8-14-2007

Determinants of Brand Sensitivity in Organizational Buying Contexts

Brian Paul Brown

PERMISSION TO BORROW

Brian P. Brown
University of Massachusetts – Amherst

NOTICE TO BORROWERS

All dissertations deposited in the Georgia State University Library must be used only in accordance with the stipulations prescribed by the author in the preceding statement.

The author of this dissertation is:

Brian P. Brown

The directors of this dissertation are:
Dr. Danny N. Bellenger
Dr. Wesley J. Johnston

ACCEPTANCE

This dissertation was prepared under the direction of Brian P. Brown's Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctoral of Philosophy in Business Administration in the Robinson College of Business of Georgia State University.

H. Fenwick Huss

Dr. Danny Bellenger(co-chair)
Dr. Wesley Johnston (co-chair)
Dr. Naveen Donthu
Dr. Joseph Hair (Kennesaw State University)

DETERMINANTS OF BRAND SENSITIVITY IN AN ORGANIZATIONAL BUYING CONTEXT

By BRIAN P. BROWN

June 2007

Committee Chairs:
Dr. Danny N. Bellenger
Dr. Wesley J. Johnston

Major Department: Marketing

Business-to-business (B2B) marketing practitioners are increasingly relying on branding strategies though academic researchers have been slow to study branding in organizational contexts. By integrating existing conceptual models and research findings, this study examines the noteworthy differences between the B2B and the consumer market contexts and the implications of those differences on the formulation of B2B brand strategies. We introduce a conceptual model that suggests the conditions that are likely to increase or decrease organizations' propensity to select branded products versus lesser-known or generic products when selecting suppliers, otherwise referred to as brand sensitivity. The proposed model is grounded in risk theory and posits that buying center, purchase situation, and product/relationship variables influence an organization's brand sensitivity. Finally, we present the findings and implications of the multi-method research approach that was utilized to test the model of the determinants of brand sensitivity in organizational buying contexts. Results suggest that the level of intangibility is the key determinant of brand sensitivity in such settings.

DETERMINANTS OF BRAND SENSITIVITY IN ORGANIZATIONAL BUYING CONTEXTS

By

Brian P. Brown

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree
of
Doctor of Philosophy
in the Robinson College of Business
of
Georgia State University

GEORGIA STATE UNIVERSITY
ROBINSON COLLEGE OF BUSINESS

2007

TABLE OF CONTENTS

ABSTRACT **12**

CHAPTER 1 - INTRODUCTION **14**

PURPOSE OF THIS STUDY 17
ORGANIZATION OF THIS DISSERTATION 17

CHAPTER 2 - LITERATURE REVIEW **18**

BRANDING IN B2B CONTEXTS 18
The Meaning and Value of Branding. *18*
The B2B Versus Consumer Market Dimensions Continuum. *23*
Contextual Conditions. 24
Contextual Conditions Summary 28
Psychological Conditions. 28
Psychological Conditions Summary: 34
Product Variables. 34
Product Variables Summary 41
Marketing Communications Variables. 42
Marketing Communications Variables Summary 45
MODEL DEVELOPMENT 45
Theoretical Background *46*
Branding in a B2B Context. 46
The Buying Center. 47
The Influence of Perceived Risk. 49
Brand Sensitivity and Perceived Risk. 53
A Conceptual Model of the Determinants of Brand Sensitivity *55*
The Buying Center and Brand Sensitivity. 55
Purchase Situation Variables and Brand Sensitivity. 58
Product/Relationship Variables and Brand Sensitivity. 59
Individual Risk Attitude. 62

CHAPTER THREE - RESEARCH DESIGN AND METHODOLOGY **65**

OVERVIEW 65
SCOPE OF STUDY 66
RESEARCH PLAN 68
PHASE 1: SURVEY METHODOLOGY 69
Sampling Plan. *69*
Measures and Measure Development Procedures. *69*
Method of Analysis. *74*
PHASE 2: EXPERIMENTAL DESIGN 75
Sampling Plan. *75*
Manipulations and Measures. *75*
Method of Analysis. *76*

CHAPTER FOUR - DATA COLLECTION AND ANALYSIS **78**

PHASE 1: SURVEY METHODOLOGY 78
Pre-Test *78*
Main Study: Measurement Model Validation Procedures *80*
Main Study: Structural Model Validation Procedures *82*
Moderating Effects of Individual Risk Attitude *84*
Alternative Model: Moderating Effects of Perceived Risk *85*
Alternative Model: Mediating Effects of Perceived Risk *85*
Summary of Phase 1: Survey Findings *87*

PHASE 2: EXPERIMENTAL DESIGN ... 87
Manipulation Checks ... *89*
Hypotheses Tests ... *91*

CHAPTER 5 - DISCUSSION, IMPLICATIONS AND LIMITATIONS ... 93

DISCUSSION OF RESULTS ... 93
THEORETICAL IMPLICATIONS ... 96
MANAGERIAL IMPLICATIONS ... 99
LIMITATIONS ... 103
FUTURE RESEARCH ... 104

TABLES AND FIGURES ... 107

APPENDIX A ... 137

APPENDIX B ... 155

REFERENCES ... 169

LIST OF TABLES

TABLE 1: Hypothesized Direct and Moderating Effects on Brand Sensitivity
TABLE 2: Variables/Conditions that Suggest High vs. Low Brand Sensitivity
TABLE 3: Scope of Study
TABLE 4: Research Plan
TABLE 5: Pre-Test: Demographics and Background Information
TABLE 6: Final Data: Demographics and Background Information
TABLE 7: Pre-Test Construct Reliability Summary
TABLE 8: Final Data Construct Reliabilities
TABLE 9: Measurement Model Summary
TABLE 10: Main Study Descriptives and Cronbach's Alpha
TABLE 11: Main Study Parameter Estimates, t-Values, and SMCs
TABLE 12: Main Study Composite Reliabilities and AVE
TABLE 13: Structural Model: Fully Disaggregated Model Results
TABLE 14: Structural Model: Partially Disaggregated Model (Main Model)
TABLE 15: Alternative Model 2: Mediating Effects of Perceived Risk
TABLE 16: Experimental Design: Demographic Characteristics
TABLE 17: Experiment 2: Hypotheses Test Results
TABLE 18: Experiment 3: Hypotheses Test Results

LIST OF FIGURES

FIGURE 1: The B2B-Consumer Market Dimensions Continuum
FIGURE 2: Determinants of Brand Sensitivity Moderated by Risk Attitude
FIGURE 3: Determinants of Brand Sensitivity: Fully Disaggregated Model
FIGURE 4: Determinants of Brand Sensitivity: Partially Disaggregated Model (Main Model)
FIGURE 5: Alternative Model: The Mediating Effects of Perceived Risk

LIST OF APPENDICES

APPENDIX A: Phase 1: Final Survey Instrument
APPENDIX B: Phase 2: Final Experiment Instrument

ABSTRACT

DETERMINANTS OF BRAND SENSITIVITY
IN AN ORGANIZATIONAL BUYING CONTEXT

By

BRIAN P. BROWN

June 2007

Committee Chairs: Dr. Danny N. Bellenger
Dr. Wesley J. Johnston

Major Department: Marketing

Business-to-business (B2B) marketing practitioners are increasingly relying on branding strategies, though their use has been limited almost exclusively to consumer marketers. Academic researchers have been slow to study branding in organizational contexts. By integrating existing conceptual models and research findings, this study examines the noteworthy differences between the B2B and the consumer market contexts and the implications of those differences on the formulation of B2B brand strategies. We introduce a conceptual model that suggests the conditions that are likely to increase or decrease organizations' propensity to select branded products versus lesser-known or generic products when selecting suppliers, otherwise referred to as brand sensitivity. The proposed model is grounded in risk theory and posits that buying center, purchase situation, and product/relationship variables influence an organization's brand sensitivity. Finally, we present the findings and implications of the multi-method research approach that was utilized to test the model of the determinants of brand sensitivity in organizational buying

contexts. Results suggest that the level of intangibility is the key determinant of brand sensitivity in such settings.

CHAPTER 1 - INTRODUCTION

Business-to-business (B2B) marketing with respect to the use of branding as a strategic tool is changing. B2B marketers have begun to rely on brand-building strategies in a manner consistent with their consumer counterparts. As they seek to increase firm performance, they have turned to branding efforts as a central component of their overall corporate strategies. The case of BASF exemplifies this trend. "We don't make a lot of the products you buy. We make a lot of the products you buy better" is the tagline from its long-running advertising campaign is credited with elevating the chemical manufacturer to one of the world's most admired global companies and to elite status in the chemical industry category. Since the campaign's launch in 1989, BASF's North American sales has increased from $3.2 billion to $8 billion, and once only associated with magnetic recording tape, the BASF brand now stands for innovation, partnership, and technology leadership that helps its business partners make better products (Lamons 2005). "Raising the BASF profile has put us on the bid list for things people didn't know we made ten years ago," states Terry O'Connor, former marketing services director, "and in many cases, it gives us the inside track, because customer expectations are higher" (Lamons 2005, p. 94).

The BASF transformation is one case in a growing body of evidence in support of applying branding principles in B2B contexts. Marketing practitioners have begun to reallocate resources accordingly. Spending as well as the level of commitment to advertising by B2B marketer leaders is up based on industry trends. According to American Business Media's Business Information Network (BIN), compared to 2004, B2B advertising spending grew 2.4% in 2005, and advertising revenue in B2B publications increased 5.4% (Business

Publisher 2006; Stone 2006). Consider Accenture's $175 million and Computer Associates' $100 million advertising investments (Anonymous 2001). Indeed, the American Marketing Association's Marketing Matters Newsletter (2006) proclaims, "The future looks bright for business-to-business marketing, with bigger budgets, more online marketing, and new ad campaigns expected in 2006."

Although branding in consumer contexts has a rich literature, with few exceptions, it has been largely ignored as a significant area of focus by B2B academics (Kim, Reid, and Dahlstrom 1998; Low and Blois 2002; Mudambi, Doyle, and Wong 1997). The arguments for this oversight are ambivalent. That is, there is an assumption that business markets are too similar to consumer markets to warrant dedicated exploration in business settings. At the same time, there appears to be an assumption that the dynamics of organizational settings supersedes the emotion-laden principles of brand strategy.

The division between industrial marketing and consumer marketing has been well-documented, including differences between product and market variables and differences in the decision-making processes (e.g., de Chernatony and McDonald 1998; Johnston and Bonoma 1981; Johnston and Lewin 1994). Few question whether there are differences between business and consumer markets. Yet, some scholars have questioned whether the importance and the degrees of the differences are as meaningful as originally conceptualized. Most notably, Fern and Brown (1984) initiated the debate regarding assumptions of a chasm between business and consumer marketing, claiming that the dichotomy is neither based on theory or empirical support. Further, they suggest that the implications of such an argument include the establishment of “artificial intra-disciplinary boundaries which inhibit the development of marketing theory” (Fern and Brown 1984, p. 68).

Though, organizational buying researchers have formulated a general understanding of the uniqueness of business markets, a lack of understanding of branding and its role in B2B contexts remains. This opportunity has resulted in an increasing interest in the role brands play in industrial settings as illustrated by a number of recent conceptual and empirical studies (e.g., Bendixen, Bukasa, and Abratt 2004; Gordon, Cantone, and di Benedetto 1993; Low and Blois 2002; McQuiston 2004; Mudambi 2002; Mudambi et al. 1997). Extant literature and industry success stories suggest that brands play an important role in organizational buying. It is therefore incumbent upon academic researchers to address the unanswered questions that remain. For example, it is unclear what branding means in a business marketing context versus a consumer marketing context: In what relevant ways does branding in business markets differ from consumer markets? If indeed there are meaningful differences, what can business marketers do to make effective use of branding? Finally, if, as existing literature suggests, brands are not relevant in all business scenarios, what are the conditions where brands matter and when might practitioners effectively apply branding principles?

Purpose of this Study

We argue that branding in B2B contexts has received only scant attention and is therefore theoretically underdeveloped. The purpose of this study is to examine branding in organizational contexts versus consumer contexts by developing and testing a conceptual model that suggests the conditions that are likely to increase or decrease organizations' brand sensitivity when selecting suppliers. The proposed model is grounded in risk theory and posits that buying center, purchase situation, and product/relationship variables influence an organization's brand sensitivity.

Organization of this Dissertation

After this introduction, this manuscript will be structured in the following way. Chapter 2 is divided into two sections. The first section reviews extant literature that highlights the importance of studying branding in B2B contexts because of ten key dimensions, including risk characteristics that distinguish it from branding in consumer contexts. The second section expands on relevant literature on risk theory in organizational buying environments, as well as additional literature on branding. It also introduces brand sensitivity as our central construct and presents a conceptual model of determinants of brand sensitivity. Chapter 3 describes the research design and methodology that will be utilized to test the hypothesized relationships, including key constructs, measures, and data collection procedures. Chapter 4 summarizes the results of our analyses. Finally, Chapter 5 highlights key contributions of the study, as well as managerial, research, and theoretical implications. It will conclude with an evaluation of the study's key limitations and directions for future research.

