwasaki & Havitz, 2004; Jacoby, 1975; Morgan & Hunt, 1994; Rauyruen & Miller, 2007; Zins, 2001). Rauyruen and Miller (2007) indicated that the concept of commitment came from industrial and organizational psychology. Commitment to a relationship is considered to be a central construct in the development of relationship marketing (Bansal & Taylor, 2002; Garbarino & Johnson, 1999; Morgan & Hunt, 1994). Customer commitment to the supplier is a very important driver of customer loyalty in service industries (Fullerton, 2003). Commitment could be identified as a motivation to stay with a partner (Moorman, Zaltman, & Deshpande, 1992). Rauyruen and Miller (2007) identified commitment as a psychological sentiment of the mind through which an attitude, concerning with the relationship with a business partner, forms. Morgan and Hunt (1994) indicated that the committed party trusts that the relationship is worth working. Commitment is based on a belief that an exchange partner will maximum an effort to maintain the relation (Gupta &

Kim, 2007). Ultimately, commitment is the binding of an individual to his or her choice (Dixon et al., 2005). The buyer-seller relationship literature defines commitment as rational continuity between partners. The repeat buying of a brand is based on a maximum amount of commitment (Rauyruen & Miller, 2007).

Three components of commitment were identified: an input component (the action taken by one party that creates self-interest in the relationship); an attitudinal component (enduring intention of each party to develop and maintain a long-term relationship); and a temporal component (the long-term consistency of inputs and attitudes) (Gupta & Kim, 2007).

Previous research identified two forms of commitment: affective commitment and continuance commitment (Fullerton, 2005; Rauyruen & Miller, 2007). Affective commitment is formed from values, identification, and attachment (Bansal & Taylor, 2002; Fullerton, 2003, 2005). Fullerton (2005) stated that consumers trust and enjoy doing business with a partner when they are affectively committed to the partner. On the other hand, continuance commitment, according to Fullerton (2005), has its roots in scarcity of alternatives, side-bets, and switching costs. Consumers might stay with their partner because of difficulty to get out of the relationship, or because only few alternatives outside the existing relationship are available. Affective commitment, which includes feelings of attachment and identification, is very different from continuance commitment, which includes feelings of dependence and entrapment. However, the two forms are not necessarily mutually exclusive (Fullerton, 2003). Consumers could have feelings of positive affect and feelings of dependency at the same time.

Trust

Trust is considered to be one of the critical factors for a successful relationship between parties, and is viewed as one of the loyalty dimensions. The importance of trust in explaining the loyalty concept, future intentions, and satisfaction is supported by many researchers (Dixon et al., 2005; Floh & Treiblmaier, 2006; Garbarino & Johnson, 1999; Harris & Goode, 2004; Morgan & Hunt, 1994; Pedersen & Nysveen, 2001; Rauyruen & Miller, 2007; Taylor, Celuch, & Goodwin, 2004; Tsai et al., 2006; Yi & La, 2004). "In organizational behavior, the study of "norms of trust" is considered a characteristic distinguishing management theory from organizational economics (Barney 1990; Donaldson 1990a)" (Morgan and Hunt, 1994, p. 24). Relationship marketing is built on the foundation of trust (Berry, 1995).

Rauyreuen (2007) identified trust as the belief that a party's word or promise is reliable, and the party will fulfill his or her obligation in an exchange relationship. Trust is a feeling of security held by the consumer that the other party will meet his or her expectation (Dixon et al., 2005). Trust involves dependability and competence. In order to trust companies and form a long-term relation, customers need to feel safe in their dealings with retailers or suppliers, and need assurance that their interaction is confidential. Confidence results from the belief that the trustworthy party is reliable and has high integrity (Morgan & Hunt, 1994). In order to gain loyalty of customers, companies must first gain trust (Reichheld et al., 2000). Trust has a significant positive relationship with functional loyalty, relationship worth, and commitment (Ball, Coelho, & Machas, 2004; Dixon et al., 2005). Morgan and Hunt (1994) indicated, trusted parties believe that perfumed actions will result in positive outcomes.

Morgan and Hunt (1994) proposed the Commitment-Trust Theory of Relationship Marketing. Marketers need to work on preserving relationships with other party. Trust helps consumers to resist short-term alternatives because of the expected long-term benefits. Consumers view high-risk actions in a positive way because of the belief that other party will not act opportunistically. The Morgan and Hunt's Commitment-Trust Theory of Relationship Marketing has identified five antecedents of commitment and trust:

1. Relationship termination costs. A high switching cost can prevent a partner from the termination of the relationship and therefore, stay committed.

2. Relationship benefits. If parties receive the benefits such as high profit, customer satisfaction, and product performance, they will be committed to the relationship.

3. Shared values. The exchange partners, who shared same values, will be more committed to the relationship.

4. Communication. A parties' perception about relevant, reliable, and timely communication will result in greater trust.

5. Opportunistic behavior. A party's believe, that their partner is engaged in opportunistic behavior, will decreases trust and the relationship commitment.

Involvement

Research on consumer involvement goes back to Sherif and Cantril's (1947) who investigated the concept of ego-involvement, which is rooted in social psychology (Laurent & Kapferer, 1985). Involvement has been studied by a number of researchers (C. Homburg & Gierin, 2001; Houston & Rothschild, 1978; Huber & Herrmann, 2001;

Hume et al., 2007; Iwasaki & Havitz, 2004; Laurent & Kapferer, 1985; O'Cass, 2000; S. O. Olsen, 2007; Shih & Fang, 2005; Suh & Yi, 2006). Product involvement refers to a general level of interest or concern about a product class (Suh & Yi, 2006). Involvement is a person's unobservable motivational state of mind, arousal, or interest toward an object (product) or activity (consumption) (S. O. Olsen, 2007). Involvement could be viewed as a trait, an individual state, a process, a moderator, or a mediator (O'Cass, 2000). Most studies identify involvement with a product, a product class, or a specific product category (C. Homburg & Gierin, 2001). Product involvement could be identified with how much time a customer will spend to search for information in order to choose the right selection.

Different levels of product involvement exist. Some products are referred to as low level involvement such as frequently purchased household goods, while others are characterized as higher involvement product such as luxury products. The framework for consumer involvement distinguishes between situational involvement and enduring involvement (Houston & Rothschild, 1978). The level of situational involvement is identified with product related stimuli (rebates, price reduction or coupons), and social psychological stimuli (presence of other people during the consumption of a product or service). Enduring involvement emerges from individuals' value systems and the prior experience with products. High valued products are usually linked to a high level of enduring involvement. While situational involvement is short-lived, enduring involvement reflects stable state and is subject to change over a long period. Situational and enduring involvement influence involvement responses, which are defined as the

complexity of cognitive processes during the purchase decision (Houston & Rothschild, 1978).

Word of Mouth

Word of mouth (WOM) refers to the passing information about consumer personal experiences with a product or service. WOM plays an important part in shaping consumers' behaviors and attitude, and forming loyalty. WOM is often viewed as an outcome of consumer's experience and as a mediator variable impacting both satisfaction and intension to repurchase. Post-purchase communications by consumers or WOM behavior is believed to emerge from the consumption's satisfaction or dissatisfaction (R. L. Oliver, 1980). Satisfied and dissatisfied consumers tend to spread WOM regarding products or services they purchased and used. Likelihood to recommend is an indicator of the strength of a customer's loyalty (Reichheld et al., 2000). Negative WOM is regarded as retaliation from dissatisfied consumers against the company, and can include behaviors such as the product denigration, rumor, unpleasant experience, and complaining (E. W. Anderson, 1998). A study of Coca-Cola's customers demonstrated that dissatisfied customers engage in twice as much word of mouth as satisfied customers (E. W. Anderson, 1998).

In academic research the focus of WOM have been placed on four areas: WOM by opinion leaders; WOM effects on the diffusion of new products; WOM in information search behavioral context; and the antecedents of WOM related to satisfaction and commitment (Cheung, Anitsal, & Anitsal, 2007). Marketers have long recognized WOM as an important source for ideas exchange. WOM recommendations are typically

generated by consumers who do not have personal interests in recommending a particular brand or a certain product. Consumer's recommendations are perceived to be credible. Positive WOM communications is an important aspect of attitudinal loyalty (Dick & Basu, 1994).

The consumer's mood and emotions are considered to have an affect on the WOM behavior (Westbrook, 1987). Consumers appear more likely to engage in WOM when they experience some emotions. Positive WOM could include the likelihood that customers will recommend the product or the service, which means customers are willing to invest time and one's own reputation into becoming an advocate for the company (R. I. Oliver, 1999). Butcher et al. (2001) indicated four variations of the advocacy concept:

1. Providing positive word-of-mouth

2. Recommending the service to others

3. Encouraging others to use the service

4. Defending the service provider's virtues

Several theoretical reasons in support of a positive WOM and customer satisfaction relations are identified: altruism (a desire to help others), instrumentalism (a desire to appear well informed), ego defense, and the reduction of cognitive dissonance (E. W. Anderson, 1998). Other reasons for consumers to be engaged in a positive WOM include to present the self in a positive ways, and a general bias toward the cognitive process and stimuli. Because of the WOM impact on consumer's future behavior, the dissemination of information about the companies' products and services, and loyalty formation, managers try to influence the positive WOM spread through advertising, referral rewards, "viral marketing", and creation of virtual "chart rooms".

Loyalty and Repurchase Differentiation

Different perspectives on the loyalty and repurchase have been reported. Loyalty

and repurchase are often confused constructs (Hume et al., 2007).This could be attributed

to the multidimensional structure of loyalty together with numerous definitions of the

loyalty concept. While some researchers identify loyalty strictly in behavioral terms (E.

W. Anderson, 1998; Auh & Johnson, 2005; Cyr et al., 2007; Dixon et al., 2005; Mellens

et al., 1996; R. I. Oliver, 1999; R. I. Oliver, 1996; S. O. Olsen, 2002; Reichheld et al.,

2000), other researchers recognized additional attitudinal elements (Balabanis et al.,

2006; Bendall-Lyon & Powers, 2003; J. Bloemer, Ruyter, & Wetzels, 1999; J. M. M.

Bloemer & Kasper, 1995; Butcher et al., 2001; Carpenter & Fairhurst, 2005; Dick &

Basu, 1994; Divett et al., 2003; Harris & Goode, 2004; C. Homburg & Gierin, 2001;

Jacoby, 1975; Jacoby & Kyner, 1973; Julander et al., 2003; Pedersen & Nysveen, 2001;

Rowley & Dawes, 2000; Sivadas & Baker-Prewitt, 2000; Taylor & Hunter, 2002; Wanke

& Fiese, 2004; Yang & Peterson, 2004). Earlier research defined loyalty in behavioral

terms (repurchase or purchase frequency). An attitudinal component was recognized later

in research (Ball et al., 2004; Jacoby & Chestnut, 1978).

Behavioral loyalty is solely viewed as repurchase of the product or service. Law,

Hui, and Zhao (2004) used Oliver's definition of loyalty as "a deeply held commitment to

rebuy or repatronize a preferred product/service consistently in the future, thereby

causing repetitive same-brand or same brand-set purchasing, despite situational

influences and marketing efforts having the potential to cause switching behavior"

(p.547). Dixon et al. (2005) indicated that loyal customers are expected to consistently

repurchase in spite of competitive efforts, given that they consider the retailer to have the

best match to their needs. Mellens, Dekimpe, and Steenkamp (1996) reported that brand

loyalty entails actual purchases of a brand, and verbal statements of preference are not

sufficient to ensure brand loyalty. The consumer's disposition to repurchase is an

essential element of loyalty, and loyalty is referred as to the extent of customers intent to

purchase again (Law et al., 2004).

Opponents to expressing loyalty solely in behavioral terms, have stated that

loyalty is a psychological outcome, while repurchase is a behavioral outcome (Blodgett,

Hill, & Tax, 1997). Often customers are retained by a provider for long periods but

without a genuine relationship ever being developed (Butcher et al., 2001). On the other

hand, a customer may not purchase frequently from a firm, even though he or she may

feel something of a relationships towards that firm (Barnes, 1997). Psychologically loyal

customers may not purchase from a service provider because some circumstances could

prevent them (Barnes, 1997; Butcher et al., 2001). The difference between loyalty and

repurchase can be explained by the level of the consumer's commitment to the brand.

True brand loyalty or repurchase loyalty is based on brand commitment, while spurious

loyalty is based on inertia (J. M. M. Bloemer & Kasper, 1995). Because of commitment,

the consumer may repurchase the same brand the next time he or she needs to buy the

product again. Spuriously loyal consumers are not committed to the specific brand;

therefore, they may or may not repurchase it again. Bloemer and Kasper (1995)

indicated:

> The repeat purchasing behavior is the actual rebuying of a brand. Only the
> behavior of rebuying is important, regardless of the consumer's degree of
> commitment to the brand. However, brand loyalty not only concerns the behavior
> of rebuying, but also takes into account that actual behavior's antecedents. (p
> 313).

From the literature review five factors found to be important in the loyalty-repurchase differentiation: attitude, inertia, changes in need, multi-brand loyalty, and social and situational factors.

Attitude

Dick and Basu (1994) defined attitude as "an association between an object and an evaluation" (p.100). Although attitude considered to be related to behavior, incompatibility between attitude and behavior may occur (Rowley & Dawes, 2000). Attitude could be a positive as well as a negative. Consumers may have a favorable attitude towards a brand but will not repurchase that brand. On the other hand, consumers might have low attitude but be engaged in a higher repurchase behavior.

Based on the level of attitude, the difference between loyalty and repurchase is demonstrated by two scenarios: spurious loyalty and latent loyalty (Dick & Basu, 1994). Rowley and Dawes (2000) found that spurious loyal consumers are particular prone to defect if circumstance have changed. The spurious loyal buyers lack any attachment to brand attributes. Therefore, consumers can easily switch to another brand that offers a better deal, coupons, or have a better visibility. Bloemer and Kasper (1995) indicated:

> For this consumer, the reason for buying the same brand again might be the comfort of not being forced to make a new choice, the time saved when buying the same brand again, the feeling of indifference with the choice, the familiarity with the brand, or the reduction of perceived risk. (p.313).

Inertia

Inertia can contribute to consumer's higher repeat buying rate despite being non-loyal (Mellens et al., 1996). In this case consumers may stay with the same brand because they are not prepared to spend any effort and time to search for other brands. Consumers do not evaluate competitors and use simple decision making rules to repurchase the same product or brand. Mellens et al. (1996) indicated, "A study of Hoyer (1984) concluded that inert consumers have different motives, different decision rules and requires other marketing actions than brand loyal consumers" (p. 511). Satisfaction with the brand or product plays an important role in keeping inert consumers. Those consumers have a high chance of switching to different brands or products because of their low commitment and attachment.

Change in Need

According to Oliver (1999), the decrease in the repurchase rate for loyal consumers and the increase in the repurchase rate for non-loyal consumers can be attributed to the change in consumer's need. The consumer can withdraw from the product category due to his or her change in need and behavior such as smoking cessation, diet, or health related issues. Furthermore, the change in needs can occur when the consumer matures, and his or her new needs replace the old. In addition, competition plays a role in the consumer's change in need. A competitive innovation can fulfill the consumer's needs more efficiently, and therefore, affect the loyal consumers repurchase rate (R. I. Oliver, 1999).

Multi-Brand Loyalty

Consumers can have preferences for different brands for the same product or service. This is especially true for low involvement goods. Mellens et al. (1996) stated that the consumer often does not evaluate brands on a continuous scale, but classifies them as acceptable or unacceptable. Inconsistent purchasing behavior could easily mask loyalty if the consumer is multi-brand loyal. Jacoby and Chestnut (1978) concluded that it would be unwise to infer loyalty or disloyalty solely from repetitive purchase patterns without further analysis. In cases of preference to more than one brand, a consumer might be indifferent between them and exhibit loyalty to a group of brands rather than to a single brand (Mellens et al., 1996). A problem with multi-brand loyalty is that it is difficult to distinguish this type of behavior from brand switching, especially if only a few brands are available.

Social and Situational Factors

Dick and Basu (1994) examined the affect of subjective norms and situational factors on repeat patronage. Social or subjective norms are defined as "perceived behavioral norms or role requirements, if contrary to an attitude, might render it unrelated to behaviors" (Dick and Basu, 1994, p.105). A consumer might have a high attitude toward a particular product but be reluctant to repurchase it due to the disapproval or perception from other people. Rowley and Dawes (2000) indicated that repeat purchase might be constrained by convenience or absence of alternatives. In the public sector including schools and hospitals, consumers may have limited options for alternative providers. However, if alternatives become available, the consumer could stop the

repurchasing pattern. According to Dick and Basu (1994), high switching cost is a

common strategy for companies to keep their customers and to advocate loyalty,

especially in industrial markets.

Rowley and Dawes (2000) identify two loyal consumers groups who experience a

decrease in the repurchase rate: disturbed and disenchanted. Factors influencing

consumer behavior might include bad service experiences, unfavorable comparisons with

other products and services, exposure to competitor's products, and changes in the match

with customer expectations. Organizations can bring those consumers back by offering

new products or services, providing attractive packages, re-affirming the positive

qualities of the products, better communicating the product value, engaging in the

positive WOM, and placing greater emphasis on relationship marketing (Rowley &

Dawes, 2000). In addition, the organization should assure customers that any major

problems with the product or service will be eliminated.

The differentiation between loyalty and repurchase is summarized in Table 4,

which provides two scenarios (high loyalty-low repurchase and low loyalty-higher

repurchase) and their attributing factors.

Table 4

Loyalty and Repurchase Differentiation

High Loyalty-Low Repurchase	High Repurchase -Low Loyalty
Attitude (Latent Loyalty)	Attitude (Spurious Loyalty)
Change in Need	Change in Need
Multi-branding	Inertia
Social and Situational Factors	Social and Situational Factors

Satisfaction

Theoretical Background of Satisfaction

For more than 30 years satisfaction has been a central concept in marketing (Heitmann et al., 2007). Most research has been done in the area of customer satisfaction (Preis, 2003). Customer satisfaction or dissatisfaction is one of the core marketing concept (Patterson, Johnson, & Spreng, 1997). An increase of customer satisfaction is a strategic goal for many corporations to achieve a competitive advantage (V. Mittal & Kamakura, 2001; Patterson et al., 1997). While many firms and industries around the world monitor customer satisfaction on a continuous basis, Sweden was the first country to monitor customer satisfaction on a national level (the Annual Customer Satisfaction Barometer) in order to promote quality and make industries more market oriented and competitive (C. Fornell, 1992). For years companies invested significant resources to improve their satisfaction (Durvasula et al., 2004). Satisfaction indicates the general health of the organization, its future prospects, and provides companies with many benefits including forming consumer loyalty, preventing customer churn, reducing marketing cost, and enhancing business reputation (C. Fornell, 1992). The success of the firm's strategy depends on the company's ability to fulfill its promises to consumers, which in turn leads to forming long-term profitable relationship (Carpenter & Fairhurst, 2005). The positive link between customer satisfaction and the profit of corporations was investigated by a number of researchers (E.W. Anderson, Fornell, & Lehmann, 1994; E. W. Anderson & Mittal, 2000; Edvardsson et al., 2000; C. Fornell, 1992; Hallowell, 1996; Reichheld et al., 2000; M. Soderlund & Vilgon, 1999).