CHAPTER 2 - LITERATURE REVIEW

This chapter is divided into two major sections. The objective of the first section is to highlight the importance of studying branding in B2B contexts separately from branding in consumer contexts. It posits ten key dimensions that distinguish the two domains and suggests that branding in B2B settings has been underresearched and requires focused study. The objective of the second section is to review extant literature that substantiates the conceptual model advanced in this study. It introduces risk theory as an underlying framework that serves to explain the hypothesized relationship between buying center, purchase situation, and product/relationship variables, and an organization's level of brand sensitivity.

Branding in B2B Contexts

The Meaning and Value of Branding.

Before examining the differences in B2B versus consumer markets that have a potential impact on the likely success of B2B branding strategy, it may be helpful to clearly define the meaning and value of branding. Kotler (1991) defines a brand as "a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors." Thus, a brand is an identifier of some entity, with the notion that the brand name allows consumers to identify one product from another confidently. Complications occur when one considers the multidimensionality of a brand. de Chernatony and McDonald (1998) describe the state of affairs regarding brand definitions as being one where "a plethora of brand definitions" exist for the benefit of practitioners, but none fully describes the concept. Yoo and Donthu (2001) echo this sentiment by noting that there are many brand definitions in marketing literature. Importantly, they conclude that there is at least consensus around brand equity as the incremental utility or value added to a product by its brand name. Still, researchers express divergent viewpoints on the dimensions of brand equity, the factors that influence it, the perspectives from which it should be studied, and the ways to measure it (Ailawadi, Lehmann, and Neslin 2003). Indeed, extant literature is littered with various ad hoc brand equity measures that fail to apply rigorous psychometric tests (Yoo and Donthu 2001).

The value that a brand has is generally captured in the concept of brand equity, although no single definition of brand equity is universally accepted. Ailawadi et al. (2003) suggest that disagreement regarding a generally accepted definition of brand equity is likely due to whether it should be considered from a consumer perspective or a financial perspective. Srivastava and Shocker (1991) define brand equity as "the set of associations and behaviors on the part of brand's customers, channel members, and parent corporation that permits the brand to earn greater volumes or greater margins than it could without the brand name and that gives the brand a strong, sustainable, and differentiated advantage over the competitors" (p. 93). They consider brand equity to be a multidimensional construct comprised of brand strength and brand value. Brand strength refers to more consumer-oriented effects and brand value refers to financial valuation. Leuthesser (1988) summarizes Shocker and Weitze's definition of brand equity from a consumer perspective as a utility, loyalty, or differentiated clear image not explained by product attributes, and from a firm perspective as the incremental cash flow resulting from the product with the brand name compared with that which would result without the brand name (Ailawadi et al. 2003). Similarly, Aaker (1996, p. 7) defines brand equity as, "[a] set of brand assets and liabilities linked to a brand, its name or symbol that add or subtract from the value provided by a product or service to a firm and/or to that firm's consumers." Aaker (1991) also suggests four dimensions of brand equity: brand awareness, perceived quality, brand associations, and brand loyalty.

Keller and Lehmann (2001) divide existing measures of brand equity into three categories: customer mind-set, product-market outcomes, and financial market outcomes. The consumer mind-set perspective tends to assess an end-consumer's psychological perspective of a brand, including one's awareness, attitudes, associations, attachments, and loyalties toward a brand (Ailawadi et al. 2003). For example, Keller (1993) introduces the concept of customer-based brand equity as the differential effect of brand knowledge on a consumer's response to the marketing of the brand. Brand knowledge is conceptualized according to an associative network memory model in terms of brand awareness and brand image. Brand awareness includes elements of brand recall and recognition and brand image includes the set of brand associations and their favorability, strength, and uniqueness.

The concept of a brand can best be thought of as a psychological phenomenon (Webster and Keller 2004). Brand awareness and brand image are two components of the psychological meaning of a brand. Customers must know what products and services are associated with a brand (brand awareness), what attributes and benefits the brand offers (brand value), and what makes it better and distinctive (brand image). Hence, much of the brand equity literature is considered from the standpoint of a consumer's perceptions about a particular brand. Although there is an increased effort to capture a brand's financial value (e.g., Reinartz and Kumar 2000; Rust, Lemon, and Zeithaml 2004; Rust, Zeithaml, and Lemon 2000, 2004), brand value is often considered in terms of its more consumer-oriented connotations.

The value of branding is determined in large part by how much impact the brand has on a buyer's purchase decision. Brand sensitivity is a psychological construct that relates brands to a buyer's decision-making process (Lachance, Beaudoin and Robitaille 2003). Kapferer and Laurent (1988) introduced the brand sensitivity construct in a study comparing national brands with unbranded or private label brands. They recognized the need to measure variation in brand importance from one category to another and one buyer to another. Referring to an individual or buyer as brand sensitive means that brands play an important role in the psychological process that precedes the buying act (Lachance et al. 2003). Blomback (2005) notes the importance of studying brands and brand strategy as it affects a buyer's purchase decision. Brand strategies will have an increased likelihood of success in instances where consumers are unable to adequately judge purchase quality and when they are linked to products that influence consumers' personal identities (Riezebos 2003). Blomback concludes that marketers need to understand brand sensitivity in order to optimize a brand's potential market impact.

Due to the nature of business markets, some marketers have recognized that branding principles in B2B markets may need to differ from those in consumer markets. For example, Gordon et al. (1993) and Bendixen et al. (2004) validated the existence of brand value in industrial markets and identified specific differences between branding in consumer versus business contexts. Webster and Keller (2004) propose that brand equity becomes more important depending on the complexity of the procurement problem, the scope and size of the buying unit, and the time required to make a purchase decision. Moreover, it is apparent that an industrial brand communicates value beyond the functionality of a particular product. In the B2B context, brand equity is “a perception that the brand/brand name conveys the likelihood of positive value to the buyer” (Kim, Reid et al. 1998, p. 3). McQuiston (2004) suggests that for industrial products, branding is a multidimensional construct that includes not only how the customers view the physical product, but also the logistics, customer support, and corporate image and policy that accompany the product. Citing Ward et al. (1999), McQuiston notes that to the B2B marketer, a brand is “a distinctive identity that differentiates a relevant, enduring, and credible promise of value associations with a product, service, or organization that indicates the source of that promise (p. 348).

de Chernatony and McDonald (1998) propose a definition of a successful brand that integrates consumer and industrial market characteristics: “A successful brand is an identifiable product, service, person or place, augmented in such a way that the buyer or user perceives relevant, unique added values which match their needs most closely. Furthermore, its success results from being able to sustain these added values in the face of competition” (p. 20). The advantage of this conceptualization is that it captures the essence of brand advantage in consumer and B2B environments. Specifically, it alludes to buyers as well as end-consumers, the augmented services required by organizational buyers, and the notion of ongoing, buyer-seller relationships.

This review of current thinking regarding the meaning and value of brands indicates that brand strategy is an important area of study in consumer and business settings. However, this discussion magnifies gaps in the branding literature. First, there is a need to extend branding research into industrial markets. As Mudambi (1997) notes, consumer branding strategies are not directly transferable to industrial markets because they fail to take into account insights gained from research in organizational buying, buyer-supplier relationships, and industrial segmentation. Second, there is a need to understand the conditions that affect a buyer's or user's sensitivity to branded goods or services. Finally, there is a need to accurately define key brand-related constructs in order to develop reliable measurement instruments.

The B2B Versus Consumer Market Dimensions Continuum.

Turning now to B2B versus consumer markets, Gilliland and Johnston (1997) imply that B2B and consumer markets significantly differ in contextual conditions, psychological conditions, and marketing variable conditions. Similarly, we contend that the impact of branding differs in business versus consumer markets because of business markets' unique contextual conditions, psychological conditions, product variables, and marketing communication variables. The B2B-Consumer Market Dimensions Continuum (Figure 1) is proposed as a tool that allows comparisons between the two contexts. It illustrates how the two markets differ in terms of their general tendencies.

Contextual Conditions.

The notion of the purchase situation is a key consideration in organizational buying literature. Johnston and Lewin (1994) propose that the risk associated with organizational purchase situations range between low levels and high levels. Purchase situation factors can be categorized as those relating to the company, product, and individuals within the firm. The novelty of the purchase, complexity of the purchase situation, and especially the importance of the purchase situation are powerful determinants of a buying center's decision-making process (Johnston and Bonoma 1981).

The novelty of the purchase situation refers to "the lack of experience of individuals in the organization with similar purchase situations" (McQuiston 1989, p. 69). The novelty of a product purchase is expected to affect the level of a buyer's perceived risk. In a consumer behavior context, Heilman, Bowman and Wright's (2000) theory of dynamic brand choice claim that the likelihood of choosing an "underdog" brand will be low upon entering a new category, while the likelihood of selecting an "underdog" brand will increase with purchasing experience as perceived risks for lesser-known alternatives decrease. In short, with experience in a category, consumers are expected to be more likely to choose a lesser-known brand. In an organizational behavior setting, Heide and Weiss (1995) suggest that buyers with more experience are likely to choose a known brand due to organizational memory. This apparent disagreement supports our call for additional study of brand influence in organizational buying contexts.

Product specific factors associated with the purchase situation, such as perceived risk, time pressure, and type of purchase may influence selling firms' efforts to build brand equity (Sheth 1973). We expect these factors influence a buying firms' propensity to be swayed by a product's/service's brand equity, or perhaps more pertinently, a firm's reputation. Technical complexity and value for the item are likely to be positively correlated with the degree of perceived risk. Thus, a high value, technically complex, important-to–the-production process purchase will have a high level of risk associated with its purchase (Mitchell 1995).

McQuiston (1989, p. 70) defines purchase importance as "the impact of a purchase on organizational profitability and productivity." The importance of the product, as indicated by the degree to which product specifications meet a buyer's perceived needs, is expected to impact the perception of the product/service brand (Kim et al. 1998). Valla (1982) suggests that three product categories can be used to help explain variations in the degree of risk perceived in a buying situation: banal products, products of importance in the production process, and strategic products. Because of the importance of most purchases, industrial buyers are expected to differ from end consumers in terms of their general level of involvement and of the frequency of strategically important purchases. We expect that the heightened level of involvement in specific product categories is a factor directly related to an organization's or buyer's brand sensitivity.

Researchers have studied two areas of complexity in industrial buying: complexity of the purchase situation and complexity of the product. McQuiston (1989, p. 70) defines complexity of the purchase as “how much information the organization must gather to make an accurate evaluation of the product.” He notes that studies of complexity generally find that increased complexity of the purchase situation leads to greater uncertainty for buying center members. Bendixen et al. (2004) point to research that indicates that branding may be more important in complex buying situations. We contend that this is the case due to the need for cues that signal the performance of a product/service and the need to manage risk in such situations. The fact that B2B purchase decisions involve more people also adds to the complexity of the process. Buying centers may have representatives from a number of functional areas, each with distinct functional specifications in mind. The concerns of all of these members must be addressed by the supplier, thus a brand must communicate a wide range of meanings.

Webster and Keller (2004) indicate that the role industrial brands play in time constrained purchase situations will vary. Sheth (1973) contended that time pressure may limit a seller’s ability to build an attractive brand, and Hutton (1997) hypothesized that organizational buyers will seek out established brands when faced with time constraints that prevent or limit adequate evaluation of product/service alternatives. Consequently, we assert that purchase situation variables, specifically purchase importance, complexity, novelty, and time constraints, influence a firm’s sensitivity to name branded products/services.

From a practitioner point of view, Minett (2002) suggests that marketing has evolved to the point of requiring a unique paradigm for B2B marketers, distinct from business-to-consumer marketers. He contends that the relevant boundaries between the two domains can be defined by: 1) the forces that drive product development and 2) the decision-making processes of organizational buyers versus end-consumers.

According to Minett (2002), the core paradigm area for business marketers is diametrically opposed to the core paradigm area for consumer marketers. He argues that in the "B2B" box, the focus is on consensually agreed upon needs, whereas in the "B2C" box, the concern is on the individual's/household's socially defined life-style and desires. Our research will be limited to these divergent contexts, as they are most common and most relevant to our discussion.

In a business context, products tend to be technologically advanced compared to a consumer context. The buyer is most concerned with functionality, particularly as it pertains to vendor claims. Products tend to follow linear trends in the business context, due to technical advancement. Additionally, purchases are made within an "ideology of rational choice" (Minett 2002, p. 69). That is, there tends to be at least some public, rational discourse regarding the purchase. Finally, there tends to be an objective, measurable outcome. As a result of the formality of organizational buys, purchases are likely to progress through purchase stages ranging from problem recognition to post-purchase analysis. In the consumer context, products tend to be fashion or lifestyle-oriented. Consciously or subconsciously, consumers are concerned with whether a product is consistent with personal image or values, and social-approval. Hence, consumer products are likely to follow more cyclical trends.