The concept of satisfaction has been viewed and defined differently by researchers. Satisfaction is a multidimensional concept and can be perceived on different levels: satisfaction with the product itself, including consumers evaluation of the product performance; satisfaction with the sales process, including interactions between sales personnel and consumers; and satisfaction with after sales service, including quality of service and the experience with the service provider (C. Homburg & Gierin, 2001). Carpenter and Fairhurst (2005) indicated that the majority of research examined satisfaction on a product level. Research in other areas such brand, store and sales personnel is less developed conceptually and empirically (Carpenter & Fairhurst, 2005).

Satisfaction is often viewed as an independent construct which is raised from the service quality. In other words, service quality leads to customer satisfaction. However, the confusion between customer satisfaction and quality constructs in the service industry was noticed in the earlier research (Swanson & Davis, 2003; Yu & Dean, 2001).

Satisfaction is defined as the outcome of the subjective evaluation that the chosen alternative meets or exceeds the expectations (J. M. M. Bloemer & Kasper, 1995); a positive affective state resulting from an evaluation of performance based on overall previous purchasing and consumption experiences with a certain product or service (Tsai et al., 2006); a global evaluation or feeling state (S. O. Olsen, 2007); an evaluative summary of consumption experience, which is based on the differences between expectation and the actual performance perceived after consumption (Suh & Yi, 2006).

Many definitions of the satisfaction are based on the Oliver's disconfirmation paradigm. According to the disconfirmation paradigm, satisfaction is the notion of the consumer comparison between the expectation and performance (J. M. M. Bloemer &

Kasper, 1995). Bloemer and Kasper (1995) refer to this type of satisfaction as manifest satisfaction. However, in some cases it could be difficult or consumers are not capable of forming expectations, evaluating performance, and comparing the two as independent elements. In that case, satisfaction is defined as latent satisfaction, which is the result of an implicit evaluation. Bloemer and Kasper (1995) stated that the difference between manifest and latent satisfaction is not absolute.

The satisfaction response can be broken down into cognitive and affective components (Durvasula et al., 2004; C. Homburg & Gierin, 2001; R. L. Oliver, 1993; Szymanski & Henard, 2001; Yu & Dean, 2001). Cognition satisfaction takes place when consumers form pre-consumption expectations, observe the product or product attributes performance, compare the performance with prior expectation, form perceptions, and compare perceptions with expectations. Based on those elements, consumers form a satisfaction judgment. Oliver (1993) stated that in this case, disconfirmation is the most influential criteria on satisfaction. Other cognitive elements include equity (consumer perceived fair treatment) and attribution (consumers attribute favorable outcomes to themselves, while unfavorable to others).

The affect component of satisfaction is based on post-purchase attributes and includes two states: positive affect on consumption, which is identified with success, and negative affect on consumption, which is identified with failure. Affect includes emotional components such as happiness, surprise or disappointment (Yu & Dean, 2001). Yu and Dean (2001) stated that emotions could be one of the core components of satisfaction that distinguish customer satisfaction from service quality. One of the major issues in the satisfaction research is that many researchers concentrate on cognitive

elements and do not include the affective component of satisfaction (Strauss & Neuhaus, 1997).

Satisfaction is often viewed as a cumulative satisfaction, which is based on the overall experience rather than transaction-specific satisfaction (C. Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Garbarino & Johnson, 1999; C. Homburg & Gierin, 2001; V. Mittal & Kamakura, 2001; L. L. Olsen & Johnson, 2003; S. O. Olsen, 2007; Yang & Peterson, 2004).

Earlier studies defined satisfaction as transaction-specific product episodes, while recent studies argue for defining satisfaction as the customer's overall experiences or cumulative satisfaction (M. D. Johnson, Gustafsson, Andreassen, Lervik, & Cha, 2001; S. O. Olsen, 2002). The transaction-specific approach to satisfaction is an emotional response by the consumer to the most recent transactional experience with an organization. This approach occurs at the specific time following the consumption (R. L. Oliver, 1993; Yang & Peterson, 2004).

In contrast, the overall or cumulative satisfaction approach reflects customers' general impression of a product or service performance. "The overall satisfaction perspective views customer satisfaction in cumulative evaluation fashion that requires summing the satisfaction associated with specific products and various facets of the firm" (Yang and Peterson, 2004, p. 803). Cumulative satisfaction includes multiple components such as product satisfaction (quality, price, or brand name), interpersonal satisfaction (the salesperson trustworthiness, knowledge, understanding customer, or after sales service), and performance satisfaction (delivery, orientation, installation, or training) (C. Homburg & Gierin, 2001; C. Homburg & Rudolph, 2001; Preis, 2003). Consumers can be satisfied

with the product overall, but they may not be satisfied with other aspects such as service

or prices (Dixon et al., 2005). Cumulative satisfaction is considered to be a better

predictor of economic performance and subsequent behavior (S. O. Olsen, 2007), and to

be a better predictor of customer loyalty (Yang & Peterson, 2004).

Expectation-Confirmation Theory

The most widely accepted theory of satisfaction is the Expectation-Confirmation

or the Expectation-Disconfirmation Theory (Andreassen & Lindestad, 1998;

Bhattacherjee, 2001; Hsu, Chiu, & Ju, 2004; Liao et al., 2007; R. L. Oliver, 1980, 1993;

Spreng, MacKenzie, & Olshavsky, 1996), which originated from the Expectation

Disconfirmation Paradigm (Patterson et al., 1997; Preis, 2003). The theory is used in the

consumer behavior literature to study consumer satisfaction, post-purchase behavior, and

service marketing (Hsu et al., 2004). The satisfaction model is applicable in business to

consumer as well as business to business environments. However, satisfaction research in

industrial or business to business areas is not as well developed as that of consumer

goods or services (Patterson et al., 1997). The conceptual model of satisfaction is

illustrated in Figure 3.
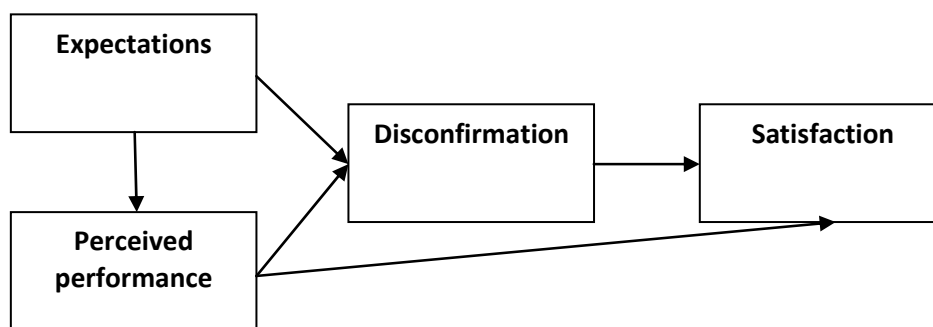
Figure 3: The conceptual model of satisfaction (adapted from Patterson et al., 1997).

The model of satisfaction is a function of expectations and expectancy disconfirmation (R. L. Oliver, 1980). The major constructs in the model are expectations, perceived performance, disconfirmation, and consumer satisfaction. Expectations include anticipated behavior with expected product attributes (Spreng et al., 1996). Consumers use their expectations to evaluate performance and to form a disconfirmation judgment. The disconfirmation construct is the perceived difference between what was received and what was expected (Patterson et al., 1997). All things being equal, the higher one's expectations, the less likely that performance can meet or exceed them, producing a negative relationship between expectations and disconfirmation. On the other hand, the higher the perceived performance, the more likely expectations will be exceeded, resulting in a positive relationship between perceived performance and disconfirmation.

Oliver's (1980) research supported previous research that post usage ratings of satisfaction appears to be a linear function of a combination of expectations of prior attitude and disconfirmation effect. Results indicated that disconfirmation has the most immediate impact on satisfaction. The Expectation-Confirmation Theory stated that consumer expectations together with perceived product or service performance lead to post-purchase satisfaction. This relation is mediated through disconfirmation between expectations and perceived performance, which could be positive (product outperforms expectations) or negative (product fails to meet expectations). Positive disconfirmation results in consumer satisfaction, while negative disconfirmation leads to consumer dissatisfaction (Patterson et al., 1997).

The conceptual model of satisfaction was extended further by including customers' repurchase intention, which was preceded by customer satisfaction (Liao et

al., 2007), and by incorporating fairness as another antecedent to satisfaction. Customer satisfaction is directly affected by disconfirmation that resulted from a customer's pre-purchase expectations and post-purchase performance of a product or service.

The Expectation-Confirmation Theory was applied to information systems by integrating the concept of the technology acceptance model (TAM) to reflect the impact of a customer's expectation of system-specific attributes on customer satisfaction (Bhattacherjee, 2001). Additional antecedents in the satisfaction model that builds on the disconfirmation paradigm were proposed: satisfaction with the product outcome itself and satisfaction with the information (Spreng et al., 1996). The research findings indicated strong support for the additional antecedents and helped to clarify the roles of desires, expectations, and performance in the satisfaction formation process.

Although the Expectations-Confirmation Theory dominates marketing research and managerial practice, several limitations indicate that the theory does not provide a comprehensive view of satisfaction (Spreng et al., 1996). The dominant model of consumer satisfaction fails to take into account the concept of satisfying the needs and desires of the consumer. Instead, satisfaction research has focused primarily on the disconfirmation of expectations, rather than desires as the key determinant of satisfaction. A reason for the researcher's debate regarding the nature of the effect of disconfirmation on satisfaction arises from the definition of predictive expectations as the comparison standard for perceived performance. Other comparison standards such as desires, ideals, equity, or past product and brand experience have been proposed.

The Expectation-Confirmation Theory also lacks consideration of the impact of social norms and personal characteristics on an individual's behavior (Liao et al., 2007).

More longitudinal studies in satisfaction research need to be conducted, especially in the area of services, where most past research has used data collected at a single point in time (Patterson et al., 1997).

Satisfaction and Loyalty

Many studies have been concentrated on the investigation of the satisfaction-loyalty relationship (R. E. Anderson & Srinivasan, 2003; T. W. Andreassen & T. Lindestad, 1998; Auh & Johnson, 2005; Balabanis, Reynolds, & Simintiras, 2006; Bloemer & Kasper, 1995; Dixon et al., 2005; Genzi & Pelloni, 2004; Hallowell, 1996; C. Homburg & Gierin, 2001; Julander, Soderlund, & Soderberg, 2003; Lam, Shankar, Erramilli, & Murthy, 2004; B. Mittal & Lassar, 1998; V. Mittal & Kamakura, 2001; Newman & Werbel, 1973; R. I. Oliver, 1999; L. L. Olsen & Johnson, 2003; S. O. Olsen, 2002, 2007; S. O. Olsen, Wilcox, & Olsson, 2005; Sivadas & Baker-Prewitt, 2000; Suh & Yi, 2006; Szymanski & Henard, 2001; Yang & Peterson, 2004; Yu & Dean, 2001).

Despite these numerous studies, Oliver (1999) stated that an inquiry into the relevant literature shows that the satisfaction-loyalty link is not well defined. Bloemer and Kasper (1995) indicated that many studies had downsides because they did not take into account the differences between repurchase and loyalty, and the differences between spurious and true loyalty while investigating the relationship to satisfaction. Furthermore, researchers have concentrated on satisfaction as the independent variable and did not take into account different types of satisfaction.

Two main views emerged from the literature review on the satisfaction-loyalty relationship. The first view concluded that satisfaction is the main driver of consumer

loyalty (Cronin et al., 2000; Dixon et al., 2005; C. Fornell, 1992; Genzi & Pelloni, 2004; Hallowell, 1996; Heitmann et al., 2007; B. Mittal & Lassar, 1998; V. Mittal & Kamakura, 2001; S. O. Olsen, 2007; Szymanski & Henard, 2001; Zeithaml et al., 1996). Heitmann et al. (2007) stated that satisfaction positively affects loyalty, willingness to recommend, and word of mouth. Satisfaction affects future consumer choices, which in turn leads to improved consumer retention. Customers stay loyal because they are satisfied, and want to continue their relationship.

The second view on the satisfaction-loyalty relationship is that while consumer satisfaction may positively influences consumer loyalty, it is not sufficient to form loyalty (Auh & Johnson, 2005; Balabanis et al., 2006; M. D. Johnson et al., 2001; Julander et al., 2003; Kim et al., 2004; R. I. Oliver, 1999; L. L. Olsen & Johnson, 2003; S. O. Olsen, 2007; Reichheld et al., 2000; Suh & Yi, 2006). These researchers argued that although loyal consumers are most typically satisfied, satisfaction does not universally translate into loyalty. Olsen (2007) stated that the direct effect of satisfaction on loyalty varies among industries, and "the correlation between the constructs is often less than 0.30 (Johnson et al., 2001)" (p. 316). Satisfaction is viewed as a necessary step in loyalty formation, but it become less significant as loyalty begins to be set through other mechanisms (S. O. Olsen, 2007). Several researchers (Reichheld et al., 2000; Suh & Yi, 2006) reported that even a loyal satisfied consumer is vulnerable to situational factors such as competitors' coupons or price cuts. Therefore, satisfaction is not likely to be the sole and reliable predictor of loyalty. Satisfaction influences relative attitude, repurchase, and recommendation but has no direct effect on loyalty (Carpenter & Fairhurst, 2005).

One explanation for variations in the satisfaction-loyalty relationship rests on the nature of the judgment tasks involved (Auh & Johnson, 2005). Customers could be very satisfied with their experience and quality of the service, but will not purchase it again due to different factors such as high price.

Oliver (1999) proposed six types of relationship between satisfaction and loyalty. All these relationships rise from different definitions and perspectives on satisfaction and loyalty. On one end of the spectrum, satisfaction and loyalty are two manifestations of the same concept. On the other side, satisfaction and loyalty are very distant. Oliver (1999) demonstrated that ultimate loyalty can totally encompass satisfaction, satisfaction and loyalty can overlap, or satisfaction does not transform to loyalty and can exist without it. Oliver (1999) stated that loyalty emerges as a combination of perceived product superiority, personal fortitude, social bonding, and their synergistic effects.

Bloemer and Kasper (1995) proposed that the positive relationship between manifest satisfaction and true brand loyalty is stronger than the positive relationship between latent satisfaction and true brand loyalty. Their study supports the view that the relationship between consumer satisfaction and brand loyalty is not simple and straightforward. The relationship between customer satisfaction and loyalty is strongly influenced by characteristics of the customer such as variety seeking, age, and income (C. Homburg & Gierin, 2001).

Overall, researchers agreed that when consumers are completely satisfied, they are less likely to defect or switch (Strauss & Neuhaus, 1997). Therefore, satisfaction is one of the important elements in creating consumer loyalty. However, an increase in satisfaction does not produce an equal increase in loyalty for all consumers (M.

Soderlund & Vilgon, 1999). The relationship between satisfaction and loyalty is neither

simple nor linear, and satisfied customers may defect (Rowley & Dawes, 2000). Rowley

and Dawes (2000) stated that a customer's degree of involvement with a product is an

important element in forming loyalty.

For practitioners, customer loyalty leads to an increase in shareholder value and

asset efficiency (C. Homburg & Gierin, 2001; Reichheld et al., 2000). Oliver (1999)

stated "calls for a paradigm shift to the pursuit of loyalty as a strategic business goal are

becoming prominent" (p. 33).

Satisfaction and Repurchase/Repurchase Intent

Early studies in consumer behavior explored the relationship between repurchase

intentions and the level of satisfaction (Howard & Sheth, 1969). While many researchers

view satisfaction as an indicator of repurchase (E.W. Anderson & Sullivan, 1993;

Durvasula et al., 2004; Fullerton, 2005; M. A. Jones et al., 2003; LaBarbera &

Mazursky, 1983; S. O. Olsen et al., 2005; Rauyruen & Miller, 2007; Swanson & Davis,

2003; Tsai et al., 2006; Turel & Serenko, 2004), other researcher demonstrated either the

weak link between these two constructs or no link at all (Hellier et al., 2003; Hicks et al.,

2005; Kumar, 2002; V. Mittal & Kamakura, 2001; Szymanski & Henard, 2001).

Mittal and Kamakura (2001) stated that the satisfaction-repurchase relationship

can display variability due to three main reasons. The first reason includes satisfaction

thresholds, which consist of satisfied consumers who have different levels of repurchase

due to their different characteristics. The second reason includes response bias, which

means that ratings obtained from the survey may not represent a true picture due to

different characteristics of consumers. The third reason includes nonlinearity, which means that satisfaction-repurchase function may be nonlinear and vary for different consumers.

Hicks, Page, Behe, Dennis, and Fernandez (2005) brought attention to the importance of consumer evaluation after the purchase because of the positive relationship between post purchase evaluation and future behavior. Peyrot and Van Doren (1994) stated that a great deal of research on repurchase has been focused on consumer satisfaction and complaint behavior. If consumer expectations are not met, the consumer will be dissatisfied and can complain. This in turn will likely reduce the repurchase rate. Taylor and Baker (1994) investigated the variables affecting consumer decisions regarding purchasing services. They proposed that the combination of service quality and customer satisfaction explains consumer purchase intentions. The highest level of purchase intentions occurs when both service quality and satisfaction are high.

Tsai, Huang, Jaw, and Chen (2006) reported that longitudinal and cross-sectional studies have demonstrated that satisfied consumers are more likely to continue their relationship with a particular organization than dissatisfied ones. In contrast, Olsen (2002) stated that despite the common view that satisfaction is linked to repurchase, few empirical studies can be found that relate satisfaction to actual repurchase behavior. Mittal and Kamakura (2001) indicated that to establish a direct link between repurchase and satisfaction ratings has not been easy for many organizations.

Satisfaction includes cognitive and affective components, whereas repurchase consists of a behavioral component. Repurchase could be based solely on the consumer's goals, and performance on a certain attribute may become more crucial for repurchase

than satisfaction. Oliver (1993) stated that satisfaction and dissatisfaction have different affective consequences, which may be related differentially to repurchase. Mittal and Kamakura (2001) found that under some circumstances, the response bias are so high that satisfaction can be completely uncorrelated to repurchase. Mittal and Kamakura (2001) reported that the function relating repurchase behavior to satisfaction is highly non linear and differ from the function relating satisfaction to repurchase intent (p. 140).

In addition, the satisfaction-repurchase relationship can be affected by consumers' characteristics. Despite the identical ratings on satisfaction, the significant difference was observed in repurchase behavior, which was attributed to differences in consumer age, education, marital status, sex, and area of residency (Mittal & Kamakura, 2001).

Development of Research Questions

The literature review has shown the importance of repurchase or repurchase intent, loyalty, and satisfaction constructs in academic research and for practitioners. To retain consumers, who are loyal and satisfied, is one of the main tasks for companies to achieve a competitive advantage, to increase profitability, and to reduce costs. Satisfied consumers, who repurchase products or services on constant bases, provide organizations with many benefits including the recruitment of new customers through positive word of mouth and recommendations.