McQuiston (2004) views branding on the consumer and industrial sides as representative of a promise to consumers, but he suggests that the makeup of the brand promise differs in each context. After a product meets a consumer's fundamental, physical requirements, the promise of the brand tends to be more intangible in nature, offering consumers the "emotional security" of a recognized brand name. On the industrial side, a brand represents a multidimensional promise of value that includes factors beyond the promise of a physical good, including augmented services and company reputation.

The nuances of each context suggest unique marketing approaches and, thus, unique branding approaches. Industrial goods may require that buyers be educated on tangible, quantifiable benefits. Consumer goods may require that consumers develop psychological associations and imagery (Minett 2002). On the basis of these important contextual extremes, we expect that the role of brands will also differ.

Contextual Conditions Summary

1. The B2B context in general has a higher level of perceived risk than the consumer context. Thus, B2B buyers are more likely to select known brands and to rely more heavily on technological/utilitarian factors rather than self-expressive factors in brand evaluations.
2. B2B brand evaluation and selection processes are conducted by large groups (buying centers) rather than individuals or households. Thus, the brand must communicate a wider range of meaning which includes such elements as delivery and maintenance.

Psychological Conditions.

Organizational buyers are likely to be brand sensitive and select well-known brands under certain conditions, including when the risk of organizational or personal consequences are high (Hutton 1997). Furthermore, when there is a high perception of risk, there tends to be a propensity to "group buy" or share in the risk of the particular purchase (Mitchell 1995).

Valla (1982) suggests that the characteristics of the buying center (e.g., the number of people, nature of the decision-making process, and interpersonal relationships) are determinants of the level of perceived risk. Highly structured purchase procedures can offset high levels of psychosocial risk (Newall 1977).

Some individuals are innately more risk averse than others. Moreover, there are intrinsic motivational factors associated with risk naturally programmed into one's personality (Shapira 1986). A substantial amount of literature has emerged suggesting that individual risk minimization or avoidance is a key motivating factor in the industrial buying process (e.g., Puto, Patton, and King 1985; Qualls and Puto 1989).

The type of risk experienced by end consumers is likely to differ from that of organizational buyers in both magnitude and nature. The end-consumer is likely to be affected by group and/or personal risk; though in certain household scenarios (e.g., durable goods purchases), the adverse consequences of a purchase are likely to be limited to a single individual. In addition, the choices of an end-consumer are likely to include both luxuries and necessities, whereas organizational buyers are unlikely to purchase luxuries.

Hawkins, Best and Coney (2004) distinguish among five types of perceived risk: social risk, financial risk, time risk, effort risk, and physical risk. Financial, time and effort risk are broadly considered economic risks related to waste or inefficiency. Social risk is related to the risk that a purchase may not meet social acceptance by peers. Performance risk pertains to risk due to a likelihood of product failure (Henthorne and LaTour 1992). Assael

(1987) notes that the influence of performance risk is greatest when a buyer is dealing with a technically complex or unfamiliar product. Midgley (1983) considered variations on the level of search based on product type. He categorized products as functional, hedonic, and symbolic. Although all types of products might have some level of economic risk, performance risk is likely to be more important with functional products. Thus, performance risk is likely to be more pervasive in B2B settings than in consumer settings.

There is a level of social risk in organizational buying related to the perceived risk of a purchased product not meeting with the approval of other members of decision making unit (Henthorne and LaTour 1992). However, we expect that social risk is of far less significance to the organizational buyer than to the end consumer. Similarly, although economic risk is relative, we expect economic and performance risks are more dominant factors in organizational buying.

In summary, an important distinction between business and consumer markets is the type and level of anxiety a buyer experiences when making a purchase. The role of brands as risk-reducers is likely to differ according to the setting. In B2B buying, brand choice may play some role in reducing social risk, but branded products are more likely to reduce perceived economic and performance risks for organizational buyers more than for end consumers.

The self-expressive nature of consumer products and the individual purchase decision process often lead to impulse buying. Organizational buyers are unlikely to make impulsive purchases. The business market context almost certainly requires discussion among individuals within the prospective organization and personal contact between the buying firm and selling firm (Minett 2002). Both the technical nature of the product and the group purchase decision process suggest some level of rational discourse.

Organizational buyers are assumed to focus on purchase attributes that include price, quality, performance, and services. Because such criteria tend to be valued differently by different members of the buying center, debate is required. Moreover, the risk involved in an organizational purchase is likely to compel buyers to consult informal, personal sources of information (de Chernatony and McDonald 1998), including contacts with a sales representative or other personal relationships. Finally, because of the tendency to form longer-term and more collaborative relationships in business settings, organizational buyers are faced with the challenge of convincing themselves as well as other third parties about any proposed relationship (Minett 2002).

The concepts of reference groups and opinion leadership have been widely studied in consumer settings (e.g., Bearden and Etzel 1992; Bhattacharya, Rao, and Glynn 1995; Feick and Price 1987; Shouten and McAlexander 1995). There has been limited research on these phenomena in organizational settings (Greve 1998). Based on social comparison theory (Festinger 1954), reference group influence refers to situations where a person or group of people significantly influences an individual's behavior. The aspiration levels of individuals are determined by the performance of similar others and they tend to compare themselves with referent others for self-assessment or self-enhancement (Greve 1998).

Opinion leaders are group members whose actions and opinions are likely to have a strong influence on those of other members of the group (Webster 1970). According to consumer literature, consumers rely on opinion leaders to reduce the risk of certain purchases (Sheth and Venkatesan 1968). Consumer marketers often identify and study opinion leaders and even integrate them directly into their marketing communications as endorsers (Hawkins et al., 2004; Minett 2002).

Webster (1970) concludes that the influence of opinion leaders is rare in organizational settings. However, his findings were based on qualitative interviews with only 50 buyers and were susceptible to methods bias. Nevertheless, his study suggested that opinion-leader companies may have similar characteristics, including their generally larger size, commitment to new product development, progressive top management, and financial success. Martilla's (1971) study of word-of-mouth communication in industrial markets counters Webster's (1970) findings. Martilla attempted to verify whether the consumer product adoption process applied to industrial markets. He found that there are indeed opinion leaders within industrial firms and these opinion leaders are an important factor in industrial purchase decisions. Specifically, he found that buyers reported seeking information and opinions from opinion leaders within their own firms as well as in competing firms. Furthermore, he identified several characteristics of individual opinion leaders, including their level of perceived expertise, and their frequency and depth of exposure in product literature and trade journals compared with non-opinion leaders.

Recent literature has demonstrated that the study of reference groups in organizational contexts can have strategic advantages. Fiegenbaum and Thomas (1995) suggest that reference groups are found in organizational settings in the form of "strategic groups." These are typically organizations known to be "best practices" leaders in their respective industries. Through interorganizational signaling and imitation (Porter 1980), members of one strategic group tend to adjust their strategic behavior toward an appropriate group reference point. In addition, strategic groups tend to serve as "benchmarks" for firms actively repositioning their strategies. As such, in this context, reference groups play a normative role by establishing standards and norms, and a comparison point for making judgments and comparative evaluations. Massini, Lewin, and Greve (2005) found that innovative firms tend to consider different benchmarks of comparison more than their less innovative counterparts. They found that innovative firms compare themselves with, compete with, and try to differ from other innovative firms. In contrast, the majority of firms compare themselves with and conform to a broader group of firms. Thus, innovative firms tend to select different reference groups than less innovative firms.

In summary, consumer marketing literature has established that consumers explicitly seek out information or observe the behavior of reference group members and/or opinion leaders. Although the B2B marketing literature has dedicated fewer resources to the study of organizations as reference groups or the influence of intrafirm or interfirm opinion leaders, it is evident that there is theoretical and empirical support for these phenomena. In both contexts, reference groups and opinion leaders may provide information designed to reduce the risk of product purchases and influence behavior. However, several key distinctions are evident because of the unique product-market drivers and purchase decision processes of each context. Thus, the roles of brands are likely to differ in each context. Although consumers may be inclined to purchase brands endorsed by celebrity icons, such an approach is likely to be insufficient in a business setting because of the complexity of most industrial purchases and the roles of other buying center members. In B2B settings, buyers are more likely to be influenced by objective and expert testimonials or the actual performance of referent firms.

Psychological Conditions Summary:

1. Brands are likely to address primarily economic and performance risks in business settings, and primarily social risks in consumer settings.
2. Branding in B2B context has a greater need to promote a process of rational discord than is typically required in consumer contexts.
3. Brand selection by organizational buyers is more likely to be influenced by experts and best-in-class organizations, whereas consumers are more likely to be influenced by aspirational role models.

Product Variables.

In branding literature, researchers tend to study branded products such as those in the consumer packaged goods area. However, there is a growing stream of research that focuses on corporate branding phenomena (e.g., Brown and Dacin, 1998; Brown and Dacin 1997). In discussions of a brand's effect on a buyer, corporate brands and product brands must be separated because it is common in organizational marketing for buyers to talk about vendors as brands (e.g., IBM, DuPont, BASF).

Literature suggests that there is a continuum of corporate branding endorsement levels. On one end of the spectrum is what may be referred to as umbrella branding, corporate branding, or a "branded house" strategy (e.g., IBM, General Electric). A corporate branding strategy refers to "a systematically planned and implemented process of creating and maintaining a favorable reputation of an organization and its constituent elements, by sending signals to stakeholders using the corporate brand" (van Riel and van Bruggen, 2002, p. 242). At the other end of the spectrum is what may be referred to as the product brand or a "house of brands" strategy (e.g., Procter and Gamble). A product-brand strategy refers to the use of a brand name that is separate from the company's name on an individual offer or a line of similar offers (Blomback 2005). van Riel and van Bruggen (2002) extend the notion of a product brand by suggesting their "variety model" where business units, rather than just products, are positioned and profiled differently and are also different from the corporate level.

An important difference between business markets and consumer markets is that business markets tend to rely on an umbrella branding approach. Typically, organizational brand names bear the name of the company (Michell et al. 2001; Shipley and Howard 1993). de Chernatony and McDonald (1998) note that in any purchase, organizational buyers' main concern is with the supplier's corporate identity, as opposed to any specific product. According to Gordon et al. (1993), this tendency has important implications. First, the company name and its reputation, not individual product brands, are the main discriminator. Second, in many B2B contexts, brand loyalty is synonymous with firm loyalty. According to Mudambi (1997), company reputation lies at the heart of industrial branding strategy. Thus, a buyer's evaluation of an industrial product will include not only consideration of the functional benefits of a product, but also an assessment of the people in the company in terms of their skills, attitudes, behavior, modes of communication, and speed of response (Michell et al. 2001).

An effective corporate branding approach tends to offer advantages to the vendor and buyer. For the vendor, it allows for a portfolio of products to benefit from one corporate identity. This is particularly relevant due to the shorter brand life-cycles in industrial markets, as well as the opportunity to develop points of differentiation beyond functionality. Additionally, managing a single corporate brand tends to be much more cost-effective (de Chernatony and McDonald 1998). Moreover, loyalty towards a firm not only is likely to include the firm and its products, but also its channel members throughout its supply chain (Gordon et al. 1993). Michell et al. (2001) add that in more commoditized markets the use of the manufacturer corporate name appears to offer a higher likelihood of success than the use of individual product-brand names. Regardless of the market, corporate reputation appears to enhance value and tends to be difficult for competitors to imitate (Grant 1991; Michell et al. 2001). For the buyer, a supplier with an established corporate identity implies the formation of a value-added relationship with a firm, rather than the short-term benefits of a specific product or service (de Chernatony and McDonald 1998).

These benefits can be related to several rather unique characteristics of industrial marketing, including the importance of reputation, buyer-seller relationships, the nature of the decision-making process, and the challenge of communicating company benefits. Levitt (1967) investigated the extent of the advantages of well-established companies compared with little-known or unknown companies. He attempted to determine how the credibility of highly reputable companies affected the judgments of buyers, what he referred to as a “source effect.” Indeed, for complex, industrial products or materials, a company’s positive reputation positively affected its prospect’s buying decisions. More specifically, companies with solid reputations had a better chance of being considered in the initial stages of a purchase decision and an impact on the early adoption of new products. Importantly, Levitt found that “[w]hen it comes to the most important and most risky of customer actions–actually deciding to buy or reject a new product–assuming the various suppliers’ products to be equal in all respects, source credibility exerts a dominant influence over other considerations” (p. 18). Thus, a key consequence of corporate branding efforts is the establishment of a positive company reputation.