The Theory of Planned Behavior by Ajzen (1985, 1991), which applies to studies of the relationships between intentions, attitudes and believes, is utilized by marketers to influence consumer behavior. The theory emerged from the Theory of Reasoned Actions (Fishbein & Ajzen, 1975) by adding the additional variable of perceived behavioral

control. The task for managers is to be able to predict consumer intentions and behavior, and to understand what influences switching behavior.

The literature review provided an overview of consumer loyalty, which has behavioral and attitudinal components. Loyalty is often viewed as a combination of these two elements, such as composite loyalty. Dick and Basu (1994) proposed the attitude-repeat patronage relationship matrix with four scenarios: loyalty (true), spurious loyalty, latent loyalty, and no loyalty. Loyalty is a multidimensional concept and has a number of determinants including commitment, trust, involvement, and word of mouth. The Commitment-Trust Theory of Relationship Marketing by Morgan and Hunt (1994) identified antecedents of commitment and trust.

Satisfaction plays an important role in forming long-term relations with consumers. The cumulative or overall satisfaction includes multiple components such as product, performance, and interpersonal satisfaction. The Expectation-Confirmation Theory by Oliver (1980) identifies satisfaction as a function of expectations and expectancy disconfirmation. The model was extended further by including customer repurchase intention, which was preceded by satisfaction.

Despite the large volume of research in the area of repurchase-loyalty-satisfaction, the findings on the relationship between these variables are conflicting. It seems that links between loyalty, repurchase, and satisfaction are not fully understood yet. The purpose of this study is to further the research on the topic of loyalty, repurchase, and satisfaction. The four loyalty dimensions including commitment, trust, involvement, and word of mouth were investigated and tested to identify which of those dimensions have strong or weak relationships with repurchase or repurchase intent and

satisfaction for consumers of apparel products. In addition, the satisfaction-repurchase/

repurchase intent relationship was examined.

The theoretical model of loyalty dimensions-repurchase/repurchase intent-

satisfaction is presented in Figure 4.
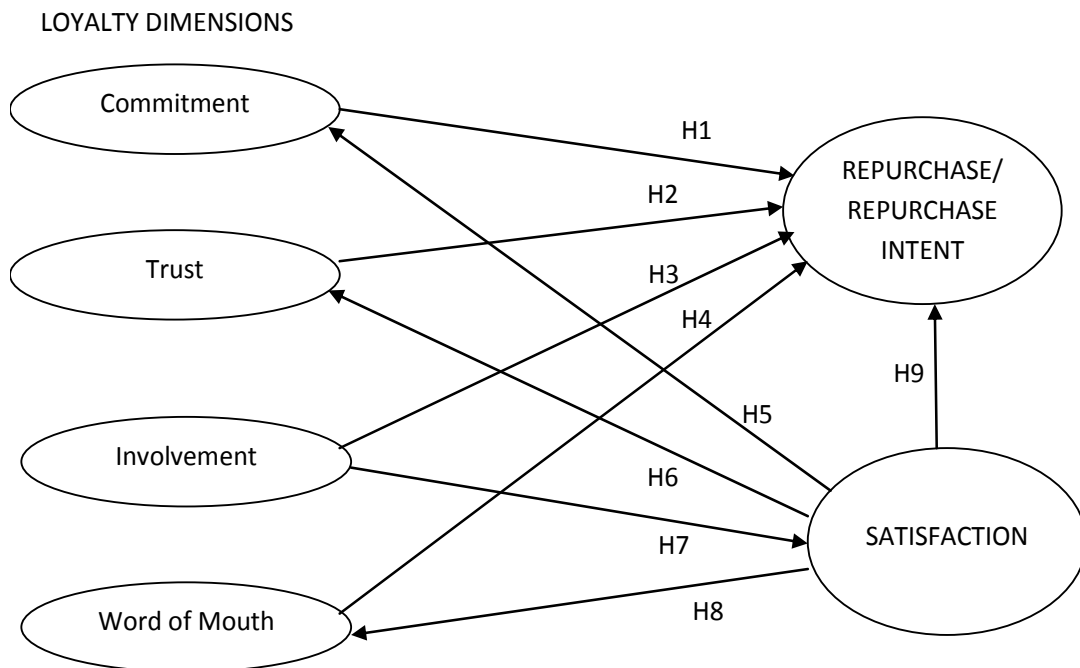
Figure 4: The theoretical model of loyalty dimensions-repurchase/repurchase intent-
satisfaction.

Proposed Hypotheses

Loyalty Dimensions-Repurchase/Repurchase Intent:

H1   Commitment has a strong positive relationship with repurchase or repurchase

intent (Dixon et al., 2005; Fullerton, 2005; Garbarino & Johnson, 1999; Hennig-

Thurau, 2004; Macintosh & Lockshin, 1997; Rauyruen & Miller, 2007).

H2 Trust has a strong positive relationship with repurchase or repurchase intent (Chaudhuri & B., 2001; Garbarino & Johnson, 1999; Rauyruen & Miller, 2007; Taylor et al., 2004; Tung, 2007).

H3 Involvement has a weak positive relationship with repurchase or repurchase intent (S. O. Olsen, 2007; Seiders et al., 2005).

H4 Word of Mouth has a weak positive relationship with repurchase or repurchase intent (J. Bloemer, Ruyter, & Wetzels, 1999; Davidow, 2003).

Satisfaction-Loyalty Dimensions:

H5 Satisfaction has a strong positive relationship with commitment (Dimitriades, 2006; Fullerton, 2005; Garbarino & Johnson, 1999; Hennig-Thurau, 2004).

H6 Satisfaction has a strong positive relationship with trust (Dixon et al., 2005; Garbarino & Johnson, 1999).

H7 Involvement has a weak positive relationship with satisfaction (S. O. Olsen, 2007).

H8 Satisfaction has a strong positive relationship with word of mouth (E. W. Anderson, 1998; Bowman & Narayandas, 2001; Carpenter & Fairhurst, 2005; Chiou, Droge, & Hanvanich, 2002; Davidow, 2003; Durvasula et al., 2004; Lam et al., 2004; Sivadas & Baker-Prewitt, 2000; Swanson & Davis, 2003).

Satisfaction-Repurchase/Repurchase Intent:

H9 Satisfaction has a strong positive relationship with repurchase or repurchase intent (E.W. Anderson & Sullivan, 1993; Davidow, 2003; Durvasula et al., 2004; Fullerton, 2005; Hellier et al., 2003; Hennig-Thurau, 2004; M. A. Jones et al., 2000; M. A. Jones et al., 2003; H.-R. Kim, 2005; Lam et al., 2004; S. O. Olsen,

2002; Rauyruen & Miller, 2007; Sivadas & Baker-Prewitt, 2000; Swanson & Davis, 2003; Szymanski & Henard, 2001; Taylor et al., 2004; Tsiotsou, 2006).

The study findings contribute to a better understanding which of the loyalty dimensions have strong positive relationships with repurchase or repurchase intent and satisfaction, and which have weak positive relationships. By identifying differences between loyalty and repurchase, this study is useful for practitioners to select the best strategy to achieve the corporate goals. Managers could either concentrate more of their efforts on increasing the repurchase rate of consumers, creating a customer's loyalty base, or increasing customer satisfaction.

Chapter Summary

Chapter III Review of Literature provided an overview of background knowledge and critical information pertaining to the research constructs (repurchase/repurchase intent, loyalty, and satisfaction). Repurchase and repurchase intent theoretical background was presented first with the discussion of the Ajzen (1985) Theory of Planned Behavior as the extension of the Theory of Reasoned Action.

The discussion of the theoretical background of loyalty with its different components (behavioral, attitudinal, and composite) followed next. The Dick and Basu (1994) Attitude-Repurchase Relationship Matrix presented four scenarios: loyalty, spurious loyalty, latent loyalty, and no loyalty. Loyalty dimensions such as commitment, trust, involvement, and word of mouth, were discussed separately.

The loyalty and repurchase differentiation was investigated through the literature review. Five factors were found to attribute to the differentiation: attitude, inertia, change in need, multi-brand loyalty, and social and situational factors.

The discussion of the theoretical background of satisfaction with the overview of the Oliver (1980) Expectation-Confirmation Theory followed next. The satisfaction and loyalty relationship along with the satisfaction and repurchase/repurchase intent relationship were investigated.

The overview of the literature review led to the development of the research questions with the proposed model (loyalty dimensions-repurchase/repurchase intent-satisfaction), and nine research hypotheses, which were presented at the end of this chapter.

CHAPTER III

METHODOLOGY

Phase 1: Meta-Analysis

Meta-analysis is a technique for summarizing and testing statistical results across other independent researcher's findings related to the same topic. According to Hunter and Schmidt (1990) the process of accumulating knowledge has two steps: "(1) the cumulation of results across studies to establish facts, and (2) the formation of theories to organize the facts into a coherent and useful form" (p. 13). The ability to summarize findings across multiple situations in order to discover trends is a critical component of scientific research (Saxton, 2006). The meta-analytic process is a useful quantitative method for pulling all the results together into a mathematically concise package for a better interpretation (Leedy & Ormrod, 2005).

Many researchers have suggested that meta-analysis helps in theory development rather than in theory generation by providing the empirical building blocks for theory formation (Hunter & Schmidt, 1990). In addition, meta-analysis provides directions about remaining research issues. This technique is helpful in assessing the level of agreement or disagreement on a topic of a given research question (Saxton, 2006). Ankem (2005) has noted that meta-analysis not only allows more precise results but increases statistical power and reduces the likelihood of a type II error.

Lipsay (2001) summarized four main advantages of meta-analysis:

First, meta-analysis procedures impose a useful discipline on the process of summarizing research findings.
Second, meta-analysis represents key study findings in a manner that is more differentiated and sophisticated than conversional review procedures that rely on qualitative summaries or "vote-counting" on statistical significance.
Third, meta-analysis is capable of finding effects or relationships that are obscured in other approaches to summarizing research.
Fourth, meta-analysis provides an organized way of handling information from a large number of study findings under review. (p.5-6).

Currently, meta-analysis applications are rapidly growing in behavioral sciences, social sciences, psychology, business, medical field, and health care.

The first step in conducting a meta-analysis is to collect studies and to extract information in order to create a database of individual research findings related to the investigated research topic. The focus is the bivariate relationship between the variables of interest. These variables do not have to be the primary focus of the individual studies as long as the relevant statistical information is reported. Lipsey and Wilson (2001) indicated that meta-analysis could be viewed as a form of survey research for individual studies rather than people, where a "survey protocol" is developed in a form of a coding of studies and a population, and the "interview" is conducted by the researcher who extracts needed information, such as quantitative findings, from each individual study and codes this information into the database.

Lipsey and Wilson (2001) identified several eligibility criteria for studies in order to be included in meta-analysis. Studies should have distinguishing features, which identified why those studied qualify for analysis. Studies should have research respondents or subject sample size, which includes characteristics of the study participants. Key variables should be identified, which measure the outcome to address

the research question including control variables or constructs. All sufficient statistical information needs to be collected and coded into the database. The research methods should be specified including research designs and methodologies in order for a study to be qualified for meta-analysis. Cultural and linguistic range, which is the acceptability criteria for the research studies produced in other countries and languages, should be established. Time frame, including the restriction on the period for the collected studies, should be addressed. Publication type, including published journal articles, books, dissertations, technical reports, or conference presentations, should be specified.

The second step in meta-analysis includes the conversion of collected statistical information to the same measurements, if needed. Field (2001) indicated, "In meta-analysis, the basic principle is to calculate effect sizes for individual studies, convert them to a common metric, and then combine them to obtain an average effect size" (p.162). Meta-analysis can be used only if reported statistics are represented in the same statistical form, or could be converted to the same type of quantitative variables in order to be meaningfully compared. Therefore, a meta-analysis excludes a number of empirical studies which reported their results in different metrics. Ideas expressed in theoretical papers are excluded as well. In addition, Lipsey and Wilson (2001) suggested that it is desirable that the collected and summarized study findings have similar research design.

The third step in meta-analysis includes conducting a meta-analysis procedure and analyzing the obtained results. Saxton (2006) indicated that meta-analysis tests whether findings from multiple studies involving bivariate analysis agree or disagree in terms of the direction of association between variables and the strength of that relationship. The goal of meta-analysis is not to average the findings, but to treat data from multiple studies

as a part of a single study. The selection of variables and the effect size are very important. Small sample sizes can cause wide variability across studies. Studies are weighed by sample size taking into account the effect size involved in the bivariate relationship. The mean effect size is calculated, which can be expressed in terms of standard normal deviations, followed by the calculation of the significance value. The significance level can be inferred from the boundaries of confidence intervals around the mean effect size.

The goal of meta-analysis is mainly to address three general issues: central tendency, variability, and prediction (B. T. Johnson, Mullen, & Salas, 1995).

1. Central tendency is related to the question of finding the magnitude of effect across many studies (Field, 2001). This can be addressed by using some variation on the average effect size, the confidence interval around the average, or the significance of the average.

2. The issue of variability relates to the difference between effect sizes across studies. This issue is addressed with tests of the homogeneity of effect sizes.

3. Prediction is related to the question of explaining the variability in effect sizes across studies in terms of moderator variables. Prediction can be examined by comparing study outcomes as a function of differences in characteristics that differ across all studies.

Academic literature identified three most popular approaches for conducting a meta-analysis: the Hedges and Olkin approach (1985), the Rosenthal and Rubin approach (1978), and the Hunter and Schmidt approach (1990) (Ankem, 2005). Field (2001) stated that the Hedges and Olkin approach employs both fixed and random effects models for

combining effect sizes. Hunter and Schmidt (1990) explained the fixed versus random effects distinction in analysis of variance. "If all desired levels of a variable are present in the design, the variable is called a "fixed effect factor". However, if only a sample of the levels is present in the study, then the variable is called a "random effects factor" (Hunter & Schmidt, 1990, p. 405). The Rosenthal and Rubin approach presents only fixed effects, while the Hunter and Schmidt approach uses a random-effects model. Ankem (2005) stated that in the presence of heterogeneity of effect sizes, a random effects model accounts for the heterogeneity between effect sizes.

Johnson, Mullen and Salas (1995) summarized three approaches to meta-analysis presented in Table 5.

Table 5

Three Meta-Analytical Approaches (adapted from Johnson, Mullen and Salas, 1995)

General Issues	Hedges and Olkin (1985)	Rosenthal and Rubin (1978)	Hunter and Schmidt (1990)
Central tendency	Mean weighted effect size, confidence intervals (significance levels)	Mean weighted effect size, combined probability (significance levels)	Mean weighted effect size, confidence intervals (significance levels)
Variability	Homogeneity statistic	Defuse comparison of effect sizes	Test of no variation across effects
Prediction	Continuous models, categorical models, contrasts between mean weighted effect sizes	Correlations, blocking, focused comparisons of effect sizes	Correlation, blocking

Step 1: Database Development

A fairly extensive search for relevant studies on the relationship between loyalty-satisfaction, repurchase-satisfaction, and loyalty-repurchase was conducted. These studies were identified through search engines of electronic databases such as ABI/Inform, ProQuest, WilsonWeb, JSTOR, PsycINFO, UMI, and others by using key words including satisfaction, loyalty, or repurchase. Searches of the references found in the available studies were conducted in addition to the manual searches of peer reviewed journals such as *the Journal of the Academy of Marketing Science, Journal of Marketing Research, Psychology & Marketing, Journal of Financial Services Marketing, Journal of Service Research, International Journal of Service Industry Management, Journal of Consumer Satisfaction, Management Science*, and others.

The relevant studies were coded into three separate databases: Loyalty-Satisfaction, Repurchase-Satisfaction, and Loyalty-Repurchase. Due to the number of researchers who examined Repurchase Intent separately from Repurchase, the Repurchase-Satisfaction database was further divided into two: Repurchase-Satisfaction and Repurchase Intent-Satisfaction.

1. Loyalty- Satisfaction database. The total sample size across the collected empirical studies was 153,150 with 82 reported correlation coefficients or statistics which could be converted to correlations. The correlation coefficients were collected from studies published in peer journals between1992 and 2006. These studies report data from12 different countries. Industries included large and small corporations, retail, banking, e-commerce, hotel, restaurants, cosmetics, recreational facilities, media, insurance, automotive, transportation, and others.

2. Repurchase-Satisfaction database. The total sample size across the collected studies was 13,098 with 11 reported or converted correlations. The collected studies were published in peer journals between 1993 and 2005. These studies reported data from 69 countries and included large and small corporations in the following sectors: automotive, e-commerce, retail, hospitality, industrial suppliers, airlines, banks, military, education, banking, telecommunication, tourism, and others.

3. Repurchase Intent-Satisfaction database. The total calculated sample size across the collected empirical studies was 1,640,056 with 59 reported or converted correlations. The collected studies were published in peer journals between 1993 and 2005. These studies reported data from a number of industries including automotive, e-commerce, retail, hospitality, industrial suppliers, airlines, banks, military, education, banking, telecommunication, and tourism.

4. Loyalty-Repurchase database. The total calculated sample size across the collected empirical studies was 2,172 with 7 reported correlations. The collected studies were published in peer journals between 1993 and 2008. These studies reported data from a number of industries including professional services, e-commerce, software, telecommunications and retail.

Step 2: The Conversion

F-distribution values, t-distribution values, or chi-squares with their corresponding degrees of freedom were converted to Pearson product-moment

correlation coefficients (r). Examples of statistical formulas used in the conversion

process are illustrated in Table 6.

Table 6

The Conversion Statistical Formulas

$r = \sqrt{[t^2/(t^2+df)]}$	t distribution, df (degrees of freedom)
$r = t / \sqrt{[t^2+N-2]}$	N (sample size)
$r = \sqrt{[\chi^2/N]}$	χ^2 (chi square)
$r = \sqrt{[F/(F+df(error))]}$	F distribution
$r = d / \sqrt{[d^2+4]}$	d (effect size)

Not all statistical measurements could be converted to the desired statistics due to

a lack of information available in the studies; therefore, these studies were excluded from

the database.

Few studies conducted two or more analyses under different conditions and

reported more than one correlation coefficient. Therefore, the number of select studies

does not correspond to the number of obtained correlation coefficients.

Step 3: Method of Analysis

Three constructs (loyalty, repurchase, and satisfaction) pertinent to the researched

hypotheses were examined. Lipsey and Wilson (2001) in their book *Practical Meta-*

Analysis illustrated the effect size decision tree for studies involving correlation or

association between variables (see Figure 5). Correlation coefficients are standardized

effect sizes that can be directly compared across studies despite different measures

(Rosenthal, Hoyt, Ferrin, Miller, & Cohen, 2006). The suggested sample size within

individual studies should be at least 20 subjects (Ankem, 2005; Hunter & Schmidt, 2004; Saxton, 2006).