Levitt (1967) discussed that a company’s reputation can be instrumental in a bidding supplier’s success at “getting a foot in the door.” The familiarity with or the reputation of a brand or vendor is often used as an initial screening criterion in buying processes (Moller and Laaksonen 1986). According to Heide and Weiss (1995), buyers’ two key decisions are the consideration decision and the choice decision. In the awareness stage of the decision process, buyers consider the potential vendors available. Then they narrow their alternatives to a more limited consideration set. The consideration set refers to the subset of all the vendors from whom a buyer would seriously consider making a purchase in an immediate purchase situation. Heide and Weiss (1995) focus on several factors that affect consideration set inclusion: buyer uncertainty (e.g., due to pace of change or lack of experience), potential switching costs, buying center factors (e.g., formalization or centralization), or purchase situation variables (e.g., purchase importance). Favorable attitudes about a vendor among the diverse members of the buying group can exert a significant influence throughout the buying process. Indeed, Mudambi et al. (1997) found that the intangible associations attached to a market leader included less risk and the need not to explain or justify the choice.

A potential vendor's relationship with an organization is likely to impact inclusion in a more limited consideration set. B2B customers tend to rely on fewer vendors with long-term contracts for a greater percentage of their needs and, indeed, develop coordinated or working partnerships with each them as a means of coping with uncertainty (e.g., Achrol, Reve and Stern 1983; Anderson and Narus 1990; Pfeffer 1978). As a result, sellers that are considered relationship vendors are likely to be evaluated more on trustworthiness, reliability, and corporate credibility. In contrast, those that are only considered to be transaction vendors or non-vendors are likely to be evaluated solely on product performance, pricing, and tangible service attributes (Webster and Keller 2004).

Levitt's (1967) study confirms that the greater the personal risk to the sales prospect, the more persuasion it takes to actually switch from a current product or vendor to a new one. Moreover, customers tend to demonstrate levels of loyalty to their vendors due to the recognition that repeated patronage (as a "regular customer") may be a means of optimizing satisfaction and growing the relationship with the seller (Zeithaml 1981). The findings of the IMP Group imply that corporate brands can play an important role in the buyer-seller relationship because of the value of company reputation, particularly because relationships tend to be affected by the interactions between both parties over time (de Chernatony 1998; Hakannson 1982).

McQuiston (2004) states that in business markets, loyalty is often directed more toward the entire company than a specific brand, and the company's standing in the industry and its overall reputation are considered a part of the brand. He suggests that the desire for a relationship with a company with a solid reputation is due to the increased perceived risk of the generally technically complex product offerings. The promise of value that a supplier with a good reputation has can serve to reduce this risk. McQuiston supports this point by conducting a case study with a Finnish steel company. He found that the company's strong corporate image and reputation lessened the perceived risk associated with the purchase and the cognitive dissonance of its buyers.

The intangibility of a vendor's products and services is often difficult to communicate. Shostack (1977) implies that the greater the weight of intangible elements in a market entity, the more difficult it will be for a marketer to describe precisely its benefits. Conversely, a buyer will have a more difficult task in evaluating and ultimately selecting such a market offering. A good reputation can help offset this uncertainty (Levitt 1967). B2B marketing researchers have concluded that when evaluating industrial products, intangible attributes such as reputation and corporate image can be of equal or greater importance than tangible physical product attributes.

B2B marketing tends to focus on the tangible, customized product as well as the corresponding augmented services in the purchase decision. Functional elements may be most relevant, although emotional and self-expressive benefits may come into play. The differences between the two markets are likely to affect a buyer's perception of value. Ultimately, the role and effects of branding in terms of communicating value are likely to differ depending on the setting.

Mudambi et al.'s (1997) "pinwheel of brand value" is a conceptual framework that is a helpful illustration of the unique nature of brand value in industrial marketing. They posit that brand value is a function of the expected price, and the expected performance of tangible and intangible attributes. Brand value is comprised of four performance components that have tangible and intangible elements. "Product performance" refers to the core, physical product that is at the center of the brand's value. "Distribution performance" refers to the ease of ordering, availability, and speed of delivery. "Support services performance" involves issues such as technical support, training, and financial support. Last, "company performance" includes all aspects of the company, including its reputation, perceived experience in different industries, and financial stability. Thus, an industrial buyer must consider several categories of tangible and intangible attributes to determine brand value.

Mudambi (2002) identifies three bundles of attributes that are relevant to industrial buyers: the product, the augmented services, and branding. Product attributes include price and physical product properties. Augmented services attributes include technical support services, and ordering and delivery services. Last, branding attributes include general name awareness, the reputation of the brand, or purchase loyalty. On the basis of a cluster analysis of the precision bearings market, Mudambi found that firms differ on the importance of branding attributes. In general, "highly tangible" firms were product-oriented and expressed less interest in the intangible aspects of product offers. "Branding receptive" firms perceived branding elements and service aspects to be relatively important. Last, "low interest" firms tended to be indifferent to branding elements or augmented services. Thus, Mudambi concludes that branding is not equally important to all companies, to all customers, or in all purchase situations. The role of the brand in communicating value is likely to be affected by various factors, including the perceived risk of the purchase.

In summary, the perceived value of a purchase is likely to vary depending on the context. Accordingly, the role of brands is likely to vary depending on the context. McQuiston (2004) contends that for industrial products, branding is a multidimensional construct that includes not only how customers view the physical product, but ancillary factors like the logistics, customer support, company image, and corporate policies that accompany the product. Beyond the physical product, buyers look to brands to communicate value beyond physical performance. Another factor integral to a brand's success is a manufacturer's ability to deliver products and support services, often through intermediaries, reliably and efficiently. Finally, McQuiston (2004) suggests that because loyalty in industrial markets is often directed at the entire company rather than a specific brand, a company's goodwill and overall reputation in an industry are also considered a part of the brand.

Product Variables Summary

1. Organizational buyers rely on the corporate brand as a proxy for company reputation. Compared with end consumers, organizational buyers are concerned more with company reputation than with the product-brand reputation.
2. Compared with consumer brands, B2B brands communicate both tangible attributes, such as price and performance, and intangible attributes, such as reputation, distribution and support services.

Marketing Communications Variables.

Gilliland and Johnston (1997, p. 16) argue that "the inherent differences between B2B marketing and consumer marketing results in important differences in how marketing communication tools are processed and acted on by their targets." Although both consumer and B2B marketers rely on a variety of tools to promote their brands, the content communicated and the mediums used tends to differ. Thus, the communication strategies and tools are likely to vary according to the technological and functional attributes of a product and the make-up of the decision making unit.

Consumer goods are more likely to be selected because of their ability to express an end-consumer's personal characteristics and/or values (Minett 2002). As a result, the content of consumer messages tends to be largely image-based with an objective of eliciting emotional responses. Furthermore, the fact that consumer products tend to be relatively less technical and complex invites "iconic broadcasting" tools that are reasonably effective at addressing isolated individuals within a mass audience.

As do consumer marketers, B2B marketers utilize a wide variety of communication tools. The most frequently used tools tend to include the sales force, trade shows, trade magazines, sales materials, promotional techniques, and public relations and lobbying. Personal selling is the most important communication tool for the business marketer (Jackson, Keith, and Burdick 1987; Malaval 2001). It involves much more than an organization's sales force. O'Hara (1993) notes that trade shows, for example, are a variation of face-to-face selling, and are used commonly to supplement other personal selling programs. Parasuraman (1981) found that trade shows rank second behind on-site selling in influencing the buying decisions of industrial purchasers.

B2B marketing researchers suggest that the relative importance of various promotional elements may vary across products, purchase situations, and stages (Jackson et al. 1987). Lillien (1983) found that trade shows are more likely to be used for technically complex products and customers who are highly involved. Personal selling has been recognized as the most important and widely used promotional tools in all buying situations and purchase stages (Jackson, Keith, and Burdick 1987). Though not as important as personal selling, technical literature has also been found to be an important promotional element across all product types (Jackson et al. 1987). Traynor and Traynor (1989; see also de Chernatony and McDonald 1998) determined that suppliers found it most important to promote their brands through the salesforce, followed by advertising in trade magazines, trade shows, technical seminars, sales promotion materials, direct mail advertising, packaging, and, lastly, newspapers/television/radio advertising. Thus, because of the complex and technical nature of industrial products, and buyers' general interest in building relationships, the sales force plays a particularly critical role in personally communicating a business brand's key attributes. Although B2B marketers may rely less on broadcast and print advertising, advertising in these contexts can be used to reach individuals who are not normally reached by sales people. Instead of being a primary vehicle, it is generally used as a supplement to the efforts of salespeople and as a means of reducing the cost per sales call (Jackson et al. 1987).

Relative to the use of advertising, Gilliland and Johnston (1997) propose that the unique nature of B2B buying must be framed according to a buyers' contextual viewing conditions, the advertisement itself, and the contextual conditions of the ad; that is, the emotional and rational reactions of a buyer, as well as external influencers must be considered. Relying on the elaboration likelihood model, Petty and Cacioppo (1986) suggest that the assumption of organizational buyers somehow being immune to the emotional content of an advertising message is limiting. Instead, both the cognitive and affective routes to persuasion must be taken into account.

A consequence of the differing contexts of business and consumer marketing is that their marketing communication mediums and content must be appropriately adapted. Turley and Kelley (1997) compared the advertising content of B2B services with that of consumer services. On the basis of the generally accepted premises that distinguish between the two domains and organizational buyers' need for rational justifications, they hypothesized that rational appeals would be most frequent in B2B settings. They found significant differences between the message appeals and concluded that the general tone of the two types of ads were indeed different.

In summary, B2B marketers are likely to emphasize different mediums and include different content in their message compared with consumer marketers. Because of the differing contexts, brands require a different communication approach. In B2B settings, brand attributes require communication in a more interactive and even personal manner compared with traditional consumer techniques. In addition, in B2B settings, brand stimuli tend to require technical messages compared with the iconic messages typically used in consumer settings.

Marketing Communications Variables Summary

1. Brand value in B2B contexts tends to be communicated more through personal or interactive selling rather than the traditional broadcast media generally used in consumer settings.
2. The message used to communicate brand value in B2B contexts tends to require a higher level of technical content rather than the iconic content often used in consumer contexts.

The preceding discussion establishes that branding is indeed important in B2B contexts; branding's meaning and value in B2B settings are likely to be sufficiently different from those in consumer settings. Moreover, those differences can be categorized as contextual conditions, psychological conditions, product variables, and marketing communications variables. The B2B versus Consumer Market Dimensions Continuum suggests that each market has unique tendencies and that the appropriate brand strategy is likely to vary by degrees, or figuratively "slide" along a continuum between the two markets according to certain conditions. Section 2 continues this literature review by emphasizing the role of risk as a framework that can be used to explain brand selections in organizational contexts. Additionally, it introduces brand sensitivity as the construct of central importance in our proposed conceptual model.

Model Development

In spite of past claims that businesses rely solely on rational decision-making processes in purchase situations, studies in B2B contexts point to an important role for brand cues in organizational buying. The proposed model presented in this section adds to branding literature and B2B marketing literature by focusing on key factors that influence an organization's likelihood of selecting branded versus lesser known or generic products (brand sensitivity). Framed in risk theory, the model attempts to explain the relationship between a firm's buying team and the brand sensitivity construct. The model suggests that the buying team-brand sensitivity relationship is affected by three categories of variables: buying center, purchase situation, and product/relationship variables. Each is proposed to be moderated by a buying center member's individual risk attitude. The remainder of this chapter provides the rationale for the nomological network of relationships proposed in the model.

Theoretical Background

Branding in a B2B Context.

Recent literature has brought attention to the role of branding in B2B markets as well as its importance in the organizational decision-making process. Attributes such as reputation and image can be of equal or greater importance compared with concrete, physical product attributes to organizational buyers (Mudambi 2002). Results of a study conducted by Bendixen, Bukasa and Abratt (2004) indicate that overall, brand name explains 16% of buyers' choices. Users of the product and the technical specialists credit brand name with 28% and 24% of choice, respectively. Apparently, brand equity may not be crucial across all products and situations in the B2B context, but it is likely to be crucial at least when the purchase situation involves moderate to high levels of risk (Kim et al. 1998).

Risk perception has been related to brand selection in the consumer and organizational buying literature. Sheth and Venkatesan (1968) found that consumers rely on brand image as a risk reduction tool. Lehmann and O'Shaughnessy (1974) studied how choice criteria used by purchase agents vary with the type of problems likely to arise in adopting a particular product. They found that uncertainty reduction is a major motivation in decision making and industrial buying in particular. Moreover, they found that buyers attributed a high level of importance to a company's reputation due to their interest in reducing the risk to their organizations and themselves by selecting a product from a company with a good reputation. The strong relationship between corporate reputation and brand image was highlighted by Mudambi (2002). She noted that reputation addresses the image of the company to all its constituents, whereas branding focuses on the image of the company to its customers.

The Buying Center.

Johnston and Lewin (1994) contend that selling firms must understand the buying behavior of customer firms. This insight may be difficult to attain since buying behavior is often a multi-phase, multi-person, multi-departmental, and multi-objective process. Organizational buying literature has used the concept of the buying center to capture the multidimensionality of organizational buying. The buying center refers to all of those individuals in an organization who participate in the buying process for a particular product or service (Robinson, Faris, and Wind 1967). Its objective is the acquisition, importation, and processing of relevant purchasing-related information (Spekman and Stern 1979). As such, organizational buying is a multiperson decision-making process where most organizational purchasing decisions are influenced by various members of the buying center (Robinson, Faris and Wind 1967; Webster and Wind 1972). Moreover, the buying center’s composition, hierarchical levels, and lines of communication are not necessarily mandated or officially documented. Its membership ebbs and flows during the procurement process depending on the information requirements and needs of a particular buying context. Spekman and Stern (1979) describe the buying center as a nebulous construct that transcends functional groups.

A single individual rarely makes a procurement decision without the input or influence of other stakeholders in the organization (Wind 1976). Industrial buying is indeed a process that combines organizational and individual decision-making processes. Further, buying center decision-making may very well be conceived of as an amalgamation of organizational, departmental, and individual influences. After all, individuals will be subject to many social and interpersonal influences within the buying center and at multiple levels within the organization. He/she must be loyal to the needs of his/her department or group, while seeking to find broader, strategic solutions. Consider the potential conflicts between the engineering, purchasing, and/or marketing departments, for example. Typically, the engineering department may be more concerned with reliability, the purchasing department may be more concerned with cost, and marketing may be more concerned with a particular strategic objective. Thus, organizational buying behavior involves individuals making decisions in interaction with other people, both within and outside their organizations, in the context of their organization’s goals, resources, strategy and structure (Webster and Keller 2004).

To summarize, individuals within the buying group are known to have differential impacts on purchase decisions (Choffray and Lilien 1978). Mitchell (1998) found that personal risks are as important as organizational risks in organizational buying. He concluded that this finding emphasizes the under-valued and overlooked personal dimension of organizational purchasing. Each member of the buying center therefore is trying to achieve organizational goals, in the context of various resource constraints, in a way that minimizes personal risks and maximizes potential payoffs consistent with his/her personal needs and goals (Webster and Keller 2004).

For purchasing agents, perceived risk is considered to be one of their most important stress factors (Hawes and Barnhouse 1987). Hence, industrial buying decisions can be construed as both rational and emotional. For example, consider that a dominant brand attribute like performance may serve as a rational/functional signal, but a buyer may be swayed by more emotional appeals due to psychosocial risks since the failure of a generic or lesser-known brand is likely to harm his/her personal reputation (Webster and Keller 2004). Evidently, the interrelationships between the buying center as representative of an organization, a buying agent, or even one's department must be considered in organizational buying contexts.

The Influence of Perceived Risk.

Consumer behavior literature has considered the implications of risk on decision-making for decades. Bauer (1960) argues that risk taking is an integral part of consumer behavior, in the sense that any action by a consumer produces unanticipated consequences. As a result, consumers develop decision strategies and ways of reducing risk that enable them to act with relative confidence and efficiency in conditions where they have inadequate information and incalculable consequences. He contends that brands are devices for reducing the risks of consumer decisions. Importantly, he concedes that risk taking is not the only factor involved in consumer purchasing behavior. Rather, he asserts that risk is a common thread worthy of in depth study when considering purchase decision processes. Bettman (1973) studied the notions of inherent and handled risk. Inherent risk refers to a person's risk disposition towards a certain product category. Handled risk refers to the level of risk engendered by the employment of a specific product in a certain category. Both concepts are considered to be important in B2B contexts (Mitchell 1998).

Organizational buying behavior has been suggested to be almost entirely a function of risk (Newall 1977). In this context, perceived risk refers to the perception of the uncertainty and adverse consequences of buying a product (Dowling and Staelin 1994; Heilman, Bowman and Wright 2000). Puto, Patton, and King (1985) add that perceived risk refers to the uncertainty as well as "severity" of the consequences with the decision. Hawes and Barnhouse (1987) define perceived risk as the anxiety or stress that is recognized by individuals who are involved in making the buying decision. Collectively, scholars conceptualize perceived risk within organizational settings as both the risk to the organization due to possible performance outcomes, as well as the risk to the individual buyer.

Any purchase involves uncertainty about the outcome and uncertainty about the consequences to the company and purchasing agent (Newall 1977). Buying top brands from reputable companies is considered to be one way to handle and reduce the risk of the unknown. Moreover, brands have been suggested to provide signals about particular product and service offerings – signals that can be interpreted in terms of risk reduction (Mudambi et al. 1997).

Sheth and Venkatesan (1968) applied risk-taking theory in consumer decision-making. They suggest that consumers decide to buy a product under some degree of uncertainty about a given brand. Consumers attempt to reduce the perceived risk of an unsatisfactory purchase by relying on some person or idea, including the idea of the brand image of a particular product. They identify three key ways consumers reduce the risk dimension of uncertainty: 1) seeking information from informal, personal, and buyer-oriented sources; 2) deliberating pre-purchase about alternative brands; and, 3) relying on brand image. They hypothesized that by relying on brand image as part of their risk reduction process, consumers will manifest brand loyalty.

Mitchell (1995) provides a comprehensive review of risk and factors that affect the perception of risk, along with various risk reducing strategies used in organizational settings. He notes that research has suggested that supplier choice is influenced by the amount and type of risk in the purchase situation (Cordozo 1968; Robinson et al. 1967). Kim et al. (1998) suggest that the level of perceived risk has been shown to impact the purchasing decision, and a number of studies have documented how buyers reduce risk

(Puto et al. 1986). Kim and his colleagues (1998) propose that the perceived risk associated with a buyer's purchase should moderate the relationship between brand equity and the purchase decision.

There is empirical support for a wide variety of variables that influence the risk perception of industrial buyers (Mitchell 1995). These include buyer demographics, job function, the decision-making unit, personality, buy-type, product characteristics, degree of customer-supplier interaction, characteristics of the customer-supplier market, company size, the organization's performance, and country of origin. Perceived risk has a potentially strong impact on organizational buying decisions. For example, buyers who tend to be risk avoiders may place more importance on technical attributes (Lehmann and O'Shaughnessy 1974). Hawes and Barnhouse (1987) suggest that perceived risk is the anxiety or stress faced by purchasing agents. When perceived risk is high, purchasing agents attempt to postpone the buying decision, thereby prolonging personal stress but impeding the progress of both the buying and selling organization.

To manage their level of perceived risk, buyers seek to make available information consistent with their prior knowledge and expectations by systematically distorting it (Mitchell 1995). Hawes and Barnhouse (1987) studied the tactics most important for reducing risk including, visiting the operations of the potential vendor, questioning present customers of the vendor, multi-sourcing, and requiring contractual protections. Newall (1977) ranked risk reducing strategies. Limiting the search and ultimate choice of a potential vendor to only well-known vendors ranked eighth. The theory and implications of the aforementioned studies point to perceived risk as an underlying framework in organizational buying behavior literature, and one that is particularly applicable to studies related to branding in such settings.

Brand Sensitivity and Perceived Risk.

Several studies have attempted to measure the brand equity construct. These studies tend to be based on measures of brand loyalty, brand awareness, perceived quality, brand associations (e.g., Aaker 1991) or brand knowledge (e.g., Keller 1993), and they tend to be consumer-based (e.g., Yoo and Donthu 2001). Few researchers have attempted to measure one's sensitivity to a brand, particularly in B2B contexts. As noted earlier, Kapferer and Laurent (1988) introduced the brand sensitivity construct in a study comparing national brands with unbranded or private label brands. Their purpose was to understand how consumers' varied their perceptions of brand importance as they shopped different categories.

In his qualitative study of organizational buying, Hutton (1997) operationalized brand sensitivity as the likelihood of buying a well-known brand instead of an unknown or generic brand of product, based on differences in product and situational variables. He hypothesized that organizational buyers tend to seek well-known brands under a variety of conditions. These conditions include situations where the buyer is personally interested in the product category, the product is novel or complex, the product's failure to function properly will create serious problems for the buyer's organization or the buyer him/herself, and the buyer is faced with time or resource constraints that limit the gathering and processing of information about the product or the evaluation of alternatives. We have selected brand sensitivity as our focal construct because it appears to be central to the understanding of organizational buying and seems to hold promise as a managerial guide.

Hutton (1997) found support for buyers selecting well-known brands when the risk of failure would have dire consequences on the buyer or his/her organization. He contends that the risk of organizational failure is a stronger motivator than personal failure, but the risk of personal failure predicts actual brand choice. Product complexity, novelty, and time parameters were also found to be important factors. Hutton (1997) suggests that certain types of variables affect a buyer's propensity to buy branded products, and provides additional support for the importance of perceived risk in organizational buying.

Subsequent studies have found that the perceived risk associated with a brand increases information costs (Erdem and Swait 1998). Additionally, consumer learning and perceived risk, as well as consumer attitude toward risk, quality, and price, play an important role in consumers' store-brand and national-brand choices and contribute to the differences in relative success of store brands (Erdem, Zhao and Valenzuela 2004).

The preceding discussion points to brand sensitivity as an important construct in organizational buying settings. It may be particularly relevant because of the role of perceived risk in organizational buying and the role brands play in reducing perceived risk in certain buying environments. Yet, with the exception of Hutton's (1997) research, business marketing researchers have been slow to study brand sensitivity. An intriguing, related question is whether brand sensitivity can be effective as an individual-level construct and a group-level construct. In organizational settings, brand sensitivity appears to be more than just an innate characteristic. A group-level dynamic is likely to occur because of the effects that buying conditions may play on the buying center's collective sensitivity towards well-established brands as a means of reducing uncertainty.

A Conceptual Model of the Determinants of Brand Sensitivity

Based on the principles of risk theory and supported by extant consumer and organizational buying literature, we propose the following conceptual model of the determinants of brand sensitivity in business markets (Figure 2). The model posits that buying center variables, purchase situation variables and product/relationship variables are expected to lead directly to brand sensitivity. Individual risk attitude is expected to moderate the relationship between the independent variables and brand sensitivity.

The Buying Center and Brand Sensitivity.

Mudambi (2002) examined to whom branding is important and in what situations. She noted that organizational buyers are distinct in what they perceive as important, the decision processes they follow, and the purchases that they make. Through depth interviews and a cluster analysis, she identified three categories of firms (highly tangible, branding receptive, and low-interest), three types of buyers (low interest/indifferent, traditional, and sophisticated), three types of purchase situations (routine, typical, and highly important), and three types of decision processes (convenience, structured, and formal). The implication of this finding is that organizational buyers and buying conditions will determine the circumstances where brand reputation will be a factor in a purchase decision. Organizational buyers are likely to be brand sensitive and select well-known brands under certain conditions, particularly when the risks of organizational or personal consequences are high (Hutton 1997). Furthermore, when high levels of risk are perceived, there tends to be a propensity to "group buy" or share the risk of the particular purchase (Mitchell 1995).

Hunter, Bunn and Perrault. (2006) sought to evaluate the simultaneous interrelationships between different aspects of the overall organizational buying process. They hypothesized that procedural control played a key role. Procedural control refers to the extent to which established policies, procedures, or transaction precedents guide purchase evaluation. Similar to "decision rules" (Johnston and Lewin 1994), procedural control may include formal mechanisms, including procedure manuals and approved supplier list requirements, or informal mechanisms, such as rules-of-thumb guidelines.

Valla (1982) suggests that the characteristics of the buying center (e.g., the number of people, nature of the decision-making process, and interpersonal relationships) are determinants of the level of perceived risk. Highly structured purchase procedures can offset high levels of psychosocial risk (Newall 1977). Just as the structural characteristics of an organization are expected to influence its market orientation (Kohli and Jaworski 1990), we would expect such characteristics to influence its brand orientation. More specifically, those buying centers that have established procedures in place are expected to sense less risk and follow stated or unstated decision-making protocol, resulting in a reduced level of brand sensitivity relative to more informal buying centers.

H1. A buying center's level of procedural control will directly impact its level of brand sensitivity. More specifically, procedural control will have a negative affect on brand sensitive.

There is a level of implied conflict between the different departmental representatives of the buying center due to divergent goals and expectations, as well as different perceptions of the facts due to varied backgrounds, and company policies that reward functional expertise (Sheth 1973). Borrowing from Katz and Kahn (1978, p. 613), Barclay (1991) defines this interdepartmental conflict as "the collision of actors." More precisely, interdepartmental conflict refers to the tension between one or more departments that arises from incompatibility of actual or desired responses, likely due to either the aspirations of individual departments to be perceived as important or due to the inherent charters of the various departments (Kohli and Jaworski 1990). Barclay (1991) found that organizational characteristics such as poor communication, incongruent reward systems, and ambiguous departmental responsibilities explain a substantial portion of the variance in the manifestations of buying-related conflict. Indeed, it is established practice for organizations to reward individuals for specialized performance within their particular department or functional group (Mitchell 1995).