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┌────────────────────────────────────────┐
│ Correlation or association between variables │
└────────────────────────────────────────┘
                    │
┌────────────────────────────────────────┐
│  Both variables are inherently continuous  │
└────────────────────────────────────────┘
                    │
┌────────────────────────────────────────┐
│ Some variables measure on a continuous scale, │
│       some artificially dishotomized          │
└────────────────────────────────────────┘
                    │
          ┌──────────────────────────────────────────┐
          │ Product moment correlation with Hunter & │
          │ Schmidt correction for artificial dishotomization │
          └──────────────────────────────────────────┘
```
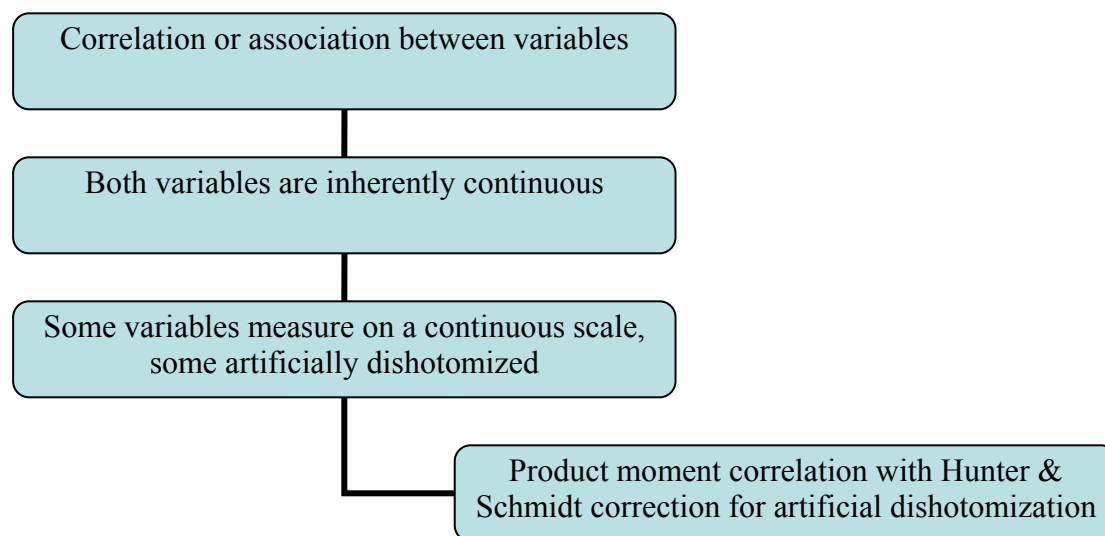
Figure 5. The effect size decision diagram (adopted from Lipsey and Wilson, 2001).

This research employed the Hunter and Schmidt meta-analytical approach and the Hunter and Schmidt software package for computations. The choice was made based on the availability of the Hunter and Schmidt original software package to the disposal of researchers.

Hunter and Schmidt (1990) described the meta-analysis method in their book *Methods of Meta-Analysis: Correcting Error and Bias in Research Findings.* This method weights individual correlations by the sample size and assumes that the correlations entered are independent. If this assumption is violated, it would not affect the calculated mean, but would cause an inaccurate calculation of the sampling error variance. Therefore, it will lead to possible distortion in significance testing (Sundaramurthy, Rhoades, & Rechner, 2005).

After the calculation of the mean weighted correlation across all studies, standard deviation of observed correlation was used to estimate the variability in the relationship. The sampling error, reliability of individual studies, and range restrictions contributed to estimate the true variability around the population correlation (Sundaramurthy et al., 2005).

Hunter and Schmidt (1990) suggested the following steps in conducting meta-analysis:

1. Calculate the desired descriptive statistics for each study available, and average that statistics across studies.
2. Calculate the variance of the statistics across studies.
3. Correct the variance by the subtracting the amount due to sampling error.
4. Correct the mean and variance for study artifacts other than sampling error.
5. Compare the corrected standard deviation to the mean to assess the size of the potential variation in results across studies in qualitative terms. If the mean is more than two standard deviations larger than zero, then it is reasonable to conclude that the relationship considered is always positive. (p.82).

Once the individual effect sizes for studies are calculated, these are combined to obtain an average or pooled effect size, which is a more precise indicator of the strength of relationship between two variables across studies than the effect size of a single study (Ankem, 2005). In the calculation of the pooled effect size, the individual effect sizes are weighted by sample size within each study to give more weight to the results of those studies with larger sample sizes. "Upon calculation of the aggregate effect size, significance in meta-analysis is generally gauged by computing 95% confidence intervals around the average effect size" (Ankem, 2005, p.164).

Hunter and Schmidt (1990) recommended to conduct moderator analyses if the 90% credibility interval surrounding the mean corrected correlation includes zero, or if the study artifacts do not account for more than 75% of the variance across studies.

Moderator analyses provide additional insights into the research relationships and help in further refining the strength of those relationships.

Moderator analyses were conducted by dividing the total sample into subgroups based on identified factors. The following three factors were identified as moderators:

1. Geographic area of the collected sample: North America, Europe, or other regions

2. The category: product or service

3. The business setting: business to business (B2B) or business to consumer (B2C)

Separate meta-analyses for each subgroup were conducted next. The level of variance accounted for, the credibility intervals, and the confidence intervals were examined to determine if a moderator was operative (Sundaramurthy et. al, 2005).

Common Concerns

Several concerns for a meta-analytical technique were raised by researchers. As was stated earlier, meta-analysis can be conducted only if the collected findings could be meaningfully compared such as differences between group means or correlation between variables. However, some studies report their statistical findings in forms which are not suitable for meta-analysis synthesis, but might have significant results.

Ankem (2005) raises the concern that meta-analysis uses only published studies, and the results from the unpublished studies could overturn the significant results obtained using the meta-analytical technique. The issue of inconsistency in reporting research findings across studies was also noted (Saxton, 2006). In addition, individual studies might not provide enough details on the method or instrumentation. The

multiplicity of different measures of operational definitions for the same concept could include difficulties to successfully conduct synthesis of the independent research results.

Hunter and Schmidt (1990) brought attention to the issues of artifacts and their impact on the study outcome. Hunter and Schmidt (1990) indicated that studies are not perfect, and could include many forms of errors affecting the overall results of meta-analysis. Artifacts could include the sampling error, which affects the validity, the error of measurement in the dependent and independent variables, or the dichotomization of continuous variables. Hunter and Schmidt (1990) stated that unreliable data is one of the most difficult artifacts in meta-analysis, and could happen during any step in the scientific process.

Other researches raised the concern that data can be properly interpreted only within the context of the individual study depending on how the observations were initial gathered. Saxton (2006) argued, "if subject populations are given the same tests or interventions using identical measures under similar condition, then one may logically accept that multiple tests will yield a truer representation of a bivariate relationship" (p.161). An issue of heterogeneity of effect sizes was raised, meaning that samples chosen to conduct meta-analysis from the individual studies are not part of the same population. Ankem (2005) noted that homogeneity of effect sizes should be a necessary condition to quantitatively combine data from independent studies.

It is a responsibility of the researcher to identify suitable forms of analytical techniques for conducting a research, which will produces statistically viable results. Keeping in mind the above common concerns, this research employed a meta-analysis

technique in attempt to discover new knowledge in order to further develop the

Marketing discipline and the overall scientific process.

Phase 2: The Field Study

Data Collection

A total of 576 paper-and-pencil surveys were distributed to undergraduate and

graduate students at three colleges (Business, Aviation, and Arts and Sciences) at a

private university located in the Southeastern part of the United States. Students in 19

randomly selected undergraduate and graduate courses were surveyed during the Fall

2008 semester. Course instructors were asked to allocate 15 minutes for the survey

completion either at the beginning or at the end of the class. While some instructors

allocated a credit for the survey completion, others did not.

The intention of the survey was to identify the relationships between different

loyalty dimensions, repurchase, and satisfaction among consumers of apparel products.

Prior to the beginning of the survey, the introductory part explained the purpose of the

research, stated that this survey is a voluntary and anonymous, and provided an

opportunity to request the final results. The survey participants were asked to provide

answers in relation to their personal experiences during the process of purchasing and

owning a product such as a pair of jeans.

Demographic information of participants was obtained in the following areas:

gender, the level of income, occupation, the highest level of education, age, and ethnicity.

Scales, Validity and Reliability

Based on the empirical literature 11 seven-point scales were identified (see Table 7). Validity and reliability issues were examined. Validity is the extent to which the scale measures what is supposed to measure. How accurately the scale items actually measure the researched constructs? The validity of scales ensured that a scale (1) conforms to its conceptual definition, (2) is one-dimensional, and (3) meets the necessary levels of reliability (Hair, Black, Babin, Anderson, & Tatham, 2005).

While validity is the extent to which a scale or set of measures accurately represents the concept of interest, reliability is the consistency with which a scale achieves a certain result. The validity and reliability specify the degree to which the research may have measurement error. Reliability is an assessment of the degree of consistency between multiple measurements of a variable (Hair et al., 2005). The Cronbach's alpha coefficient is widely used as a reliability measure.

The Collaborative Institutional Training Initiative (CITI) course in the Protection of Human Research Subjects was successfully completed by researchers, and the Institutional Review Board (IRB) approvals were obtained from the participating in this research institutions in order to employ human subjects.

Two test studies were conducted to identify the validity and reliability of each of the 11 scales, as well as to clarify the survey instrument. SPSS software was employed. To confirm validity, the researcher compared the Cronbach's alpha coefficients from the original scales with the calculated coefficients from the test studies (see Tables 7 and 8).

Table 7

Original Scales: Loyalty Dimension, Repurchase, and Satisfaction

	Measures and Variables	Scale Origin	Reported Reliability Coefficient
	Loyalty Dimensions		
1	Consumer's commitment to buy the same brand within a specified product category rather than seek variation.	Baumgartner and Steenkamp (1996)	0.86
2	A person's commitment over time to purchase a specified brand within a specified product category.	Sen, Gurhan-Canli, and Mortwitz (2001)	0.91
3	Trust in Brand	Chaudhuri and Holbrook (2001)	0.81
4	Purchase decision involvement	Mittal (1989)	0.79
5	Word-of-Mouth Intentions (Positive)	Price and Arnould (1999)	0.95
	Repurchase		
6	Purchase frequency (product specific)	Dahl, Manchanda, and Argo (2001)	0.8
7	Consumer's general tendency to buy the same brands over time rather than switching around to try other brands.	Burton, Lichtenstein, Netemeyer, and Garretson (1998)	0.92
8	Purchase intention	Putrevu and Lord (1994)	0.91
	Satisfaction		
9	Satisfaction (general)	Westbrook and Oliver (1991)	0.95
10	Satisfaction (consumption) with a product after the selection/purchase has been made.	Huffman and Kahn (1998)	0.85
11	Satisfaction (performance)	Tsiros and Mittal (2000)	0.95

Method of Analysis

A study was conducted to identify relationships between loyalty dimensions, repurchase, and satisfaction. From the review of the empirical literature each of the constructs was divided into several areas with the use of different scales. A factor structure analysis was conducted to identify patterns in the correlation matrix for the researched variables.

Confirmatory Factor Analysis (CFA) examines the loading of the variables on the factors. CFA involves the estimation of a prior measurement model, wherein the observed variables are mapped onto the latent constructs according to theory, and prior testing by the researcher (Froehle & Roth, 2004). Goodness of fit index is one of the indicators of the fit of the measurement model. Factor loadings are indicators of the correlation between a variable and a factor.

The measurement model was modified by removing multidimensional items to improve the scale by increasing reliability. Froehle and Roth (2004) acknowledged that "cleansing of the scales is an important and theoretically valuable step, as it helps ensure that the scales are as homogeneous, and the measures are as congeneric, as possible. It also helps ensure that our claims of both convergent and discriminate validity are reinforced" (p. 14).

Test Studies

Two test studies were conducted to ensure that identified and previously used measurements of 11 scales are reliable and valid. The test study also tests the survey items in terms of clarity. Pre-testing of scales helped to identify invalid measures.

The first test study sample consisted of 51 undergraduate and graduate students, who completed the paper-and-pencil survey of a total of 50 questions. A feedback on survey questions from the test study participants was useful tool in providing clarity of the questions. The researcher used SPSS software to conduct analyses.

First, items with reversed coding were transformed into same variables. Factor analyses were conducted next to assess the dimensionality of a set of variables and to assess the interrelationships. Factor analysis requires two stages: factor extraction and factor rotation. While factor extraction helps to make an initial decision about the number of factors underlying a set of measured variables, factor rotation assists to statistically manipulate the results (i.e., to rotate factors) to make the factors more interpretable, and to make final decisions about the number of underlying factors. A factor matrix analysis assesses the dimensionality of items. Based on the results of Varimax rotation, some items were excluded to achieve unidimensionality, meaning that all items are associated with each other and represent a single concept. A factor matrix helps to explain the interrelationships between each variable and the factor.

Squared factor loadings are important indicators of the percentage of the variance the original variable is explained by the factor. The high loading of variables indicates a stronger correlation between the variable and the factor. The assessment of the scale reliability and validity was conducted as well. The calculated reliability coefficients (the Cronbach's alpha) were compared with the original scales reliability coefficients. The obtained results demonstrated that very low variances were extracted for several tested items. Few items were excluded from the original survey instrument in order to increase reliability, while new items were added.

The second test study was conducted to re-test the instrument for the problematic items. The sample of 42 college undergraduate students completed the revised paper-and-pencil survey. Based on participant's comments, factor analysis and reliability analysis, the survey items were modified for the second time (see Table 8).

Table 8

Modified Scales: Loyalty Dimensions, Repurchase, and Satisfaction

	Measures and Variables	Number of Items	Calculated Reliability Coefficient
	Loyalty Dimensions		
1	Consumer's commitment to buy the same brand within a specified product category rather than seek variation.	11	0.87
2	A person's commitment over time to purchase a specified brand within a specified product category.	3	0.81
3	Trust in Brand	4	0.9
4	Purchase decision involvement	9	0.85
5	Word-of-Mouth Intentions (Positive)	3	0.87
	Repurchase		
6	Purchase frequency (product specific)	7	0.93
7	Consumer's general tendency to buy the same brands over time rather than switching around to try other brands.	5	0.93
8	Purchase intention	9	0.86
	Satisfaction		
9	Satisfaction (general)	6	0.89
10	Satisfaction (consumption) with a product after the selection/purchase has been made.	9	0.79
11	Satisfaction (performance)	3	0.92

Chapter Summary

Chapter III Methodology provided an overview of two phases of this research: meta-analysis and the field study. The meta-analytical technique was discussed first. Three steps of conducting meta-analysis (database development, the conversion, and the method of analysis) were presented. In addition, the common concerns with employing the meta-analysis method were raised.

In the second phase, the field study methodology was examined including the data collection. Through examining literature, loyalty, repurchase and satisfaction scales were identified. After the research model was established with each construct specified, two test studies were conducted. The main goal was to ensure that identified and previously used measurement scales are reliable and valid. The test studies also tested the survey items in terms of clarity. Pre-testing of scales helped to identified invalid measures. Upon the results of analyses, the scales were modified twice. The final version of the survey instrument with 69 items is presented in Appendix A.

CHAPTER IV

ANALYSIS AND PRESENTATION OF FINDINGS

<u>Introduction</u>

The overall objective of this study is to provide a quantitative review of loyalty-repurchase-satisfaction constructs and to investigate their relationships on a sample of consumers of apparel products. The study was conducted in three phases. The purpose of the first phase was to statistically identify the magnitude and the direction of relationships (loyalty-satisfaction, repurchase-satisfaction, and loyalty-repurchase) by using a meta-analysis technique (Hunter & Schmidt, 1990).

The purpose of the second phase was to statistically identify relationships between the researched constructs, such as loyalty dimensions (commitment, trust, involvement, and word of mouth), repurchase/repurchase intent, and satisfaction for customers of apparel products, by using a factor analysis and structural equation modeling techniques.

The purpose of the third phase was to compare the meta-analysis results, obtained from the large number of independent empirical studies, with the field study results, obtained from surveying consumers of apparel products.

This chapter presents data analysis and results for the methodology described in Chapter III. The secondary data (phase 1) and primary data (phase 2) were analyzed and presented to determine whether the proposed research hypotheses were supported.

Phase 1: Meta-Analysis

A meta-analysis technique was performed after collecting all available studies reporting correlation coefficients or statistics that could be converted to correlation coefficients with the reported sample sizes on Loyalty-Satisfaction, Repurchase-Satisfaction, and Loyalty-Repurchase. As was stated prior in Chapter III, a large number of separately reported statistical findings for repurchase and repurchase intent was identified. Therefore, studies in this group were further divided into two subgroups: repurchase and satisfaction relations; and repurchase intent and satisfaction relations.

The Hunter and Schmidt (1990) method of meta-analysis with the software was employed, which was discussed in detail in Chapter III. The objective of meta-analysis was to identified the strength of the relationship between researched constructs and to identify the influence of any moderators (Whitener, 1990). The employed technique weights individual correlations by the sample size and assumes that the correlations entered are independent (Hunter and Schmidt, 1990). The variability in the relationship between studied variables was estimated by using the standard deviation of observed correlation (Sundaramurthy et al., 2005). The statistical significance was assessed with a 95% confidence and 90% credibility intervals. The moderator analyses were conducted to further investigate the relationships between the researched constructs.

Moderator variables are additional independent factors that influence the relationship between the research constructs (Hair et al., 1998). The presence of moderator variables indicates that there may be more than one population involved. The variance in the effect sizes and the credibility intervals indicate whether moderators might be present. If the study artifacts do not account for more than 75% variance across studies, or if the credibility or confidence intervals surrounding the mean corrected correlation include zero, then the mean corrected effect size is probably the mean of several subpopulations identified by the operation of moderators (Schmidt, & Hunter, 1980; Sundaramurthy et al., 2005; Whitener, 1990). If the moderator is present, the population should be broken down into subpopulations. "If the effect size is the mean of several population parameters, or subpopulations identified by the operation of moderators, then the variance in observed effect sizes is due to both true variance in effect sizes and variance due to sampling error" (Whitener, 1990, p. 316).

Moderator analyses were conducted by dividing the total sample into three main sub-groups based on the specific factors, which were identified through the literature review and the compiled databases (Sundaramurthy et al., 2005). Separate analyses for the identified factor were conducted for each sub-group:

1. The geographic area of the collected sample (North America, Europe, and Other)

2. The category (Product and Service)

3. The business setting (B2B and B2C)

The Hunter and Schmidt (1990) software package was utilized to compute the following statistics: the total sample size; correlations (observed and corrected); standard

deviations (observed, residual, and corrected); and the percent of variance attributed to the sampling error.

Meta-Analysis: Loyalty-Satisfaction

The results of the conducted Loyalty-Satisfaction meta-analysis are displayed in Table 9. The total sample size across the collected empirical studies was 153,150 with 82 reported or converted correlations. The mean correlation between loyalty and satisfaction was 0.5431. The sampling error accounted only for 1.02% of the observed variance, indicating the presence of moderator variables. The finding of a statistical significance at the 95% confidence level indicated that loyalty and satisfaction correlations fall within a 0.23-0.85 interval. Neither the credibility interval nor the confidence interval include zero, which indicates that the observed relationship is consistently positive.

Moderator analyses were conducted to further clarify the strength of the loyalty-satisfaction relationship.

Table 9

Loyalty-Satisfaction Meta-Analysis

Measure	Output
Sample Size	153,150
Number of correlations	82
Observed Correlation (r)	0.5431
Observed SD	0.1612
90% Credibility Interval	0.2832<0.5431<0.8030
% Variance attributable to SE	1.02%
SD residual	0.1603
Corrected Correlation (r)	0.5431
SD of Corrected r	0.1585
95% Confidence Interval	0.2324<0.5431<0.8538

Moderator Analyses: Loyalty-Satisfaction

Moderator analyses were conducted on three identified factors: the geographic area of the collected sample (North America, Europe, and Other); the category (product and service); and the business setting. The majority of the sample was collected in the B2C setting (82 versus 3). Therefore, moderator analysis for the B2B setting was conducted with the assumption that the results of B2C setting are similar to the already obtained loyalty-satisfaction meta-analysis results.

Moderator analyses for the geographic area factors are presented in Table 10. The total sample size across the collected empirical studies was 125,655 with 31 reported or converted correlations for North America; 22,488 with 36 reported or converted correlations for Europe; and 4,911 with 15 reported correlations for other regions, which included Australia, Cyprus, South-Africa, Hong Kong, Korea, and Malaysia. The strongest relationship between loyalty and satisfaction is displayed by the "Other" factor,

with mean correlation of 0.5985, followed by North America (0.5127) and Europe

(0.4129). The sampling error accounted for 0.30% of the observed variance for North

America, 3.63% for Europe, and 5.86% for other regions. The large percentage of

unexplained variances for the geographic area factor might indicate the possible presence

of additional factors moderating the observed results.

The finding of a statistical significance at the 95% confidence level indicated that

loyalty and satisfaction correlations for the North America factor fall within a 0.11-0.92

interval; Europe fall within a 0.08-0.74 interval; and the "Other" factor fall within a 0.32-

0.87 interval. Neither the credibility interval nor the confidence interval for these three

geographic areas include zero, which indicates that the observed relationships between

loyalty and satisfaction are consistently positive.

Table 10

Loyalty-Satisfaction Moderator Analyses: Geographic Area

Measure	North America	Europe	Other
Sample Size	125,655	22,488	4,911
Number of correlations	31	36	15
Observed Correlation (r)	0.5127	0.4129	0.5985
Observed SD	0.2081	0.1742	0.1467
90% Credibility Interval	0.1760<0.5127<0.8494	0.1357<0.4129<0.6901	0.3678<0.5985<0.8292
% Variance attributable to SE	0.30%	3.63%	5.86%
SD residual	0.2078	0.171	0.1423
Corrected Correlation (r)	0.5127	0.4129	0.5985
SD of Corrected r	0.2053	0.169	0.1407
95% Confidence Interval	0.1103<0.5127<0.9151	0.0817<0.4129<0.7441	0.3227<0.5985<0.8743

Moderator analyses for the category factor (product and service) are presented in

Table 11. The total sample size across the collected empirical studies was 7,642 with 15

reported or converted correlations for the product category; and 145,504 with 67 reported or converted correlations for the service category. The mean correlation between loyalty and satisfaction was 0.4703 for the product category, and 0.5477 for the service category, which appears to be the strongest between those two factors. Sampling errors accounted for 4.12% of the observed variance for the product category and for 0.88% for the service category.

The finding of a statistical significance at the 95% confidence level indicated that loyalty and satisfaction correlations fall within a 0.15-0.80 interval for the product category, and within a 0.24-0.86 interval for the service category. Neither the credibility interval nor the confidence interval include zero, which indicates that the observed relationships are consistently positive.

Table 11

Loyalty-Satisfaction Moderator Analyses: The Category

Measure	Product	Service
Sample Size	7,642	145,504
Number of correlations	15	67
Observed Correlation (r)	0.4703	0.5477
Observed SD	0.1702	0.1599
90% Credibility Interval	0.2002<0.4703<0.7404	0.2897<0.5477<0.8057
% Variance attributable to SE	4.12%	0.88%
SD residual	0.1667	0.1592
Corrected Correlation (r)	0.4703	0.5476
SD of Corrected r	0.1647	0.1573
95% Confidence Interval	0.1475<0.4703<0.7931	0.2394<0.5477<0.8560

The moderator analysis for the B2B factor is presented in Table 12. The total sample size across the collected empirical studies was 396 with 3 reported or converted

correlations for the product category. The mean correlation between loyalty and satisfaction was 0.7104, which is significantly strong. The sampling error accounted for 11.13% of the observed variance.

The findings of a statistical significance at the 95% confidence level indicated that loyalty and satisfaction correlations for the B2B factor fall within a 0.47-0.95 interval. Neither the credibility interval nor the confidence interval include zero, which indicates that the observed relationship is consistently positive.

Table 12

Loyalty-Satisfaction Moderator Analysis: B2B

Measure	B2B
Sample Size	396
Number of correlations	3
Observed Correlation (r)	0.7104
Observed SD	0.1297
90% Credibility Interval	0.5121<0.7104<0.9087
% Variance attributable to SE	11.13%
SD residual	0.1223
Corrected Correlation (r)	0.7104
SD of Corrected r	0.1209
95% Confidence Interval	0.4734<0.7104<0.9474

Meta-Analysis: Repurchase-Satisfaction

The results of the meta-analysis for repurchase and satisfaction are displayed in the Table 13. The total sample size across the collected studies was 13,098 with 11 reported or converted correlations. The mean correlation between repurchase and

satisfaction was 0.5616. The percent of the observed variance attributed to the sampling

error was 0.32, which indicated the presence of moderator variables.

The 95% confidence and the 90% credibility intervals for the repurchase-

satisfaction relationship did include zero. The finding of a statistical significance at the

95% confidence level indicated that there is a 5% chance that no relationship between the

repurchase and satisfaction exists. A small sample size of 11 correlations resulted in a

large standard deviation, which makes the confidence interval so wide, it includes zero.

No negative correlations were observed in the raw data. Therefore, it is reasonable to

assume that any relationship that exists is positive.

The moderator analyses were conducted to further clarify the strength of the

researched repurchase-satisfaction relationship.

Table 13

Repurchase-Satisfaction Meta-Analysis

Measure	Output
Sample Size	13,098
Number of Correlations	11
Observed Correlation (r)	0.5616
Observed SD	0.3485
90% Credibility Interval	-0.0024<0.5616<1.1256
% Variance attributable to SE	0.32%
SD residual	0.3479
Corrected Correlation (r)	0.5616
SD of Corrected r	0.3439
95% Confidence Interval	-0.1124<0.5616<1.2356

Moderator Analyses: Repurchase-Satisfaction

Moderator analyses were conducted on two factors: the geographic area of the collected sample (North America and Europe); and the category (product and service). There were no samples from other regions. The business setting factor (B2B and B2C) was not examined because all collected studies were only conducted in the B2C setting.

Moderator analyses for the geographic area factor are presented in Table 14. The total sample sizes across the collected empirical studies were 2,115 with 3 reported or converted correlations for North America and 5,917 with 7 reported or converted correlations for Europe. Mean correlations for repurchase and satisfaction were 0.1083 for North America and 0.3971 for Europe. Sampling errors accounted for 11.26 and 2.13% of the observed variance accordingly.

The 95% confidence and 90% credibility intervals for the repurchase-satisfaction relationship for the North America factor did include zero. The findings of a statistical significance at the 95% confidence level indicated that there is a 5% chance that no relationship between the repurchase and satisfaction researched constructs exists for the North America factor. A small sample size of only three correlations resulted in a large standard deviation, which makes the confidence interval so wide that it includes zero. No negative correlations were observed in the raw data. Therefore, it is reasonable to assume that any relationship that exists is positive.

Neither the credibility interval nor the confidence interval for Europe include zero, which indicates that the observed relationship is consistently positive. The findings of a statistical significance at the 95% confidence level indicate that repurchase and satisfaction correlations for Europe fall within a 0.02-0.78 interval.

Table 14

Repurchase-Satisfaction Moderator Analyses: Geographic Area

Measure	North America	Europe
Sample Size	2,115	5,917
Number of correlations	3	7
Observed Correlation (r)	0.1083	0.3971
Observed SD	0.1110	0.1987
90% Credibility Interval	-0.0613<0.1083<0.2779	0.1357<0.3971<0.6901
% Variance attributable to SE	11.26%	2.13%
SD residual	0.1046	0.1966
Corrected Correlation (r)	0.1083	0.3971
SD of Corrected r	0.1034	0.1943
95% Confidence Interval	-0.0944<0.1083<0.3110	0.0163<0.3971<0.7779

The moderator analyses for the category (product and service) factor are presented in Table 15. The total sample sizes across the collected empirical studies were 4,940 with 6 reported or converted correlations for the product category, and 3,092 with 4 reported or converted correlations for the service category. Most studies, which fell into the product category, were conducted in the auto industry. Mean correlations between repurchase and satisfaction are 0.3365 for the product category, which consist mostly of the auto industry samples, and 0.2965 for the service category. This is not statistically significant. Sampling errors account for 3.47% and 1.33% of the observed variance accordingly.

The findings of a statistical significance at the 95% confidence level indicated that repurchase and satisfaction correlations for the product category fall within a 0.02-0.65 interval. Neither the credibility interval nor the confidence interval for the product moderator include zero, which indicates that the observed relationship is consistently positive. However, the confidence and credibility intervals for the service moderator did

include zero. In part, these results might be due to the small number of samples which makes the analysis somewhat unstable.

The findings of a statistical significance at the 95% confidence level indicated that there is a 5% chance that no relationship between the repurchase and satisfaction researched constructs exists for the service category. A small sample size of only 4 correlations resulted in a large standard deviation, which makes the confidence interval so wide that it includes zero. No negative correlations were observed in the raw data; therefore, any relationship that exists is positive.

Table 15

Repurchase-Satisfaction Moderator Analyses: The Category

Measure	Product	Service
Sample Size	4,940	3,092
Number of correlations	6	4
Observed Correlation (r)	0.3365	0.2965
Observed SD	0.0275	0.2846
90% Credibility Interval	0.0721<0.3365<0.6009	-0.1619<0.2965<0.7549
% Variance attributable to SE	3.47%	1.33%
SD residual	0.1630	0.2827
Corrected Correlation (r)	0.3365	0.2965
SD of Corrected r	0.1612	0.2795
95% Confidence Interval	0.0205<0.3365<0.6525	-0.2513<0.2965<0.8443

Meta-Analysis: Repurchase Intent-Satisfaction

The results of the analysis for repurchase intent and satisfaction are displayed in Table 16. The total calculated sample size across the collected empirical studies was 1,640,056 with 59 reported or converted correlations. The mean correlation between repurchase intent and satisfaction was 0.6314, which is significantly strong. The percent

of the observed variance attributable to the sampling error was 0.67, which indicates that

there are other factors moderating the observed results.

The repurchase intent-satisfaction relationship is consistently positive as indicated

by the credibility interval and the confidence interval, which did not include zero. The

findings of a statistical significance at the 95% confidence level indicated that repurchase

intent and satisfaction correlations fall within a 0.55-0.72 interval. The satisfaction

construct is clearly a strong, positive indicator of repurchase intent. The moderator

analyses were conducted to further investigate this relationship.

Table 16

Repurchase Intent-Satisfaction Meta-Analysis

Measure	Output
Sample Size	1,640,056
Number of Correlations	59
Observed Correlation (r)	0.6314
Observed SD	0.0439
90% Credibility Interval	0.5604<0.6314<0.7024
% Variance attributable to SE	0.67%
SD r	0.0438
Corrected Correlation (r)	0.6314
SD of Corrected r	0.0433
95% Confidence Interval	0.5465<0.6314<0.7163

Moderator Analyses: Repurchase Intent-Satisfaction

Moderator analyses were conducted on three factors: the geographic area of the

collected sample (North America and Asia); the category (product and service); and the

business setting (B2B and B2C). No samples from European counties were presented.

The moderator analysis for the geographic area is presented in Table 17. The total sample sizes across the collected empirical studies were 1,610,189 with 40 reported or converted correlations for North America, and 6,848 with 16 reported or converted correlations for Asia. Mean correlations between repurchase and satisfaction were 0.6345 for North America, and 0.5100 for Asia, which display strong relationships. Sampling errors accounted for 0.72% of the observed variance for North American and 4.46% for Asia.

The findings of a statistical significance at the 95% confidence level indicated that repurchase intent and satisfaction correlations for North America fall within a 0.57-0.70 interval, and within a 0.19-0.83 interval for Asia. Neither the credibility interval nor the confidence interval include zero for both geographic areas, which indicates that the observed relationship is consistently positive.

Table 17

Repurchase Intent-Satisfaction Moderator Analyses: Geographic Area

Measure	North America	Asia
Sample Size	1,610,189	6,848
Number of correlations	40	16
Observed Correlation (r)	0.6345	0.5100
Observed SD	0.0352	0.1695
90% Credibility Interval	0.5776<0.6345<0.6914	0.2414<0.5100<0.7786
% Variance attributable to SE	0.72%	4.46%
SD residual	0.0351	0.1657
Corrected Correlation (r)	0.6345	0.5100
SD of Corrected r	0.03467	0.1638
95% Confidence Interval	0.5665<0.6345<0.7025	0.1890<0.5100<0.8310

Moderator analyses for the category factor (product and service) are presented in Table 18. The total sample sizes across the collected empirical studies were 1,607,438 with 29 reported or converted correlations for the product category, and 32,618 with 30 reported or converted correlations for the service category. Most studies in the product category were conducted in the auto industry. Mean correlations between repurchase intent and satisfaction were 0.6345 for the product category (the auto industry) and 0.4756 for the service category, which indicate strong relationship. Sampling errors accounted for 0.56% of the observed variance for the product category and 3.57% for the service category.

The findings of a statistical significance at the 95% confidence level indicated that repurchase intent and satisfaction correlations for the product category fall within a 0.57-0.70 interval, and within a 0.24-0.71 interval for the service category. Neither the credibility interval nor the confidence interval include zero, which indicates that the observed relationship is consistently positive.

Table 18

Repurchase Intent-Satisfaction Moderator Analyses: The Category

Measure	Product	Service
Sample Size	1,607,438	32,618
Number of correlations	29	30
Observed Correlation (r)	0.6345	0.4756
Observed SD	0.0340	0.1243
90% Credibility Interval	0.5768<0.6345<0.6922	0.2777<0.4756<0.6735
% Variance attributable to SE	0.56%	3.57%
SD residual	0.0339	0.1221
Corrected Correlation (r)	0.6345	0.4756
SD of Corrected r	0.03518	0.1207
95% Confidence Interval	0.5655<0.6345<0.7035	0.2390<0.4756<0.7122

Moderator analyses for the business setting factor (B2B and B2C) are presented in Table 19. The total sample sizes across the collected empirical studies were 3,434 with 13 reported or converted correlations for the B2B setting, and 1,636,989 with 46 reported or converted correlations for the B2C setting. Mean correlations between loyalty and satisfaction were 0.3958 for the B2B setting and 0.6319 for the B2C setting. It appears that strong relationship between repurchase intent and satisfaction exists in the B2C setting and weak in the B2B setting. Sampling errors accounted for 5.73% of the observed variance for the B2B setting and 0.59% for the B2C setting.

The confidence interval for the repurchase intent and satisfaction relationship for the B2B moderator did include zero. The findings of a statistical significance at the 95% confidence level indicated that there is a 5% chance that no relationship between the repurchase internet and satisfaction exists within the B2B setting. A small sample size of 13 correlations resulted in a large standard deviation, which makes the confidence interval so wide that it includes zero. No negative correlations were observed in the raw data. Therefore, it is reasonable to assume that any relationship that exists is positive.

Neither the credibility interval nor the confidence interval for the B2C setting include zero, which indicates that the observed relationship is consistently positive. The findings of a statistical significance at the 95% confidence level indicated that repurchase intent and satisfaction correlations in the B2C setting fall within a 0.55-0.71 interval.

Table 19

Repurchase Intent-Satisfaction Moderator Analyses: The Business Setting

Measure	B2B	B2C
Sample Size	3,434	1,636,989
Number of correlations	13	46
Observed Correlation (r)	0.3958	0.6319
Observed SD	0.2171	0.0419
90% Credibility Interval	0.0542<0.3958<0.7374	0.5648<0.6319<0.6990
% Variance attributable to SE	5.73%	0.59%
SD residual	0.2108	0.0414
Corrected Correlation (r)	0.3958	0.6319
SD of Corrected r	0.2083	0.0409
95% Confidence Interval	-0.0125<0.3958<0.8041	0.5517<0.6319<0.7121

Meta-Analysis: Loyalty-Repurchase

The results of the conducted Loyalty-Repurchase/Repurchase Intent meta-analysis are displayed in Table 20. The total sample size across the collected empirical studies was 2,172 with 7 reported correlations. The mean correlation between loyalty and satisfaction was 0.7058. The sampling error accounted for a 6.61% of the observed variance. Neither the credibility interval nor the confidence interval include zero, which indicates that the observed relationship is consistently positive. The findings of a statistical significance at the 95% confidence level indicated that loyalty and repurchase/ repurchase intent correlations fall within a 0.50-0.91 interval.

No moderator analysis was conducted due to the limited number of published empirical research investigating loyalty and repurchase relationship.

Table 20

Loyalty-Repurchase/Repurchase Intent Meta-Analysis

Measure	Output
Sample Size	2,172
Number of correlations	7
Observed Correlation (r)	0.7058
Observed SD	0.1061
90% Credibility Interval	0.5319<0.7058<0.8799
% Variance attributable to SE	6.61%