Barclay (1991) assumes that the behavior of buying center members in conflict is essentially role behavior; behavior reflects the roles of the respective departments. Literature has described the relationship between the purchasing and engineering functions as the most contentious in buying decisions (Barclay 1991). This tension is likely due to the conflicting objectives and reward systems of each department. Simplistically, the goal of the purchasing representative is to minimize costs, while the goal of the engineering representative is to maximize quality and performance. We contend that it is these often extreme perspectives that influence the buying center's level of brand sensitivity. Specifically, if a functional area driven by quality dominates the decision-making process, the buying center will demonstrate increased levels of brand sensitivity. In contrast, if a functional area driven by cost dominates the decision-making process, the buying center will demonstrate reduced levels of brand sensitivity.

H2. Departmental objectives will directly influence a buying center's level of brand sensitivity. More specifically, dominant functional areas that are quality-oriented will be more brand sensitive than dominant functional areas that are cost-oriented.

Purchase Situation Variables and Brand Sensitivity.

The relationship between purchase situation variables and risk has been widely studied in organizational buying literature. Johnston and Lewin (1994) suggest that risk varies between high and low levels depending on the importance, complexity, and novelty of the purchase. These purchase variables are considered to be powerful determinants of a buying center's decision-making process (Johnston and Bonoma 1981).

Product importance is the buying center's perception of the financial and strategic impact of the product purchase as it relates to business objectives (Cannon and Perrault 1999). Levels of purchase importance are likely to affect a buying center's brand sensitivity because of the resulting variations in the degree of perceived risk (Valla 1982). When considering purchases of strategic products and products that are important to the production process, buyers are likely to be more involved in the purchase. Nevertheless, due to the perceived risk of the purchase, buyers are expected to rely on branded products in these instances.

H3. High levels of purchase importance will positively impact a buying center's level of brand sensitivity.

Complexity may refer to the actual purchase situation and/or the product. In complex purchase situations, buying center members perceive substantial risk and uncertainty (McQuiston 1989). Cannon and Perrault (1999) note that in these instances a buying firm is likely to seek relationships that help reduce ambiguity and risk. Well-established brand names may play an important role in reducing perceived risk in these situations because they serve as cues that signal performance of a supplier or product (Bendixen et al. 2004).

H4. High levels of purchase complexity will positively impact a buying center's level of brand sensitivity.

Product/Relationship Variables and Brand Sensitivity.

Industrial buyers rely on cooperative, long-term relationships with fewer vendors in order to reduce risk and uncertainty (e.g., Achrol, Reve and Stern 1983; Anderson and Narus 1990; Pfeffer 1978). One advantage for suppliers in such cooperative relationships is the likelihood that they will be included in the consideration set when new purchases are proposed. Suppliers that are viewed as more short-term or transactional in nature are likely to face more stringent requirements and a different set of evaluative criteria. Relationship-oriented suppliers are likely to be evaluated on attributes such as trustworthiness, reliability, and corporate credibility, while transaction-oriented suppliers are likely to be evaluated on attributes such as product performance, pricing, and other more tangible criteria (Webster and Keller 2004).

Levitt's (1967) study confirms that the greater the personal risk to the sales prospect, the more persuasion it will take to actually convince him/her to switch from a current product or vendor to a new product or vendor. Moreover, customers tend to demonstrate levels of loyalty to their vendors due to the realization that repeated patronage (as a "regular customer") may be a means of optimizing satisfaction and growing the relationship with the seller (Zeithaml 1981). Thus, we expect that buyers who perceive their vendor relationships as high in quality are likely to purchase additional products from those partners, regardless of the brand equity levels of products promoted by competing bidders. As such, we expect that buyers will be less brand sensitive in situations where they have strong relationships with vendors under consideration.

H5. Buyer-seller relationships that are high in quality will negatively impact an organization's level of brand sensitivity.

Buyers are likely to be influenced by whether they can easily understand and evaluate the functionality of the good being evaluated. Service marketing researchers have tended to differentiate between goods and services based on their levels of intangibility. Based on work by Nelson (1970) and Darby and Karni (1973), Zeithaml (1981) presents one framework for distinguishing differences in consumer evaluation based on their search, experience, and credence qualities. Search qualities are those attributes which a consumer can determine prior to purchasing a product; experience qualities are those attributes that can only be discerned after purchase or consumption (Nelson 1970); and credence qualities are those attributes which the consumer may find impossible to evaluate after purchase and consumption (Darby and Karni 1973). Zeithaml's (1981) framework suggests a continuum for evaluation ranging from goods and services that are easy to evaluate to those that are difficult to evaluate. Her conclusion is that most goods tend to be easier to evaluate than most services, due to several characteristics, including a service's level of intangibility.

While services may tend to be categorized as more intangible than goods, researchers recognize that all products and services possess certain degrees of intangibility (e.g., Bell 1981; Levitt 1981; Shostack 1977). Levitt (1981) encourages academics and practitioners to speak of intangibles and tangibles rather than goods and services. He points out that even giant turbine engines that weigh tons have intangible factors because they will fail or disappoint if installed or used incorrectly. He highlights that a key factor for intangible products such as healthcare, insurance, or computer software is that prospective buyers are generally forced to depend on surrogates or other cues to assess what they are likely to get.

To conceptualize how a market offering can be a hybrid of tangible and intangible qualities, Shostack (1977) suggests categorizations according to levels of "dominance." For example, she argues that airline travel tends to be more intangible-dominant compared to an automobile purchase because of the less physical elements associated with airline travel such as service frequency, pre- and post-flight service, and in-flight service. She implies that the greater the weight of intangible elements in a market entity, the more difficult it will be for a marketer to describe precisely its benefits. Conversely, a buyer will have a more difficult task in evaluating and ultimately selecting such a market offering.

Batra and Sinha (2000) found that consumers buy fewer private label brands if category benefits require actual trial or experience instead of information available on the package label. They imply that a key concern in considering nationally-recognized brands over private label brands is the perceived risk of selecting a low-quality private label brand. This concern appears to directly relate to organizational buying contexts. It is likely that B2B purchases are more intangible-dominant compared to consumer purchases. Most organizational purchases, no matter how mundane, often fall under some contractual agreement or bundle that includes follow up service, some level of guarantee, personal interaction, or various add-ons and amenities. The level of intangibility of the product under consideration is likely to affect the relationship between the buying center and its associated degree of brand sensitivity.

H6. Higher levels of perceived product intangibility will positively impact an organization's level of brand sensitivity.

Individual Risk Attitude.

Some individuals have innately more risk averse attitudes than others. Moreover, there are intrinsic motivational factors associated with risk naturally programmed into one's personality (Shapira 1986). Organizational buying literature has suggested that individual risk minimization or avoidance is a key motivating factor in the industrial buying process (e.g., Puto et al. 1985; Qualls and Puto 1989). Individuals are expected to have varying degrees of risk propensity ranging from risk averse to risk prone. A buying center member who is risk averse is one who has a preference for an alternative whose outcome is known with certainty over one having an equal or more favorable expected value whose outcome is probabilistic (Puto et al. 1985). As has been suggested, brand selection is considered a strategy to reduce perceived risk. We assert that influential buying center members with risk averse/ prone attitudes are likely to moderate the relationship between the hypothesized buying center, purchase situation and product/relationship variables and brand sensitivity.

H7. Individual risk attitude will moderate an organization's level of brand sensitivity. More specifically, individual risk aversion will strengthen the relationship between buying center, purchase situation, and product/relationship variables and an organization's level of brand sensitivity.

The identified variables and relationships are not intended to be exhaustive. Instead, our purpose is to study relevant associations capable of contributing to academic study and managerial practice. From an academic perspective, it provides theoretical support for the study of specific market and conditional antecedents that are likely to affect brand sensitivity in organizational buying contexts. In addressing the determinants of brand sensitivity, this conceptualization has important implications for marketing practitioners. It provides insights into branding and selling strategy for marketers by addressing when it might be most prudent to invest in a brand and how a marketing approach and mix may need to be adapted in order to be effective.

Table 1 summarizes our hypotheses and Table 2 outlines the conditions that suggest when a prospective buying organization is likely or unlikely to be brand sensitive. Since brand cues are not considered to be equally important in all situations, insights concerning the conditions that heighten brand sensitivity allow marketers to strategically execute campaigns that rely on brand-related marketing elements rather than alternative approaches.

To this point, we have established the importance of studying branding in organizational buying contexts. Additionally, we have proposed a model, with risk theory as its unifying framework, of the determinants of brand sensitivity by conceptualizing relationships between buying center, purchase situation, and product/relationship variables, individual risk attitude, and brand sensitivity. In Chapter 3, we will discuss the research design and methodology that will empirically test our hypotheses.

CHAPTER THREE - RESEARCH DESIGN AND METHODOLOGY

The objective of Chapter 3 is to present the research design and methodology that will be utilized to test the proposed conceptual model. It will discuss the scope of the study, the sampling plan, and the measures and measure development procedures.

Overview

There has been limited empirical study of branding in B2B contexts. This study will contribute to the organizational buying stream of literature in the following ways. First, there is a need to define and accurately measure key brand-related constructs. Brand sensitivity appears to be a meaningful construct worthy of study in organizational contexts due to its potential impact on the buying decision process. At present, it has been understudied and primarily considered in consumer settings. We seek to study the brand sensitivity construct as a potentially useful measurement tool as well as the relationship between certain antecedents and brand sensitivity in organizational contexts. Second, we seek to extend efforts to explain and understand the key determinants of brand sensitivity and the role of risk on brand choice in a buying center's decision making process. Specifically, we will focus on the role of buying center, purchase situation, and product/relationship variables as they relate to individual risk attitude and brand sensitivity levels.

The research process utilizes a multi-method design that includes a traditional survey approach and an experimental design. In Phase 1, we will employ structural equations modeling to test the relationships between the buying center, purchase situation, and product/relationship variables and brand sensitivity. Also, it will test the moderating effect of individual risk attitude. Prior to data collection, we will conduct a pretest to ensure measure reliability. In Phase 2, we will employ an experimental design that will manipulate these same variables in a series of three 2x2 experiments. Primary analyses will consist of regression analysis. In addition to the actual experiments, manipulation checks will be conducted to aid in the design of the experiment. Now, we will outline the scope of our study. Then, we will discuss the multi-method procedures in greater detail.

Scope of Study

Our objective is to conduct a comprehensive study that is focused enough to provide a significant level of depth regarding the topics of study and sufficient external validity in order to serve marketing practitioners. To accomplish this balance, we have made six key decisions regarding the scope of study (Table 3).

Product Type.

We intend to study purchasing decisions related to products rather than services because these findings are likely to be most generalizable. We will not study a specific product in Phase 1 however due to the challenge of determining such a product that is considered relevant to a general market of buyers across various industries. Instead, we will ask respondents to reflect on prior product purchases that have been associated with reasonably high levels of risk and uncertainty through manipulation. Due to the nature of the experimental design, we will specify high-speed industrial pumps as the product to be evaluated.

Industry.

One advantage of studying brand sensitivity within a variety of industries is the advantage of external validity and access to a sufficiently large sample. On the other hand, studying a single, specific industry may provide more depth and the possibility of increasing the number of key informant respondents within organizations. Recognizing these trade-offs, we will utilize a multi-sample research design that includes actual purchasing managers and other influential buying center members from a variety of industries as key informants.

Brand Approach.

In B2B contexts, companies are more likely to use a corporate branding or umbrella branding approach rather than a product or ingredient branding approach. Furthermore, buyers tend to evaluate corporate reputation more than product reputation. For this reason, we intend to focus on corporate brands.

Buying Context.

The key informant approach has been widely used and accepted in B2B studies, in spite of its limitations. We intend to utilize a key informant approach because we believe that the multiple sample approach will provide sufficiently comprehensive information. Moreover, the sparseness of B2B branding literature allows for this more exploratory approach. Finally, the combination of the survey approach and experimental design should substantially improve the validity of single key informants.

Purchase Situation.

Purchase situation variables are key factors in organizational buying research. We will study buyer reactions in modified rebuy situations because, unlike new buy or straight rebuy tasks, these involve the necessary balance between demonstrating high risk and buyer autonomy in the purchase decision (Newall 1977).

Purchase Stage.

Extant literature suggests that the information search stage and the supplier selection stage are the stages where brand influence is most applicable. We will study brand sensitivity in the supplier selection stage because understanding the selection process seems to be most relevant to academics and practitioners.

Research Plan

Our research will be conducted in two phases (Table 4). This approach will allow us to utilize the multi-method, multi-sample research plan most effectively. Phase 1 utilizes a survey approach and will be analyzed via SEM. Phase 2 utilizes an experimental design and will be analyzed via regression analysis. Importantly, each phase is capable of testing the hypothesized relationships. The value of the two-stage process is in its ability to offset the limitations of each methodology as a standalone study.

Phase 1: Survey Methodology

Sampling Plan.