SD residual	0.1089
Corrected Correlation (r)	0.7058
SD of Corrected r	0.1061
95% Confidence Interval	0.4979<0.7058<0.9139

Discussion of the Meta-Analysis Results

The purpose of the meta-analysis was to provide a quantitative review of loyalty-repurchase-satisfaction constructs to identify their strength of relationships and the direction. Additionally, the moderator analyses were conducted to further investigate the research constructs. The summary of the observed correlations for the researched constructs is presented in Table 21.

Table 21

The Observed Correlations

Meta-			Moderator Analyses				
Analysis	N. America	Europe	Other	Product	Service	B2B	B2C
Loyalty-Satisfaction							
0.5431	0.5127	0.4129	0.5985	0.4703	0.5477	0.7104	0.5431[2]
Repurchase-Satisfaction							
0.5616[1]	0.1083[1]	0.3971	n/a	0.3365	0.2965[1]	n/a	0.5616
Repurchase Intent-Satisfaction							
0.6314	0.6345	n/a	0.51	0.6345	0.4756	0.3958[1]	0.6319
Loyalty-Repurchase/RepuInt							
0.7058							

[1] Confidence intervals include zero
[2] The approximation

Loyalty and satisfaction indicate strong positive relationships for the conducted meta-analysis and six moderator analyses. The majority of the sample was collected in the B2C setting (83 versus 3); therefore, the B2C moderator is assumed to have the same observed correlation as a meta-analysis. The strongest relationship between loyalty and satisfaction appears to be within B2B setting (0.71), followed by the "Other" factor (0.60). The obtained results confirmed the literature review findings that satisfied consumers do display loyalty. This is one of the important points for managers to know in the business world.

The repurchase and satisfaction constructs display a complicated relationship. The correlation coefficient for the overall meta-analysis is 0.56. However, the 95% confidence interval and 90% credibility interval include zero, indicating that there is a small likelihood that those constructs are not related at all. Small sample size collected

for meta-analysis (11) resulted in a large standard deviation, which makes the confidence intervals wide enough to include zero. The moderator analyses for North-America and the Service factor displayed that the 95% confidence interval also included zero. The collected sample sizes were 3 and 4 accordingly, which resulted in large confidence intervals. The obtained results for the repurchase-satisfaction relationship confirmed Szymanski and Henard (2001) observation about the failure of satisfaction to explain repurchase behavior. Satisfaction is a multifaceted construct; therefore, some aspects of satisfaction are more predictive of repurchase than others.

Repurchase intent and satisfaction display strong positive relationships for the conducted meta-analysis and moderator analyses with the exception of the B2B factor, which included zero in the 95% confidence interval with the sample size of 13. Generally, satisfied customers do show a strong tendency for repurchase intent. This is another important point for managers to know. However, in the B2B setting, other variables can influence repurchase intent in addition to the satisfaction construct.

Loyalty and repurchase/repurchase intent indicate the strongest positive relationship (0.71) among all conducted meta-analysis and moderator analyses. The obtained results confirmed the literature review that loyalty and repurchase/repurchase intent constructs are positively linked.

Phase 2: The Field Study

Description of Responses

A total of 576 paper-and-pencil surveys were distributed to undergraduate and graduate students at three colleges (Business, Aviation, and Arts and Sciences) at a private university. The response rate for the surveys conducted during the class time was 98%, which resulted in 564 collected surveys. The obtained data was entered into the database using the SPSS software.

The significance of the analysis depends on the accuracy of the collected data sample. Hair et al. (1998) stated that "missing data can have a profound effect on calculating the input data matrix, and its ability to be used in the estimation process" (p. 603). Therefore, the incomplete surveys were disregarded in order to avoid bias, which might lead to inaccurate conclusions. This resulted in the final sample of 499. The demographic distribution of the collected sample was the following:

1. Gender: 408 (82%) male and 91(18%) female.

2. Income: 460 (92%) respondents were in the $0-24,999 income category; 19 (3.8%) respondents were in the $25,000-49,999 category; 8 (1.6%) respondents were in the $50,000-74,999 category; 2 (less than 1%) respondents were in the $75,000-99,999 category; and 10 (2%) respondents indicated the above $100,000 level of income.

3. Occupation: 369 (74%) respondents indicated the full-time student status, while 130 (26%) respondents additionally indicated different types of jobs held inside and outside of the campus.

4. Age: 461 (92%) respondents were between 18 and 24 years old; 33 (6.6%) between 25 and 34 years old; and 5 (1.4%) respondents were older than 34 years.

5. Ethnicity: 3 (less than 1%) respondents indicated the American Indian origin; 46 (9.2%) indicated Asian, Asian American or Pacific Islander; 54 (10.8%) indicated Black or African American; 324 (65%) indicated White (non-Hispanic); 40 (8%) indicated Hispanic or Latino; and 32 (6.4%) respondents indicated the "Other" category.

Brands of jeans some of respondents feel loyal to include Abercrombie, Diesel, Armani Exchange, Aeropostale, American Eagle, Arizona Jeans, Express, GAP, Gloria Vanderbilt, Guess, Levi Straus, Levi's, Wrangler, Lucky Brand Jeans, Moda jeans, Rocawear, South Pole, Old Navy, Ecko, Enyce, Sean John, Silver Tab, True Religion, Rock & Republic, Antik Denim, Diesel, The Wet Seal, Dollhouse, Wal-Mart, JC Penny, and others.

Structural Equation Modeling

The proposed research framework (Loyalty dimensions-Repurchase/Repurchase Intent-Satisfaction) consists of multiple relationships between the research constructs. That is why the structural equation modeling (SEM) technique was employed in this phase of the study. SEM allows the evaluation of the entire research model by accommodating multiple interrelated dependence relationships (Hair et. al, 1998), which brings a higher-level perspective to the analysis (Kline, 2005).

SEM is a confirmatory rather than exploratory analysis, which is based on theory testing rather than theory development. SEM can estimate many relationships at once.

This technique differs from multiple regression, which can only estimate a single relationship. SEM allows the modeling of complex relationships that are not possible with any of the other multivariate techniques (Hair et.al, 1995). "The term structural equation modeling (SEM) does not designate a single statistical technique, but instead refers to a family of related procedures" (Kline, 2005, p. 9). The basic statistic in SEM is the covariance, which is why other terms associated with SEM are covariance structure analysis, covariance structure modeling, and analysis of covariance structure (Kline, 2005).

Hair et al. (1998) identified seven stages of SEM:

1. Develop a theoretically based model
2. Construct a path diagram of causal relationships
3. Convert the path diagram into a set of structural and measurement models
4. Choose the input matrix type
5. Assess the identification of the structural model
6. Evaluate goodness-of-fit criteria
7. Interpret and modify the model

By default, the estimation of parameters is based on the maximum likelihood method. This method assumes that the sample is very large; the distribution of the observed variables is multivariate normal; the hypothesized model is valid; and the scale of the observed variables is continuous (Byrne, 2001).

SEM consists of two models: measurement and structural. First, the measurement model was addressed. The measurement model is similar to factor analysis. This model specifies the indicators for each construct, and assesses the reliability of each construct to estimate the causal relationships (Hair et al., 1998).

The measurement model indicated the presence of cross loadings. It appears that indicators loaded on different factors instead of a single factor, meaning that observations

were not representing a single, underlying construct. To correct this issue, factor scores were used. A factor score is a composite measure that is created to capture the common variance in a construct. The factor weights are used in conjunction with the original values to calculate each observation's score (Hair et al., 1998). Factor scores are standardized to have a mean of 0 and a standard deviation of 1. Six factor scores were calculated and labeled as "Commit", "Trust", "Involve", "WOM", "Satis", and "RepInt".

The structural model, as a test of the research hypotheses, was addressed next. The structural model is the set of one or more dependence relationships that link the hypothesized model's constructs (Hair et al., 1998). Based on the literature review, the path diagram presents the relationships between researched constructs.

Initial Structural Model

The theoretical model of loyalty dimensions-repurchase/repurchase intent-satisfaction was presented in Chapter 2 (see Figure 4). The AMOS 7 program, which stands for Analysis of Moment Structures, was used to construct a path diagram representing the hypothesized relationships between the researched variables. The initial structural equation model is presented in Figure 6.
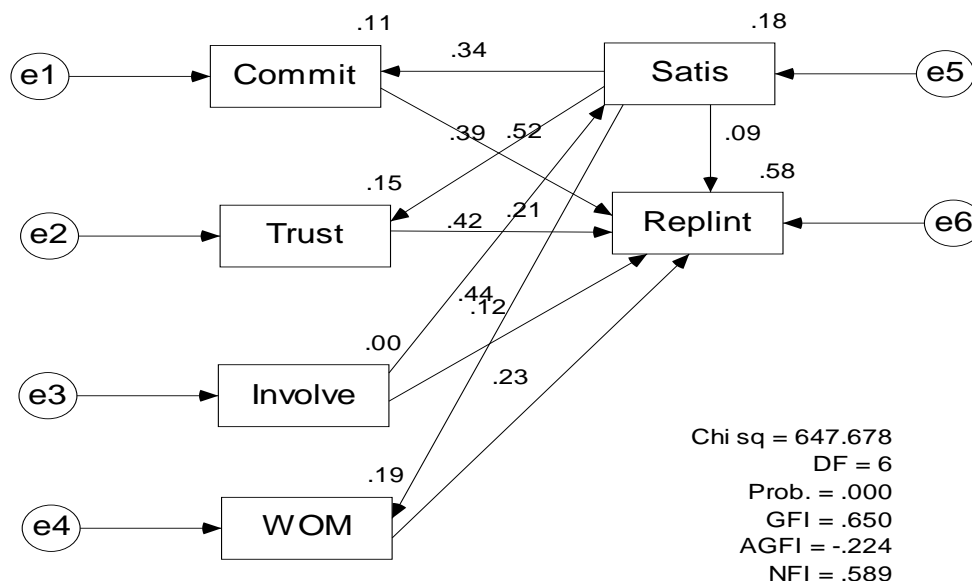
Figure 6. Initial structural equation model.

Model assessment determines to what extent the hypothesized model "fits" the

sample of data (Byrne, 2001). To assess the fit of the model, the following criteria were

used (Hair et al., 1998):

1. Chi square and degrees of freedom (df) values should be close. The chi square to df ratio should be less or equal 2.
2. A statistical significant level at probability greater than 0.05 should be achieved for the overall model fit.
3. Fit indices, which assess the discrepancy between the model and the sample covariance data, should be above the cutoff points.

Fit indices compared the estimated model on how well it fits the sample data. The

Goodness of Fit Index (GFI) is a degree to which the actual or observed input matrix is

predicted by the estimated model. GFI is based on a ratio of the sum of the squared

differences between the observed and reproduced matrices to the observed variances,

while Adjusted Goodness of Fit Index (AGFI) adjusts for the number of degrees of

freedom of a model relative to the number of variables (Hair et al., 1998). Hair et al.

(1998) indicated that the acceptable fit standards for GFI and AGFI should be greater

than 0.9, with values close to 1.00 indicating good fit. GFI and AGFI are classified as

absolute indices of fit because they compare the hypothesized model with no model at all.

Another index, Normed Fit Index (NFI), which under-fits at small sample sizes, is

recommended to be above 0.95.

Table 22 displays the calculated statistics for the initial model. All measures

indicated that calculated statistics (p-value, GFI, AGFI, and NFI) are all below the cutoff

points as recommended, indicating that the proposed model does not have good fit. The

chi square is large at 647.678 and differed greatly from the degrees of freedom (6), also

indicating that this is not a good fitting model.

Table 22

The Initial Model Summary

Statistic	Suggested by Hair et al. (1998)	Calculated
Chi Square	n/a	647.678
Degrees of Freedom	n/a	6
Significance (p)	>0.05	0.000
GFI	$\geq$0.90	0.650
AGFI	$\geq$0.90	0.224
NFI	$\geq$0.95	0.589

Final Structural Model

Hair et al. (1998) suggested using the seventh stage of the SEM process to

interpret and modify the model. The results of the initial structural model, including the

normalized residuals and the modification indices, were examined in order to maximize

the model's goodness-of-fit. Hair et al. (1998) proposed looking at the normalized

residuals that exceed the threshold value of 2.58 and the modification indices that exceed 3.84 values. However, all the model modifications should have a theoretical support.

The examination of the model resulted in constructing additional paths for some of the predictor variables, representing loyalty dimensions. All proposed relationships were supported from the literature review. Loyalty is a multidimensional construct consisting of behavioral, attitudinal, and composite components discussed in Chapter II. The improved structural model is presented in Figure 7.
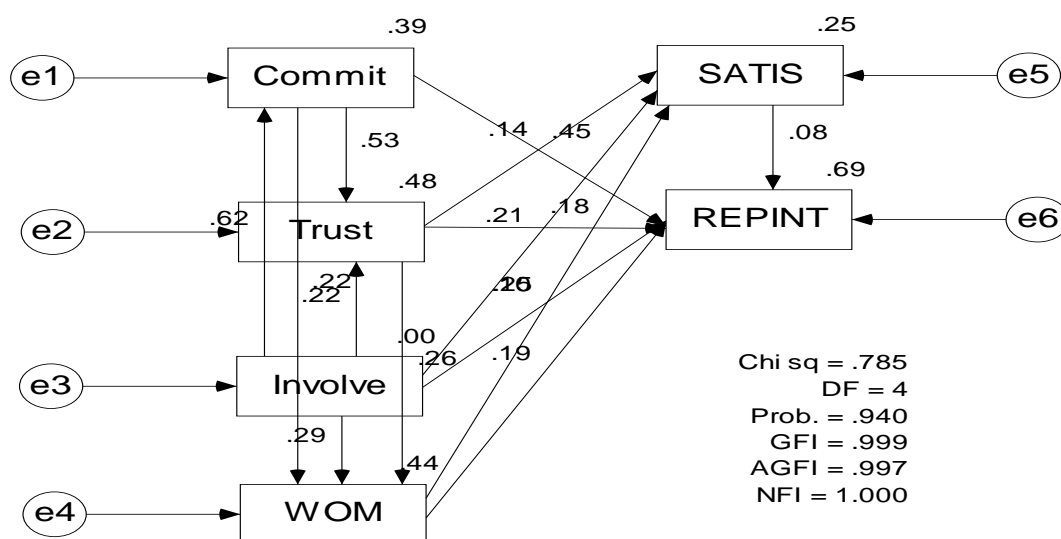
Figure 7. Final structural equation model.

The final structural model consisted of 12 variables: six observed or endogenous variables labeled as "Commit", "Trust", "Involve", "WOM", "SATIS", and "REPINT"; and six unobserved or exogenous variables represented by error terms (e1, e2, e3, e4, e5, and e6). The parameter summary indicated 20 regression weights, 6 of which are fixed

and 14 that are estimated, and 6 variances. In total, the structural equation model

contained 26 parameters, 17 of which are to be estimated (see Table 23).

Table 23

Parameter Summary

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	6	0	3	0	0	9
Labeled	0	0	0	0	0	0
Unlabeled	14	0	3	0	0	17
Total	20	0	6	0	0	26

Hair et al. (1998) recommends the p-value above 0.05 indicating a good model fit.

Table 24 displays the calculated statistics for the improved model. The probability level

at 0.940 indicates that departure of the data from the model is not significant at the .05

level. A low chi square (0.785) value along with the significance level above 0.05

indicates that the model fits the observed covariances well (Hair et al., 1998). The

calculated ratio of chi-square to degrees of freedom for the hypothesized model is below

1 (0.19625). All measures indicate that calculated statistics (p-value, GFI, AGFI, and

NFI) are all above the cutoff points as recommended, indicating that the proposed model

has a good fit.

Table 24

The Final Model Summary

Statistic	Suggested by Hair et al. (1998)	Calculated
Chi Square	n/a	0.785
Degrees of Freedom	n/a	4
Significance (p)	>0.05	0.940
GFI	≥0.90	0.999
AGFI	≥0.90	0.997
NFI	≥0.95	1.000

The AMOS output for hypothesized model parameter estimates is presented in Table 25. The maximum likelihood estimates of the regression weights are the estimated path coefficients. The unstandardized estimate of the direct effect of Involvement to Commitment has a higher value of 0.624, meaning that a 1-point increase in Involvement predicts a 0.624 increase in Commitment. When Involvement goes up by 1 standard deviation, Commitment goes up by 0.624 standard deviations. The standard error for this direct effect is 0.035.

In order to determine if a coefficient is statistically significant, the estimate is divided by its standard error and yields the critical ratio (CR), which can be interpreted as a t-value. Hair et al. (1998) stated that a t-value of 1.96 translates to a 0.05 significance level, while a t-value of 2.58 translates to a 0.01 significance level. Therefore, any number of a t-value above 1.96 is considered to be significant in the model (Hair et al., 1998). The obtained statistics indicated that all path results appeared to be significant (see Table 25).

Table 25

Final Structural Model Path Results

Path			Estimate	S.E.	C.R.	P
Commit	<---	Involve	.624	.035	17.845	***
Trust	<---	Commit	.528	.042	12.722	***
Trust	<---	Involve	.223	.041	5.365	***
WOM	<---	Involve	.289	.044	6.524	***
WOM	<---	Trust	.256	.046	5.506	***
WOM	<---	Commit	.222	.050	4.475	***
SATIS	<---	Trust	.136	.050	2.722	.006
SATIS	<---	WOM	.248	.051	4.890	***
SATIS	<---	Involve	.205	.050	4.092	***
REPINT	<---	WOM	.195	.034	5.723	***
REPINT	<---	Trust	.178	.036	4.962	***
REPINT	<---	Involve	.100	.035	2.885	.004
REPINT	<---	Commit	.449	.038	11.937	***
REPINT	<---	SATIS	.079	.029	2.728	.006

*** $p < 0.001$ level (two-tailed)

Table 26 presents the standardized regression weights or factor loadings. Standardized regression weighs indicate the relative contribution of each predictor variable to each outcome variable. The standardized regression weights are coefficients with values between -1 and 1. The AMOS output indicates that Involvement has a significant influence on Commitment (0.625), Commitment has a significant influence on Trust (0.528), and Commitment has a significant influence on Repurchase Intent (0.449). However, the rest of the loyalty dimensions, repurchase intent and satisfaction variables do not display strong influences.

Table 26

Standardized Regression Weights (Factor Loadings)

Path			Estimate
Commit	<---	Involve	.625
Trust	<---	Commit	.528
Trust	<---	Involve	.223
WOM	<---	Involve	.289
WOM	<---	Trust	.256
WOM	<---	Commit	.222
SATIS	<---	Trust	.136
SATIS	<---	WOM	.248
SATIS	<---	Involve	.206
REPINT	<---	WOM	.195
REPINT	<---	Trust	.178
REPINT	<---	Involve	.100
REPINT	<---	Commit	.449
REPINT	<---	SATIS	.079

The squared multiple correlations indicate the amount of variance in each variable accounted for by its predictors. It is the sum of all the direct and indirect influences (see Table 27). It is estimated that the predictors of the Repurchase Intent construct explain approximately 69% of its variance. In other words, the error variance of Repurchase Intent is approximately 31% of the variance of the Repurchase Intent construct itself. The predictors of the Satisfaction construct explain only approximately 25% of its variance. The predictors of loyalty dimensions display the following: the predictors of Commitment explain 39% of its variance; the predictors of Trust explain approximately 48% of its variance; and the predictors of Word of Mouth explain approximately 44%.

Table 27

Squared Multiple Correlations

Constructs	Estimate
Commit	.390
Trust	.476
WOM	.436
SATIS	.249
REPINT	.688

Three Sub-Sets: Parameters Estimate

The Maximum Likelihood Estimation (MLE) method was applied in SEM. Hair

et al. (1998) indicated that the minimum sample size should be between 100 and 150.

However, with the increase of the sample size, the MLE method increases its sensitivity

to detect differences among the data. With the large sample of 499 respondents, the MLE

method becomes too sensitive.

In order to re-test the hypothesized relationships, the total sample size of 499 was

further divided into two sub-sets first: the first 50% of respondents (n1=250) and the last

50% of respondents (n2=249). Next, the middle 50% of the total sample respondents

(n3=250) was selected to form a third sub-set.

The measurement model summary for the total sample and three sub-sets is

presented in Table 28. Generally, with a smaller sample the test should have less

statistical power and higher probability. However, the obtained results for the three sub-

sets demonstrated the increase in chi squares and the decrease in their probabilities. The

degrees of freedom stay the same (4), and GFI, AGFI, and NFI indices also have

approximately the same values, which are all above the suggested cutoff points.

Table 28

Measurement Model Summary: Total Sample and Three Sub-Sets

Statistic	N=499	n1=250	n2=249	n3=250
Chi Square	0.785	4.557	10.515	2.816
Degrees of Freedom	4	4	4	4
Probability	0.940	0.336	0.033	0.589
GFI	0.999	0.994	0.987	0.996
AGFI	0.997	0.967	0.929	0.980
NFI	1.000	0.994	0.987	0.996

The standardized regression weights for each sub-set are presented in Tables 29, 30, and 31 accordingly. Although the same model was tested, the results of the standardized regression weights for each sub-set illustrate that different coefficients appear to be statistically significant, while other coefficients appear to be not significant.

Table 29

The First Sub-Set Path Results

Path			Estimate	S.E.	C.R.	P
Commit	<---	Involve	.636	.049	12.863	***
Trust	<---	Commit	.559	.059	9.517	***
Trust	<---	Involve	.175	.059	2.960	.003
WOM	<---	Involve	.386	.064	6.068	***
WOM	<---	Trust	.247	.067	3.688	***
WOM	<---	Commit	.172	.073	2.373	.018
SATIS	<---	Trust	.048	.071	.677	.499
SATIS	<---	WOM	.265	.073	3.614	***
SATIS	<---	Involve	.259	.075	3.473	***
REPLINT	<---	WOM	.192	.046	4.184	***
REPLINT	<---	Trust	.159	.049	3.277	.001
REPLINT	<---	Involve	.142	.049	2.894	.004
REPLINT	<---	Commit	.456	.052	8.810	***
REPLINT	<---	SATIS	.053	.038	1.388	.165

*** $p < 0.001$ level (two-tailed)

Table 30

The Last Sub-Set Path Results

Path			Estimate	S.E.	C.R.	P
Commit	<---	Involve	.611	.050	12.325	***
Trust	<---	Commit	.488	.059	8.293	***
Trust	<---	Involve	.269	.058	4.619	***
WOM	<---	Involve	.187	.061	3.055	.002
WOM	<---	Trust	.286	.064	4.485	***
WOM	<---	Commit	.271	.067	4.049	***
SATIS	<---	Trust	.259	.070	3.687	***
SATIS	<---	Involve	.131	.067	1.964	.049
SATIS	<---	WOM	.218	.070	3.128	.002
REPLINT	<---	WOM	.197	.051	3.860	***
REPLINT	<---	Trust	.196	.054	3.667	***
REPLINT	<---	Involve	.062	.049	1.253	.210
REPLINT	<---	Commit	.444	.054	8.169	***
REPLINT	<---	SATIS	.099	.044	2.244	.025

*** p<0.001 level (two-tailed)

Table 31

The Middle Sub-Set Path Results