We will sample 200-300 buying center members, including purchasing agents, via a "pay-for-input" online panel managed by e-Rewards Market Research, Inc. ("e-Rewards"). We will include only those buying center members who play an influential role in purchasing decisions. Purchasing agents have been frequently studied in B2B research designed to investigate various aspects of organizational buying behavior because of their knowledge and unique perspective. The inclusion of other buying center members should provide a more complete assessment of organizational buying. e-Rewards is a research firm that specializes in the management and maintenance of online customer panels. Member respondents agree to complete surveys in exchange for reward points that are redeemable for different prizes. Controls will be administered to manage the likely presence of professional or otherwise biased respondents within the pay-for input sample.

Measures and Measure Development Procedures.

As outlined in the previous chapter and illustrated in Figure 2, the constructs of interest are: 1) buying center variables, 2) purchase situation variables, 3) product/relationship variables, 4) brand sensitivity, and 5) individual risk attitude. More specifically, the buying center variables are procedural control and departmental objectives, the purchase situation variables are purchase importance and complexity, and the product/relationship variables are relationship quality and intangibility. Multi-item, seven point, Likert-type scales or indexes will be utilized whenever possible. When available, existing measures will be employed and adapted to suit the context of this dissertation.

Brand Sensitivity. Brand sensitivity measures the importance of brands in the decision-making process of a buying act (Lachance et al. 2002). It will be operationalized as the value that a buying center representative places on a well-known brand, instead of an unknown or generic brand of a product offering, in the product evaluation process. We will attempt to capture brand sensitivity levels in two ways. Brand sensitivity 1 will apply an adapted version of Kapferer and Laurent's (1988) eight-item scale that is appropriate for a group/buying team context. A confounding matter may be the fact that the original scale was developed within a consumer context and conceptualized as a unidimensional scale. As previously discussed, brand sensitivity in B2B contexts may need to be re-conceptualized in order to take into consideration group influences and situational variables. As such, we will adapt the scale and conduct pre-testing as is appropriate. Any significant adaptations will follow established guidelines (e.g., Anderson and Gerbing 1988; Churchill 1979).

Brand sensitivity 2 will utilize a constant sum approach. Respondents will be asked to rate the importance of brand name relative to five other purchase evaluation characteristics identified as related to the multi-dimensionality of brands in B2B contexts: price, logistics and distribution, functionality, support services, and technology used (McQuiston 2004; Mudambi et al. 1997; Mudambi 2002). Thus, we will capture brand sensitivity levels through an objective scale (brand sensitivity 1) and through a more subjective ratings approach (brand sensitivity 2).

Buying Center Variables. Hunter et al. (2006) define *procedural control* as the extent to which a purchase evaluation is guided by formal policies and procedures, or more informal institutional norms. They utilized a 4-item scale and reported a Cronbach's alpha of 0.79. *Departmental objectives* refer to the stated or implied goals, expectations and objectives of a department. Interdepartmental conflict occurs when there is an incompatibility of actual or desired responses, likely due to the inherent charters of various departments (Kohli and Jaworski 1990). The relationship between the purchasing and engineering functions has generally been considered to be the most contentious in buying decisions, due to conflicting objectives and reward systems (Barclay 1991). We will operationalize departmental objectives by measuring respondents' perceptions of their departments as "quality-dominant" versus "cost-dominant." Quality-dominant and cost-dominant will be operationalized based on responses to questions regarding respondents' perceived reward systems. For example, on a 7-point interval scale, respondents will be asked to rate whether their departmental bonus or incentive structure is based on 1 (cost-savings) or 7 (quality standards).

Purchase Situation Variables. McQuiston's (1989) findings concerning the effects of purchase importance, complexity, and novelty on organizational decision-making have been widely accepted. As previously discussed, our scope will be limited to modified rebuy purchase situations. Therefore, purchase novelty is not relevant in our study. Cannon and Perrault (1999) studied purchase importance and complexity as they apply to buyer-seller relationships in business markets. We intend to apply their measurement scales to our study. *Purchase importance* measures the perceived impact of the purchase on organizational profitability and productivity. They developed a 4-item semantic differential scale and reported a reliability of 0.85. *Complexity* refers to how much information the organization must gather to make an accurate evaluation of the product. Again, they developed a 4-item semantic differential scale and reported a reliability of 0.88.

Product/Relationship Variables. Relationship quality refers to the quality of the relationship between both parties. Relationship quality is conceptualized as the combination of trust, satisfaction, and commitment dimensions. Smith (1998) and Verhoef, Frances, and Hoekstra (2002) developed reliable multi-item scales that measure these concepts. McDougall and Snetsinger (1990) define *level of intangibility* as the degree to which a product can be visualized and provide a clear, concrete image prior to purchase. By considering a product's class, manufacturer, brand, and competing segments, they developed a 9-item level of tangibility scale (α=.91). Laroche, Begeron, and Goutaland (2001) showed that intangibility is a three-dimensional construct comprised of general, mental, and physical intangibility. They define these dimensions as follows. General intangibility refers to how general and/or specific a consumer perceives a particular product. Mental intangibility reflects the fact that a good can be physically tangible, but difficult to grasp mentally. And, physical intangibility represents the extent that a good cannot be touched or seen. We will apply the intangibility scale developed and validated by Laroche et al. (2001).

Moderating Variables. Even in similar situations, individuals have different perceptions of risk. Moreover, various personality variables affect these perceptions (Conchar, Zinkhan, Peters, and Olavarrieta 2004). *Individual risk attitude* is one's predisposition or attitude towards taking risks. Risk-taking propensity refers to an individual's willingness to make a risky choice when faced with a specific decision situation (Conchar et al. 2004). Generally, this construct has been measured using Kogan and Wallach's (1964) Choice Dilemma Questionnaire. This procedure, however, is time prohibitive and cumbersome as it encompasses a variety of scenarios involving probability scoring. The authors state that "administration of the entire battery of procedures [for the original study] required approximately five hours (p. 21)." We will measure individual risk attitude with the multi-item, Likert scale (α=.77) used by Donthu and Gilliland (1996) and Donthu and Garcia (1999).

Perceived risk refers to the anxiety or stress that is recognized by the individuals who are involved in making the buying decision (Huber and Puto 1985). The operationalization of perceived risk has been somewhat controversial due, in part, to two distinct approaches to its measurement (Conchar et al. 2004). One approach assess the riskiness of a given statement or situation without separating probabilities and consequences. The other approach involves measuring a probability component and a consequences component. Risk has also been measured by using experimental research designs. Puto et al. (1985) designed an experiment using a written scenario describing a hypothetical modified rebuy procurement situation between two vendors, and then operationalized risk factors by asking which vendor would respondents choose. Qualls and Puto (1989) conducted a field experiment consisting of 12 hypothetical purchase decisions by purchasing agents. In this case, they applied a scale developed by Huber and Puto (1985).

Mudambi (2002) measured perceived risk using a multi-item scale (α=.85) in her study of branding importance in B2B markets. DelVecchio and Smith (2005) measured perceived performance (α=0.75), financial (α=0.85), and social risk (α=0.81) utilizing multi-item scales in their study of perceived risk as it relates to brand extensions. We adapted these scales to measure perceived risk.

Method of Analysis.

Phase 1 analysis will utilize SEM. One concern with this research approach is the potential for common methods variance effects, due to the same respondents answering questions related to the independent variables and the dependent variable. However, significant effects may be controlled in a variety of ways, including obtaining measures of the predictor and criterion variables from different sources, as well as instituting psychological or methodological separation (e.g., different response formats or different media) (Podsakoff et al. 2003). The multi-method, multi-sample approach should alleviate common methods bias concerns. By utilizing multiple methods, multiple samples, and various other procedural remedies, we believe that we can manage the potential adverse effects of self-report responses. As Podsakoff et al. (1986) note, despite problems of self-reports in organizational research, the practical utility of these types of measures makes them virtually indispensable in many research contexts.

Phase 2: Experimental Design

Phase 2 utilizes an experimental design. Regression analyses will be used in a series of three 2x2 experiments as a means of predicting the brand sensitivity dependent variable, based on a number of manipulations of the independent variables (i.e., high/low procedural control, high/low purchase importance, high/low levels of product intangibility). Since risk is a critical underlying variable in the framework, we can capture its effects by testing for the moderating effects of individual risk attitude.

Sampling Plan.

Respondents will be buying center members, including purchasing managers, who are members of the e-Rewards business panel. We well ensure that no panelist participates in both the survey and experiment phases. There will be between 25 and 30 respondents per cell in each of the three experiments.

Manipulations and Measures.

We will conduct three experiments designed to manipulate buying center, purchase situation, and product/relationship variables, respectively. For each experiment, respondents will be randomly assigned to one of four cells. Each cell will involve a unique scenario (e.g., a high importance/low complexity purchase situation). Brand sensitivity 1 will be operationalized via an adaptation of Kapferer and Laurent's (1988) brand sensitivity scale and brand sensitivity 2 will require respondents to weigh the importance of brand relative to five other attributes via a constant sum exercise. Individual risk attitude will be a moderator and captured based on established instruments (i.e., Donthu and Gilliland 1996; Donthu and Garcia 1999).

The following is an example of what the research procedure will entail. A subject taking Experiment 2: Purchase Situation Variables will be randomly assigned to a high importance/high complexity cell. The research procedure will consist of the subject reading a scenario designed to put him/her in the mindset of a buying center member involved with a highly important/highly complex purchase or an industrial component. Specifically, the stimuli will state that unlike other similar industrial component purchases, this particular component is more technologically advanced and is strategically critical. The respondent will answer a number of manipulation check questions, followed by measures of brand sensitivity 1 and brand sensitivity 2. Additionally, he/she will respond to measures of individual risk attitude and perceived risk, followed by various demographic and background questions. A similar approach would be applied to Experiment 1 (buying center variables) and Experiment 3 (product/relationship variables).

Method of Analysis.

To establish construct validity, we will pretest all manipulations and variables prior to the development and execution of the final experiment. Once data collection is completed, we will analyze our results primarily via regression analysis, with the risk variables serving as moderators.

The advantage of the Phase 2 research design is that it minimizes issues with common methods bias when complemented with Phase 1. Furthermore, it is likely to result in increased internal validity, due to its more controlled nature, and therefore allows for more definitive statements about the causal relationships proposed by the model. The combination of the survey design and experimental design, or two-phased research design, allows us to address our research objectives regarding determinants of brand sensitivity, the roles of individual risk attitude and perceived risk, and the validity of the brand sensitivity scales with a greater level of confidence.

This chapter has discussed the methodological framework that we will use to test the proposed conceptual model. Additionally, we discussed the analyses that will be performed on the collected data. The next chapter will discuss our results and key findings.

CHAPTER FOUR - DATA COLLECTION AND ANALYSIS

This chapter describes data collection procedures, analyses, and results of the two phases of analyses. Phase 1 involved a survey methodology and Phase 2 involved and experimental design.

Phase 1: Survey Methodology

We conducted depth interviews with 16 practitioners who are considered business market experts. These individuals represented a variety of industries, companies and roles. The objective of this stage was to gain real-world insight on the research topic, as well as a pragmatic view of the research process. For instance, respondents were asked to evaluate survey items, and the wording and formatting of the survey.

Upon completion of the depth interviews, we summarized their key findings and integrated them into the final instruments to the extent possible. Ultimately, we were able to better understand the organizational buying process and the roles that brands play in the process. For example, the survey scenario that respondents were asked to react to was improved. We defined "product" more clearly, refined several of the scales, including the brand sensitivity scales, and identified potential moderating variables for future study.

Pre-Test

Upon completion of the depth interview stage, we conducted a pre-test. The primary objectives of the pre-test were to further refine our measures and to validate the online business panel data collection process and sample. We targeted 50-100 business managers. e-Rewards forwarded invitations to participate in the online survey to members of its business panel. Panelists were limited to individuals who described their current functional role as procurement and B2B managers who were decision-makers and/or influencers in purchasing raw materials/components at their respective companies. Participants were required to be mid-level or senior executive managers.

Due to its length and complexity, we determined that it was unlikely that a respondent could reasonably complete the survey in less than eight minutes. Of the 136 who completed the survey, 34 were eliminated for this reason reducing our final sample to 102.

Analysis of the demographic and background characteristics of the business panel sample suggests that we effectively reached our target (Table 5). The sample was within the age and education ranges that we would expect for manager-level employees in this context and their titles were indicative of the manager level and up requirement. Additionally, respondents demonstrated sufficient variance in terms of company tenure, and purchase and product experience. Consistent with the U.S. economy, most respondents (45.5%) indicated that they worked in a services industry. Forty-eight percent of respondents indicated that they worked in a company with 1-199 employees. This finding resulted in an effort to collect more precise data on small-to-medium sized companies. The final survey (Appendix A) inquired about company size based on number of employees and estimated dollar sales. Company size based on number of employees was split as follows: 1-9, 10-19, 20-99, 100-249, 250-999, 10000-4999, and more than 5000 employees. The pre-test and final samples shared similar demographic and background statistics (Table 6).