Path			Estimate	S.E.	C.R.	P
Commit	<---	Involve	.536	.049	10.847	***
Trust	<---	Commit	.563	.059	9.580	***
Trust	<---	Involve	.242	.056	4.345	***
WOM	<---	Involve	.306	.060	5.121	***
WOM	<---	Trust	.257	.066	3.913	***
WOM	<---	Commit	.172	.071	2.415	.016
SATIS	<---	Trust	.123	.068	1.821	.069
SATIS	<---	Involve	.240	.068	3.512	***
SATIS	<---	WOM	.247	.071	3.501	***
REPLINT	<---	WOM	.193	.048	4.031	***
REPLINT	<---	Trust	.155	.050	3.082	.002
REPLINT	<---	Involve	.070	.047	1.482	.138
REPLINT	<---	Commit	.483	.053	9.080	***
REPLINT	<---	SATIS	.077	.042	1.859	.063

*** p<0.001 level (two-tailed)

The inter-relationships of the researched variables were compared between the total sample and three new sub-sets. The results indicated that the strength of the researched relationships is approximately the same for all four sets (see Table 32). The close similarity in the obtained results from three sub-sets supports the overall results of the hypotheses test for the total sample of 499, because the results could be replicated.

Table 32

Standardized Regression Weights: Total Sample and Three Sub-Sets

Path			N=499 Estimate	n1=250 Estimate	n2=249 Estimate	n3=250 Estimate
Commit	<---	Involve	0.625	0.636	0.616	0.566
Trust	<---	Commit	0.528	0.559	0.486	0.530
Trust	<---	Involve	0.223	0.175	0.271	0.240
WOM	<---	Involve	0.289	0.386	0.193	0.315
WOM	<---	Trust	0.256	0.247	0.294	0.266
WOM	<---	Commit	0.222	0.172	0.277	0.167
SATIS	<---	Trust	0.136	0.048	0.265	0.126
SATIS	<---	Involve	0.206	0.265	0.135	0.243
SATIS	<---	WOM	0.248	0.259	0.218	0.244
REPLINT	<---	WOM	0.195	0.192	0.191	0.196
REPLINT	<---	Trust	0.178	0.159	0.196	0.163
REPLINT	<---	Involve	0.100	0.142	0.062	0.074
REPLINT	<---	Commit	0.449	0.456	0.441	0.478
REPLINT	<---	SATIS	0.079	0.053	0.096	0.080

Discussion of the Field Study Results

The hypothesized relationships Loyalty-Repurchase/Repurchase Intent-Satisfaction and their paths are presented in Table 33. All of the proposed hypotheses were supported with the exception of H5 (see Table 34). The satisfaction-commitment

path (H5) was removed in the final structural equation model in order to improve the

model fit.

Table 33

The Hypothesized Relationships

Proposed Hypotheses	Path		
Loyalty Dimensions-Repurchase/Repurchase Intent			
H1	Commitment has a strong positive relationship with repurchase or repurchase intent	REPLINT	<---	Commit
H2	Trust has a strong positive relationship with repurchase or repurchase intent	REPLINT	<---	Trust
H3	Involvement has a weak positive relationship with repurchase or repurchase intent	REPLINT	<---	Involve
H4	Word of Mouth has a weak positive relationship with repurchase or repurchase intent	REPLINT	<---	WOM
Satisfaction-Loyalty Dimensions			
H5	Satisfaction has a strong positive relationship with commitment	N/A		
H6	Satisfaction has a strong positive relationship with trust	SATIS	<---	Trust
H7	Involvement has a weak positive relationship with satisfaction	SATIS	<---	Involve
H8	Satisfaction has a strong positive relationship with word of mouth	SATIS	<---	WOM
Satisfaction-Repurchase/Repurchase Intent			
H9	Satisfaction has a strong positive relationship with repurchase or repurchase intent	REPLINT	<---	SATIS

Table 34

Hypotheses Testing (H1-H9) Under the Proposed Model

				Unstand. Estimates	Stand. Error	Stand. Estimates	t-value	Result
Loyalty Dimensions-Repurchase/Repurchase Intent								
H1	REPLINT	<---	Commit	0.449	0.038	0.449	11.937	Supported
H2	REPLINT	<---	Trust	0.178	0.036	0.178	4.962	Supported
H3	REPLINT	<---	Involve	0.100	0.035	0.100	2.885	Supported
H4	REPLINT	<---	WOM	0.195	0.034	0.195	5.723	Supported
Satisfaction-Loyalty Dimensions:								
H5		N/A						
H6	SATIS	<---	Trust	0.136	0.05	0.136	2.722	Supported
H7	SATIS	<---	Involve	0.205	0.05	0.206	4.092	Supported
H8	SATIS	<---	WOM	0.248	0.051	0.248	4.890	Supported
Satisfaction-Repurchase/Repurchase Intent:								
H9	REPLINT	<---	SATIS	0.079	0.029	0.079	2.728	Supported

Loyalty Dimensions-Repurchase/Repurchase Intent

H1 hypothesized that Commitment has a strong positive relationship with

Repurchase or Repurchase Intent. This hypothesis was supported with a t-value of 11.937

and a standard loading of 0.449. Therefore, a significant positive relationship between

Commitment and Repurchase Intent exists as suggested by the literature review discussed

in Chapter II.

H2 hypothesized that Trust has a strong positive relationship with Repurchase or

Repurchase Intent. This hypothesis was supported with a t-value of 4.962 and a standard

loading of 0.178. Although a positive relationship between Trust and Repurchase Intent

exists, statistically it appears not to be strong. This finding confirms the literature review

that positive relationship between Trust and Repurchase/Repurchase Intent exists. However, it did not support the theory that this relationship is strong.

H3 hypothesized that Involvement has a weak positive relationship with Repurchase or Repurchase Intent. This hypothesis was supported with a t-value of 2.885 and a standard loading of 0.100. A weak positive relationship between Involvement and Repurchase Intent exists as suggested by the literature review.

H4 hypothesized that Word of Mouth has a weak positive relationship with Repurchase or Repurchase Intent. This hypothesis was supported with a t-value of 5.723 and a standard loading of 0.195. A weak positive relationship between Word of Mouth and Repurchase Intent exists, which was confirmed by the literature review.

Satisfaction-Loyalty Dimensions

H5 hypothesized that Satisfaction has a strong positive relationship with Commitment. After the model modification, the Satisfaction-Commitment path was removed. Therefore, no statistical results are available for the proposed hypothesis.

H6 hypothesized that Satisfaction has a strong positive relationship with Trust. The path of the modified model was changed from Trust to Satisfaction. This hypothesis was supported with a t-value of 2.772 and a standard loading of 0.136. A positive relationship between Trust and Satisfaction exists; however, it is not statistically strong. The findings confirm the literature review that positive relationship between Trust and Satisfaction exists. However, it did not support the theory that this relationship is strong.

H7 hypothesized that Involvement has a weak positive relationship with Satisfaction. This hypothesis was supported with a t-value of 4.092 and a standard

loading of 0.206. A weak positive relationship between Involvement and Satisfaction exists as suggested by the literature review.

H8 hypothesized that Satisfaction has a strong positive relationship with Word of Mouth. The path of the modified model was changed from Word of Mouth to Satisfaction. This hypothesis was supported with a t-value of 4.890 and a standard loading of 0.248. A positive relationship between Word of Mouth and Satisfaction exists; however, it is not statistically strong. The findings confirm the literature review that a positive relationship between Satisfaction and WOM exists. However, it did not support the theory that this relationship is strong.

Satisfaction-Repurchase/Repurchase Intent

H9 hypothesized that Satisfaction has a strong positive relationship with Repurchase or Repurchase Intent. This hypothesis was supported with a t-value of 2.728 and a standard loading of 0.079. A positive relationship between Satisfaction and Repurchase/Repurchase Intent; however, it is not statistically strong. The findings confirm the literature review that positive relationship between Satisfaction and Repurchase or Repurchase Intent exists. However, it did not support the theory that this relationship is strong.

The SEM results indicate that additional two paths with significant positive relationships were found within the loyalty dimensions. Involvement has a strong positive relationship with Commitment (t-value of 17,845 and a standard loading of 0.625); and Commitment has a strong positive relationship with Trust (t-value of 12.722 and a standard loading of 0.528).

<u>Phase 3: Meta-Analysis and The Field Study</u>

The first phase of the study statistically identified the magnitude and the direction of the researched constructs using a meta-analysis technique by Hunter & Schmidt (1990). The second phase statistically identified relationships between the researched constructs: loyalty dimensions (commitment, trust, involvement, and word of mouth), repurchase/repurchase intent, and satisfaction for consumers of appeal products using a SEM technique.

The purpose of the third phase is to compare the meta-analysis results and the field study results.

Loyalty-Repurchase/Repurchase Intent

The results of meta-analysis suggest a strong positive relationship between researched constructs (0.7058). The field study results support the positive relationships between investigated loyalty dimensions (commitment, trust, involvement, and word of mouth) and repurchase/repurchase intent. However, while some loyalty dimensions (commitment) display strong relationship with repurchase/repurchase intent, other loyalty dimensions (trust, involvement, and WOM) do not display statistically strong relationships with repurchase/repurchase intent.

The theory provides the explanation for the differences in the strength of the researched constructs by recognizing different types of loyalty (behavioral, attitudinal, and composite). While behavioral loyalty is identified strictly as repurchase behavior, attitudinal loyalty takes into consideration consumer psychological attachments and attitude (Rauyruen & Miller, 2007).

Loyalty-Satisfaction

The results of meta-analysis suggest a strong positive relationship between researched constructs (0.5431). In addition, this relationship is moderated by the number of factors (geographic area of the collected sample, the product or service category, and the business setting). The field study results support the positive relationships between the investigated loyalty dimensions (commitment, trust, involvement, and word of mouth) and satisfaction, however the strength of those relationships appears not to be strong.

Different types of loyalty (behavioral, attitudinal, and composite), as suggested by theory, explain the difference in the strength in the obtained results. Two main views on the loyalty-satisfaction relationship emerged from the literature review: satisfaction is the main driver of consumer loyalty, and satisfaction is not sufficient enough for the loyalty formation. While the meta-analysis results are in support of the first view, the field study results support the second view.

Repurchase/Repurchase Intent-Satisfaction

The results of meta-analysis suggest a positive relationship between repurchase and satisfaction (0.5616), and repurchase intent and satisfaction (0.6314). Those relationships are moderated by the number of factors (geographic area of the collected sample, the product or service category, and the business setting). The field study results support the positive relationships between the investigated research constructs; however, the strength of those relationships appears not to be strong.

Two main views, emerged from the literature review, explain the difference in the strength of the repurchase/repurchase intent and satisfaction relationship. While meta-analysis results support the view that satisfaction is an indicator of repurchase, and field study results support the second view, that satisfaction and repurchase/repurchase intent have a weak relationship or no relationship at all.

In addition, the differences in the strength of the meta-analysis and the field study results could be explained by the type of the product. Auto makers accounted for the majority of the collected studies in the meta-analysis, while consumers of apparel products, such as a pair of jeans, were investigated in the field study. Consumers of different types of products display different strength of the repurchase-satisfaction relationship. For example, if the consumer pays $40,000 for a car, his or her expectations for satisfaction and the repurchase rate might be very different compare to consumers of apparel products.

Discussion

The overall findings of this research indicate that while meta-analysis and the field study results agree on positive relationships between the research constructs, the differences lay within the strength of those relationships. In addition to the theoretical foundation and the literature review, which provides the explanation for those differences, other possible causes can be in existence.

First, while meta-analysis compiled a large number of statistical findings conducted for different sample sizes, different industries, different products and services

around the world, the field study was conducted at a single place for a single product (a pair of jeans) for the homogeneous group of consumers.

Second, the majority of the undergraduate students participating in the field study consisted predominately of the generation Y, full-time, white male students. The possible reasons that survey participants did not display any strong relationships between loyalty-repurchase-satisfaction could be attributed to the following:

1. Personality. According to the participants' comments, they prefer to spend less time when they shop and buy jeans only when they need them. They look for the best fit at the lowest price rather than the specific brand.

2. The financial situation. The majority of the study participants did not indicate any income. According to the participants' comments, they prefer to buy jeans on sale rather then to look specifically for their favorite brand.

3. Product/Market. The variety of different brands of jeans available in a wide range of prices could negatively affect consumers' loyalty towards a specific brand.

The following examples of the written comments from survey participants provide the support for the above mention points:

Personality:

"I don't care about brands, it's how well they [jeans] fit." "If I found a consistently well-fitted brand then I would prefer that." "I pick the jeans that fit best, not about a brand." "Not concerned w/ brand but w/ fit." "Jeans are made to suit personality. People usually choose jeans which they look good in." "When I buy jeans my consideration is the fit of the jean. I don't care too much about price or brand." "It's all about the model and the color." "Brand loyalty in this case

only exists for me if a brand continues to carry the type of jeans I like." "I usually

do not buy a specific brand, I usually just go to Wal-Mart or something and pick a

pair that looks and fits good, whatever the brand is." "I am not a big shopper." "I

don't really think about jeans that much."

The financial situation:

"I buy the cheapest pair from Wal-Mart that fits decent." "I buy the jeans that has

a good price." "If jeans fit good and are the right price, I will buy them. I usually

go for what is on sale first." "I like cheap jeans and nothing else." "I basically buy

jeans mostly based on price. I can't justify spending more than a certain amt. on

one pair of jeans." "When I look for jeans, price is a big factor. If I can buy a

cheap pair vs. an expensive pair that fit the same, it doesn't really matter what the

brand name is."

Product/Market:

"All brands are good." "To me, jeans are jeans. I shop by price and fit, not name

brand." "I buy considering price only; all jeans are the same to me."

<u>Chapter Summary</u>

This chapter presented the statistical findings of the methodology discussed in

Chapter III. Meta-analysis and SEM techniques were employed. Meta-analyses were

conducted on loyalty-satisfaction-repurchase/repurchase intent constructs. In addition,

moderator analyses were conducted to further investigate relationships between the

researched constructs.

The proposed hypotheses were tested by using structural equation modeling (SEM). First, the demographic of collected data was examined. Then, the measurement and structural models were investigated. Modifications to the original proposed model were made to produce a good fitted model. The original and the final structural equation models were presented and discussed. Based on the obtained results of the final model, eight proposed hypotheses were supported. Finally, the results of meta-analysis and the field study were compared and discussed.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

The primary aim of this research was to conduct a quantitative review of loyalty-repurchase-satisfaction and to investigate their relationships. A cumulative representation of the relationships of these research constructs together with their strength and direction were provided. A field study of consumers of apparel products was conducted for additional investigation of relationships between the loyalty dimensions (commitment, trust, involvement, and word of mouth), repurchase/repurchase intent, and satisfaction. Furthermore, the theoretical and empirical evidence of loyalty and repurchase differences were examined and presented.

This chapter provides an overview of the research, summary of results, study limitations, contributions of the study, managerial implications, recommendations for future research, conclusion, and the overall summary.

Overview of Research

By incorporating published research on loyalty-repurchase-satisfaction with the overview of the Theory of Planned Behavior and the Expectation-Confirmation Theory, this study empirically tested the loyalty-repurchase-satisfaction relationships. The

discussion of theoretical backgrounds of the research constructs was presented based on the literature review. In addition, loyalty-repurchase differences were also addressed.

The empirical part of this research consisted of three phases. First, the findings were collected from a large number of empirical studies in order to identify the overall strength and the direction of relationships between three research constructs using a Hunter and Schmidt's meta-analysis technique.

Second, the field study was conducted for consumers of apparel products to investigate the loyalty-repurchase-satisfaction relationships by using a SEM technique. The initial structural equation model was modified in order to achieve a better fit. This resulted in the final structural equation model, which has met all the desired fit statistics.

Finally, the meta-analysis results were compared to the field study results. The conclusions were drawn based on the compared meta-analysis and SEM results for the proposed researched relationships.

Summary of Results

This research provided the following summary for the investigated relationships between three constructs: loyalty and satisfaction; repurchase/repurchase intent and satisfaction; and loyalty and repurchase/repurchase intent.

Loyalty and Satisfaction Relationship

The results of meta-analysis suggest a strong positive relationship between loyalty and satisfaction (0.5431), which is moderated by the number of factors that include geographic area of the collected sample, the product or service category, and the business

setting (B2B or B2C). The field study results supported the positive relationships between investigated loyalty dimensions (commitment, trust, involvement, and word of mouth) and satisfaction; however, the strength of those relationships appears to be weak. The findings provided support to the Bloemer and Kasper (1995) statement that loyalty-satisfaction relationship is complicated. The theoretical foundation of loyalty consists of different components such as behavioral loyalty, attitudinal loyalty, and composite loyalty. Each loyalty component displays different types of relationship with the satisfaction construct.

Oliver (1999) proposed six types of relationships between satisfaction and loyalty from satisfaction and loyalty being the same constructs to satisfaction and loyalty being very distinct.

While the meta-analysis results support the theory and the literature review on satisfaction as it is the main driver of consumer loyalty, the field study results support the view that satisfaction is not enough to form loyalty.

Repurchase/Repurchase Intent and Satisfaction Relationship

The results of meta-analysis suggest strong positive relationships between repurchase and satisfaction (0.5616), and repurchase intent and satisfaction (0.6314), which are moderated by the number of factors (geographic area of the collected sample, the product or service category, and the business setting). The field study results support the positive relationships between investigated research constructs; however, the strength of those relationships appears to be weak.

While meta-analysis results support the theory and the literature review that satisfaction is an indicator of repurchase, the field study results support the literature review that the link between satisfaction and repurchase/repurchase intent is weak, or that no link exists at all. Given that auto makers accounted for the majority of the studies in the meta-analysis, another moderator might be the value of the product in question. Consumers of different types of products display different strength of repurchase-satisfaction relationships.

Loyalty and Repurchase/Repurchase Intent Relationship

The overall results of meta-analysis and the field study provided support for the hypothesized positive relationship between those constructs. However, while meta-analysis results suggest a strong positive relationship between researched constructs (0.7058), the field study findings on loyalty dimensions (commitment, trust, involvement, and word of mouth) and repurchase/repurchase intent demonstrate that, although some loyalty dimensions (commitment) display strong relationship with repurchase/repurchase intent, other loyalty dimensions (trust, involvement, and WOM) do not display statistically strong relationships with repurchase/repurchase intent.

The limited number of published empirical studies on loyalty-repurchase relationships possibly indicates that the majority of the research in this area is conducted on identifying relationships between the specific loyalty dimension and repurchase/repurchase intent, rather than on identifying the relationship between the overall loyalty construct and repurchase/repurchase intent.

The difference in the strength of loyalty-repurchase/repurchase intent relationships obtained from meta-analysis and SEM could be explained from the theoretical foundation of loyalty as a multidimensional construct that displays different types of relationships. While behavioral loyalty is identified strictly as repurchase behavior, attitudinal loyalty takes into consideration consumer psychological attachments and attitude (Miller, 2007). In addition, the attitudinal loyalty further divides into cognitive, affective, and conative aspects. Dick and Basu (1994) proposed the attitude-repurchase relationship matrix with four scenarios: loyalty, spurious loyalty, latent loyalty, and no loyalty (see Table 3). Each of those scenarios displays different types of loyalty and repurchase relationships. Furthermore, based on the literature review, five factors were identified, which attribute to the loyalty-repurchase differentiation: attitude, inertia, changes in need, multi-brand loyalty, and social and situational factors (see Table 4).

While meta-analysis results support the theory and the literature review that loyalty and repurchase are strongly linked, the field study results support the literature review that this relationship is not strong.

Study Limitations

This study has the following limitations for the meta-analysis and the field study:

Meta-Analysis Limitations

1. Meta-analysis studies were collected from peer-reviewed publications by using internet search engines, manual searches, and other references. Studies were

required to report all needed statistics for conducting meta-analysis, such as correlation coefficients; statistics which could be converted to correlation coefficients; and the effect sizes. Therefore, this research did not include any conceptual papers, studies that partially reported needed statistics, or statistics that cannot be converted to correlation coefficients.

2. The moderator analyses were conducted only on three identified criteria: geographic region of the collected sample; the category (product and service); and the business setting (B2B and B2C). The possible presence of additional moderators might provide further insights and explanation for the obtained results and the overall findings.

3. Small sample sizes were collected for repurchase-satisfaction meta-analysis (11); repurchase-satisfaction moderator analyses for North America (3) and Service (4) factors; and repurchase intent-satisfaction moderator analysis for the B2B factor (13). This resulted in large standard deviations, which made confidence intervals wide enough to include zero. This in turn, might have an impact on the statistical significance of the obtained results for those relationships.

4. Given that auto makers accounted for the majority of the studies in the repurchase-satisfaction meta-analysis, another moderator might be present.

Field Study Limitations

1. The sample size was collected using undergraduate students, predominately white male, enrolled at a private university. Different population samples for different

types of product will display different loyalty, repurchase/repurchase intent-satisfaction relationships.

2. The survey instrument was a combination of several seven-point format marketing scales, where the interpretation of scale items such as "strongly agree," "agree," or other items may differ from one participant to another.

3. Four dimensions of loyalty (commitment, trust, involvement, and word of mouth) were examined on their relationships with repurchase and satisfaction variables. The investigation of additional loyalty dimensions could provide further insights into the researched relationships.

4. Following the Hair's seventh stage of the SEM, modification indices were examined to select only the paths that will strengthen the model. This resulted in the removal of the satisfaction-commitment path from the final structural model in order to achieve a better model fit. Therefore, the satisfaction-commitment relationship (H5) was not investigated.

Study Contributions

This research contributes to the growing knowledge on loyalty, repurchase, and satisfaction constructs, and their interrelationships.

First, the study provided the conceptual foundation by investigating different views on loyalty, repurchase and satisfaction with the overview of the Theory of Planned Behavior and the Expectation-Confirmation Theory.

Second, the current state of the empirical research on loyalty-repurchase-satisfaction relationships was assessed by using a meta-analysis technique. While many

studies independently examined different combinations of relationships, this research synthesizes the previously reported findings. Despite the reported mixed results on loyalty-repurchase-satisfaction relationships collected from a large number of published empirical studies, the meta-analysis findings suggests that strong positive relationships exist between the researched constructs, which are moderated by a number of factors.

Third, a field study for consumers of apparel products was conducted in order to further examine loyalty, repurchase, and satisfaction relationships for a better understanding of these constructs. The results of the field study were compared to the meta-analysis results to draw conclusions, which confirmed the literature review that those relationships are complicated, and are affected by a number of factors.

Managerial Implications

This study provides value to managers dealing with consumer satisfaction, loyalty, and repurchase by presenting a detailed overview of those three concepts, and relationships between them. Despite these relationships being not very straight forward, and affected by many internal and external factors, as the literature review suggests, the overall results indicated the positive link between loyalty, repurchase, and satisfaction. Satisfied consumers do display loyalty and a higher repurchase rate, while loyal consumers do display satisfaction and come back to repurchase the product or service.

Loyalty is a multidimensional construct, with some loyalty aspects being more predictive of repurchase than others. The nature of the industry, the company size, together with situational factors largely affects the consumers' loyalty, satisfaction, and the repurchase rate. Although the meta-analysis results suggest strong positive

relationships between loyalty-repurchase/repurchase intent-satisfaction constructs, which are moderated by many factors (see Table 21), the field study results, with the exception of the Commitment-Repurchase Intent, indicated that those relationships are not strong (see Table 34).

Managers need to take into consideration many factors before making a decision where to invest: either in creating consumer loyalty, increasing consumer satisfaction, or increasing a repurchase rate, which could also mean a temporary solution. The overall results of this study indicated that those three constructs are linked and affect each other.

Recommendations for Future Research

Additional research is recommended to further investigate the researched relationships. The meta-analysis part could be enhanced by including recently published studies, which were not available during conducting this research. An increase in the number of studies will help to conduct moderator analyses for more than three identified factors (geographic region of collected sample, the category, and the business setting).

Due to the large number of empirical studies conducted in the auto industry setting, a moderator analysis for the auto industry versus other industries can be conducted separately with the condition that enough published studies for other industries will be identified.

The loyalty-repurchase/repurchase intent relationship needs to be further investigated to provide additional information on this complex relationship.

The field study research could be enhanced by validation of the final structural equation model using different population samples. SEM provides the ability to modify

path to variables in order to achieve a better fitting model. Additional samples of consumers need to be examined to provide a basis for validity of the model and theory (Hair et al., 1998).

The testing of the research constructs in different situational environments (retail versus online shopping), or with different types of products or services also could present additional insights. An examination of the structural model using the business-to-business (B2B) setting in addition to the consumer-to-business (C2B) setting will be another area for future research to investigate how much consumers in B2B setting are differ, if any, from consumers in the C2B setting.

The loyalty construct consists of many other dimensions in addition to the examined commitment, trust, involvement, and word of mouth. Additional loyalty dimension might provide new insights on loyalty-repurchase-satisfaction relationships. By incorporating new loyalty dimensions, the structural model might require a new fit, which might keep the satisfaction-commitment path in place. This will allow an investigation of the satisfaction-commitment relationship.

<u>Conclusions</u>

The results of this research indicated that loyalty-repurchase-satisfaction relationships are not straight forward. Different aspects of loyalty display different types of relationships regarding repurchase and satisfaction. In addition, these relationships are moderated by a number of factors. However, despite the complex nature of the researched constructs, both meta-analysis and the field study results agree on a positive direction of those relationships. This research supports the theory and the literature

review on the loyalty-repurchase-satisfaction relationships. Overall, loyalty does positively link to the repurchase and satisfaction, while satisfaction does positively link to repurchase.

Summary

This research synthesized the previously reported findings on loyalty-repurchase/repurchase intent-satisfaction relationships. Results of meta-analysis demonstrate that those three constructs have positive, strong relationships. However, the relationships are moderated by different factors, including the geographic region of the collected sample, the category (products versus service), and the business setting (B2B versus B2C).

In addition, this study tested the proposed structural equation model to explain relationships between loyalty dimensions, repurchase, and satisfaction, which were examined by surveying consumers of apparel products. The results indicated that although positive relationships between the research constructs exist, not all relationships are significantly strong.

The mixed results of meta-analysis and the field study in terms of the strength of the investigated relationships indicate the need to expand this area of research further.

APPENDIX A

LOYALTY-REPURCHASE-SATISFACTION INSTRUMENT

<u>Directions</u>

- The intention of this survey is to identify the Loyalty-Repurchase-Satisfaction relationship among buyers of apparel products such as a pair of jeans.
- This survey will take approximately 10-15 minutes to complete.
- Respond to each question by checking the appropriate box.
- Please relate each question to your personal experiences.
- Please provide additional comments at the end. You may wish to elaborate on why you responded as you did to a particular question, or address additional issues.
- **All responses will remain anonymous.**

This academic research is being conducted for a doctoral dissertation at Nova Southeastern University, FL, USA.

Thank you for your time in completing this survey.

PLEASE ANSWER THE FOLLOWING DEMOGRAPHIC QUESTIONS:

1. What is your gender?
☐ Male
☐ Female

2. What is your level of income?   3. What is your occupation?_____
☐ $0-24,999
☐ $25,000-49,999
☐ $50,000-74,999
☐ $75,000-99,999
☐ $100,000 and above

4. What is your highest level of education?
☐ Post-graduate degree
☐ Graduated 4-year college
☐ Graduated 2-year college
☐ Graduated high school

5. How old are you?

☐ 18-24
☐ 25-34
☐ 35-44
☐ 45-54
☐ 55-64
☐ 65+

6. Ethnicity

☐ American Indian or other Native American
☐ Asian, Asian American, or Pacific Islander
☐ Black or African American
☐ White (non-Hispanic)
☐ Hispanic or Latino
☐ Other (specify) _____

PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR EXPERIENCE WITH PURCHASING AND OWNING A PAIR OF JEANS

Please indicate if you are loyal to the specific brand of jeans. If yes, please indicate the brand(s) in the space immediately below.

_____

A. BRAND LOYALTY WITH THE PRODUCT (A PAIR OF JEANS)

1. Commitment: a) Consumer's commitment to buy the same brand within a specified product category rather than seek variation.

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
1. I think of myself as a loyal buyer of jeans.	☐	☐	☐	☐	☐	☐	☐
2. I would rather stick with a brand I usually buy than try something I am not sure of.	☐	☐	☐	☐	☐	☐	☐
3. I like to switch between different brands of jeans.	☐	☐	☐	☐	☐	☐	☐
4. When I would have to buy another brand of jeans, I wouldn't know what brand to choose.	☐	☐	☐	☐	☐	☐	☐
5. There are few differences among brands of jeans.	☐	☐	☐	☐	☐	☐	☐
6. I prefer one brand of jeans I buy.	☐	☐	☐	☐	☐	☐	☐
7. I am willing to make an effort to search for my favorite brand.	☐	☐	☐	☐	☐	☐	☐
8. Usually, I care a lot about which particular brand of jeans I buy.	☐	☐	☐	☐	☐	☐	☐

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
9. If my favorite brand of jeans was not available at the store, it would make little difference to me if I had to choose another brand.	☐	☐	☐	☐	☐	☐	☐
10. I consider myself to be highly loyal to my favorite brand of jeans.	☐	☐	☐	☐	☐	☐	☐
11. When another brand is on sale, I will generally purchase it rather that my favorite jeans brand.	☐	☐	☐	☐	☐	☐	☐

b) A person's commitment over time to purchase a specified brand within a specified product category.

	Like very much						Dislike
	1	2	3	4	5	6	7
12. How much would you say you like or dislike your brand jeans?	☐	☐	☐	☐	☐	☐	☐

	Always buy						Never buy
13. When you buy a pair of jeans, to what extent do you buy a specific brand jeans?	☐	☐	☐	☐	☐	☐	☐

	Always						Never
14. When you buy a pair of jeans, to what extent are you "loyal" to a specific brand?	☐	☐	☐	☐	☐	☐	☐

2. Trust in Brand

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
15. I trust my brand jeans.	☐	☐	☐	☐	☐	☐	☐
16. I rely on my brand jeans.	☐	☐	☐	☐	☐	☐	☐
17. This is an honest brand.	☐	☐	☐	☐	☐	☐	☐
18. This brand is safe.	☐	☐	☐	☐	☐	☐	☐

3. Involvement

19. In selecting from many types and brands of jeans available in the market, would you say that:

I would not care at all as to which one I buy						I would care a great deal as to which one I buy
☐	☐	☐	☐	☐	☐	☐

20. Do you think that the various types and brands of jeans available in the market are all very alike or are all very different?

They are alike						They are all different
☐	☐	☐	☐	☐	☐	☐

21. How important would it be to you to make a right choice of a pair of jeans?

Not at all important						Extremely important
☐	☐	☐	☐	☐	☐	☐

22. In making your selection of a pair of jeans, how concerned would you be about the outcome of your choice?

Not at all concerned						Very much concerned
☐	☐	☐	☐	☐	☐	☐

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
23. I have little or no interest in shopping for jeans.	☐	☐	☐	☐	☐	☐	☐
24. The brands of jeans I buy make very little difference to me.	☐	☐	☐	☐	☐	☐	☐
25. It doesn't make much sense to spend a lot of time over a purchase decision since most brands are about the same.	☐	☐	☐	☐	☐	☐	☐
26. I am willing to spend extra time shopping in order to get the good pair of jeans.	☐	☐	☐	☐	☐	☐	☐
27. I don't like worrying about getting the best deal; I like to spend money as I please.	☐	☐	☐	☐	☐	☐	☐

4. Word-of-Mouth

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
28. I would recommend my jeans to someone who seeks my advice.	☐	☐	☐	☐	☐	☐	☐
29. I say positive things about my jeans to other people.	☐	☐	☐	☐	☐	☐	☐
30. I would recommend the brand of my jeans to others.	☐	☐	☐	☐	☐	☐	☐

B. THE PRODUCT REPURCHASE (A PAIR OF JEANS)

1. Purchase frequency (product specific)

	Very rarely						Very often (once a month)
	1	2	3	4	5	6	7
31. How often do you purchase a pair of jeans?	☐	☐	☐	☐	☐	☐	☐

	Never have purchased						Purchased within the last month
32. When was the last time you purchased a pair of jeans?	☐	☐	☐	☐	☐	☐	☐

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
33. I often repurchase my favorite brand of jeans.	☐	☐	☐	☐	☐	☐	☐

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
34. I look for my favorite brand when I go shopping.	☐	☐	☐	☐	☐	☐	☐
35. I own a several pairs of the same brand of jeans.	☐	☐	☐	☐	☐	☐	☐
36. I would repurchase my recently bought brand of jeans in the next few years.	☐	☐	☐	☐	☐	☐	☐
37. I would <u>not</u> repurchase my recently bought brand of jeans in the next few years.	☐	☐	☐	☐	☐	☐	☐

2. Consumer's general tendency to buy the same brands over time rather than switching around to try other brands.

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
38. I generally buy the same brands I have always bought.	☐	☐	☐	☐	☐	☐	☐
39. Once I have made a choice on which brand to purchase, I am likely to continue to buy it without considering other brands.	☐	☐	☐	☐	☐	☐	☐
40. Once I get used to a brand, I hate to switch.	☐	☐	☐	☐	☐	☐	☐
41. If I like a brand, I rarely switch from it just to try something different.	☐	☐	☐	☐	☐	☐	☐
42. Even though jeans are available in a number of different brands, I always tend to buy the same brand.	☐	☐	☐	☐	☐	☐	☐

3. Purchase intention

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
43. It is very likely that I will buy a specific brand pair of jeans.	☐	☐	☐	☐	☐	☐	☐
	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
44. I will purchase a specific brand pair of jeans the next time I need jeans.	☐	☐	☐	☐	☐	☐	☐
	Absolutely						**Absolutely not**
45. I will definitely try a brand pair of jeans.	☐	☐	☐	☐	☐	☐	☐

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
46. Suppose that a friend called you last night to get your advice in his/her search for a pair of jeans. Would you recommend him/her to buy a brand pair of jeans?	☐	☐	☐	☐	☐	☐	☐
47. I am planning to repurchase the same brand of jeans I recently bought.	☐	☐	☐	☐	☐	☐	☐
48. I would continue go buy the same brand even if prices increased somewhat.	☐	☐	☐	☐	☐	☐	☐
49. I would buy other brands that offer more attractive prices.	☐	☐	☐	☐	☐	☐	☐
50. Consider my recently bought brand of jeans the first choice next time I buy jeans.	☐	☐	☐	☐	☐	☐	☐
51. I would switch to a competitor if I will not like my brand of jeans	☐	☐	☐	☐	☐	☐	☐

C. SATISFACTION WITH THE PRODUCT

Please relate to your experience with the most recently bought pair of jeans.

1. Satisfaction (General)	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
52. This jeans is exactly what I need.	☐	☐	☐	☐	☐	☐	☐
53. I am satisfied with my decision to buy this pair of jeans.	☐	☐	☐	☐	☐	☐	☐
54. My choice to buy this pair of jeans was a wise one.	☐	☐	☐	☐	☐	☐	☐

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
55. If I could do it over again, I'd buy a different make of jeans.	☐	☐	☐	☐	☐	☐	☐
56. I have truly enjoyed this pair of jeans.	☐	☐	☐	☐	☐	☐	☐
57. I am <u>not</u> happy that I bought this pair of jeans.	☐	☐	☐	☐	☐	☐	☐

2. Satisfaction (consumption) with a product after the selection/purchase has been made.

	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
	1	2	3	4	5	6	7
58. My choice turned out better than I expected.	☐	☐	☐	☐	☐	☐	☐
59. Given the identical set of alternatives to choose from, I would make the same choice again.	☐	☐	☐	☐	☐	☐	☐

THANK YOU FOR COMPLETING THE SURVEY

Please provide your comments.

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