The results of the pre-test suggested that our measures would be appropriate for our main study. Specifically, Cronbach alpha scores were consistent with those previously reported in literature and exceeded recommended thresholds (Table 7). Several items did raise concerns due to low inter-item correlation scores. These were subsequently revised to ensure clarity and consistency. Importantly, the alpha for our brand sensitivity construct was 0.90.

Main Study: Measurement Model Validation Procedures

Our research design for the main study was similar to that of the pre-test. We used the same target criteria (i.e., business managers in a procurement role or who play a decision-making or influencing role in purchasing raw materials/components). To manage response bias, e-Rewards staggered online invitations to its business panel over a 10 day period.

We received 331 questionnaires. We discarded 17 because of excessive missing data or due to obvious answer patterns. In addition, we restricted the final sample to only those respondents who completed the survey within 1.0 standard deviation of the mean minutes-to-complete (i.e., approximately 18 minutes). Eighty-seven percent of respondents completed the survey within the range of five to 32 minutes. Thus, our final sample consisted of 273 respondents.

To determine whether items should be included in or discarded from our final analysis, we assessed each measure's Cronbach's alpha and inter-item correlations. In virtually every case, our final reliability scores based on our restricted sample exceeded those reported in extant literature, our pre-test, and those based on our less-restricted sample of 314 respondents (Table 8). Table 10 reports measurement item descriptives.

To verify unidimensionality, we utilized confirmatory factor analysis procedures via LISREL 8.7. We divided the set of scales into three subgroups based on our focal theoretical variables and established guidelines (Bagozzi and Edwards 1998). We evaluated each factor model by using a combination of fit indices (Table 9). Overall, our measures performed well and suggested an adequate fit, based on chi-square, CFI and SRMR scores, as well as significant path coefficients (Table 11) (Anderson and Gerbing 1988; Hu and Bentler 1999). RMSEA scores indicated potential issues in some cases, but this was likely due to expected high correlations between items (i.e., intangibility and relationship quality items). We deleted several items due to low loadings, t-values or modification indices, but determined that deleting the items did not compromise the conceptual nature of each construct. Additionally, the variance explained for each item, as indicated by its SMC score, are high with few exceptions (Table 11).

To further verify measurement model fit, we evaluated the average variance extracted and composite reliabilities of each factor (Fornell and Larcker 1981). Each construct substantially exceeded recommended parameters (Table 12). Average variance extracted percentages ranged between 65% and 84%, and composite reliabilities ranged between 0.84 and 0.95. Guidelines suggest that the variance extracted and composite reliability scores for a construct are acceptable at the .50 and .70 thresholds, respectively (Hair et al. 1998).

Initially, there was some concern about the use of the brand sensitivity construct. This was due to the fact that it had been used primarily in consumer contexts and as a measure of an individual's personal profile. Our business context requires brand sensitivity to apply to an organizational context and specifically as a measure of a buying group's characteristic. Accordingly, we measured brand sensitivity in two ways: (1) brand sensitivity 1 adapted an established Likert-type scale (Kapferer and Laurent 1988; Lachance et al. 2002), and (2) brand sensitivity 2 utilized a constant-sum approach. The measurement model results suggest that our adaptation of the brand sensitivity 1 scale is acceptable. Nevertheless, an assessment of the two approaches suggests that both may be appropriate measures of an organizations propensity to select branded versus non-branded/lesser-known products since both constructs were significantly correlated at the 0.01 level.

Main Study: Structural Model Validation Procedures

We estimated the hypothesized structural model using LISREL 8.7. First, we tested our original model as a fully disaggregated model and without the influence of individual risk as a moderating variable. That is, the factors of relationship quality (i.e., trust, satisfaction, and commitment) were represented individually (Figure 3). We then tested the model as a partially disaggregated model (Figure 4). In this case, trust, satisfaction, and commitment were combined (i.e., averaged) to represent one construct, "relationship quality. Specifically, items for each dimension were averaged to create summary indicators, consistent with the direction of Bagozzi and Edwards (1998).

The results of the fully disaggregated model suggest that the hypothesized model fits the data reasonably well (Table 13). The χ^2 is 2169.22 with 743 degrees of freedom (p=0.0; SRMR=0.063; CFI=0.95; RMSEA=0.088). The significant p-value was expected due to the sufficiently large sample size. Importantly, its relevant fit indices meet Hu and Bentler's (1999) combinatorial rule for acceptable model fit. In spite of the model's fit, parameter estimates were not consistent with hypothesized expectations. Only the intangibility-brand sensitivity path is significant (0.77). This result is supportive of hypothesis 6, where a higher level of perceived product intangibility was expected to positively impact an organization's level of brand sensitivity. Table 13 presents the resulting fit indexes, standardized parameter estimates, standard errors, t-values, and significance levels.

The results of the partially disaggregated model suggest an improved model fit, compared with the fully disaggregated model, but similar path estimate results. The χ^2 is 610.80 with 254 degrees of freedom (p=0.0; SRMR=0.0.49; CFI=0.96; RMSEA=0.075). Again, its relevant fit indices meet Hu and Bentler's (1999) combinatorial rule for acceptable model fit. The only significant direct relationship path is intangibility→brand sensitivity (0.86). Both models appear to explain a substantial portion of brand sensitivity variance (SMC=.24). In Table 14, we present the resulting fit indexes, standardized parameter estimates, standard errors, t-values, and significance levels. Due to the improved model fit of the partially disaggregated model or main model and the fact that it is more parsimonious, we continued our analyses by testing for moderating effects and potential alternative models.

Moderating Effects of Individual Risk Attitude

The relationship between the hypothesized independent variables and brand sensitivity may vary depending on the influence of individual risk attitude on influential buying team members. Specifically, we hypothesized that individual risk attitude would strengthen a buying team's brand sensitivity.

To test for the moderating effects of individual risk attitude on the antecedent variables and brand sensitivity, we employed the nested goodness-of-fit strategy suggested by Jaccard and Wan (1996). This strategy uses a two-step approach. The first step requires the generation of a multi-group solution of an unconstrained model to get a perspective on the overall model's fit. The second step requires the re-estimation of the model but with imposed equality constraints on the solution. The fit of the unconstrained model (i.e., coefficients unconstrained to be equal) is then compared with a second, constrained model (i.e., coefficients constrained to be equal). Based on a series of chi-square difference tests, the models are compared to determine significance. Significant chi-square changes indicate the presence of interaction effects. Using a sample median split of the individual risk attitude measure, we created two groups: a high risk group and a low risk group. We then constrained the coefficients of each independent variable in the high and low risk groups to be equal. We determined significance by conducting chi-square difference tests between the constrained models and the unconstrained model. There was no indication of a significant moderating effect of individual risk attitude on the hypothesized paths.

Alternative Model: Moderating Effects of Perceived Risk

Alternatively, the relationship between the hypothesized independent variables and brand sensitivity may vary depending on the presence of perceived risk by the buying team. Specifically, we tested whether perceived risk would strengthen a buying team's brand sensitivity level by using a similar approach.

The test of our unconstrained model suggests a reasonably good fit and a chi-square score of 885.42 (df = 508). The value of SRMR was 0.074 and the values of CFI and RMSEA were 0.95 and 0.07, respectively. When procedural control, departmental objectives, and relationship quality are constrained to be equal in both groups, the difference between the high risk group that and the low risk group approaches significance (at the more liberal $p<.10$ level). This intimates that perceived risk may have some effect on brand sensitivity levels as would be expected. Thus, there is some directional support for the hypothesized effect of perceived risk as it relates to an organizations' brand sensitivity level.

Alternative Model: Mediating Effects of Perceived Risk

Extant literature supports an alternative model that includes intangibility and various buying center variables as antecedents to perceived risk. Miller and Foust (2003) found that intangibility challenges consumers' ability to evaluate services and therefore increases their perceived risk. Laroche et al. (2004) examined the effects of intangibility on various types of perceived risk, including financial risk, performance risk, and social risk, by contrasting various goods and services. They found empirical support for significant relationships between dimensions of intangibility (i.e., mental and general) and perceived risk. Valla

(1982) suggested that certain buying center characteristics directly influence perceived risk. As a result of these theoretically- and empirically-based findings, we developed an alternative model that suggests that perceived risk mediates the relationship between our original independent variables and brand sensitivity (Figure 5).

Table 15 shows the results of this alternative model. The model demonstrates a good fit. The χ^2 is 758.98 with 354 degrees of freedom (p=0.0), and its relevant fit indices meet established benchmarks (i.e., SRMR=0.0.52; CFI=0.96; RMSEA=0.065). Several path relationships are worth noting. Although not originally hypothesized, procedural control and complexity positively affected perceived risk. Additionally, the dominant relationship between intangibility and brand sensitivity was reinforced. Furthermore, the model explains a substantial portion of variance as indicated by the relatively high SMC scores for perceived risk (0.34) and brand sensitivity (0.23). Nevertheless, there was no indication that perceived risk affects the relationship between our independent variables and brand sensitivity.

Summary of Phase 1: Survey Findings

Our analyses reveal several key findings. First, the model of the determinants of brand sensitivity in organizational settings appears to be a good representation of the key relationships involving branding in B2B settings, certainly at this exploratory phase of academic study. Results of the structural equations modeling analyses indicate sound measures, significant proportions of explained variance, and an overall goodness-of-fit that suggests consistency between the hypothesized model and the data.

Based on those results, the key finding is that intangibility appears to be the dominant determinant of brand sensitivity. As enlightening is the apparent lack of any other statistically significant relationship. Theory and extant literature suggest that the hypothesized variables directly affect brand sensitivity, but these relationships were not evident in the current study. The study fails to confirm the role of individual risk attitude as a personal characteristic that influences brand sensitivity. Finally, a noteworthy finding is the intimation that perceived risk may moderate the relationship between the theorized variables and brand sensitivity.

Phase 2: Experimental Design

There were several objectives of the experimental phase of our study, including maximizing the validity of the overall study. In particular, we sought to replicate the findings of Phase 1 while gaining additional understanding of and a broader perspective on the effects of our independent variables on brand sensitivity. Hence, we were particularly interested in the role of individual risk attitude and perceived risk on those relationships, and the seemingly dominant relationship between intangibility and brand sensitivity.

The experimental design consisted of a series of three 2x2 between-subjects factorial experiments, with individual risk attitude and perceived risk as moderators. Cells differed based on the independent variables that were manipulated to create perceptions of high, neutral, or low perceived risk. We hypothesized that individuals who had risk averse attitudes would demonstrate higher levels of brand sensitivity.

The data collection process was similar to that of the survey. That is, we targeted high-level managers who were a part of e-Rewards' business panel. Panelists were limited to individuals who described their current functional role at work as "procurement" and B2B managers who were decision-makers and/or influencers in purchasing raw materials/components at their respective companies.

The experimental stimuli consisted of 12 hypothetical, modified rebuy purchase scenarios (Appendix B). The scenarios were adapted from a study conducted by Henthorne and LaTour (1992) that focused on the role of interorganizational and intraorganizational informal influences on the organizational buyer's level of perceived risk in a purchase situation. Each scenario represented a cell. A basic scenario was drafted and subsequently altered based on our intended manipulations. Respondents were asked to play the role of a key decision-maker on a buying team charged with evaluating and recommending the purchase of an order of high-speed, industrial pumps. After reading a scenario, respondents answered a series of questions, including measures of brand sensitivity, individual risk attitude, and perceived risk.

Our independent variables were theoretically grouped into three categories and analyzed via three separate experiments. Experiment 1 consisted of the buying center variables (procedural control and departmental objectives). Experiment 2 consisted of the purchase situation variables (importance and complexity). And, Experiment 3 consisted of the product/relationship variables (relationship quality and intangibility). Subsequently, the 12 scenarios consisted of the two attributes in each respective category: procedural control and departmental objectives (buying center variables), importance and complexity (purchase situation variables), and relationship quality and intangibility (product/relationship variables).

Manipulation Checks.

A pretest indicated that the manipulations were successful. A panel of 58 B2B managers completed an online survey consisting of the six most extreme scenarios (e.g., high importance/high complexity and low importance/low complexity), including their manipulated independent variables. To avoid bias, the B2B managers were randomly assigned to three cells each. Thus, each scenario and its appropriate questions were completed by between 25-30 managers. The six scenarios attempted to capture extreme levels (i.e., high and low) of risk and brand sensitivity; no neutral scenarios were included in the pretest. Following each scenario, respondents answered the 7-item scales used to measure each construct in Phase 1, with some minor modifications for context. Cronbach's alpha scores indicated that each measure was reliable; scores ranged between 0.79 and 0.97. Additionally, they answered questions related to how realistic and risky the scenarios appeared to be. T-tests indicated that the scenarios designed to manipulate each independent variable in order to produce high versus low perceptions of risk were successful, with the exception of the departmental objectives variable. We revised the procedural control/departmental objectives scenario and retested it with working professionals (i.e., part-time MBA students) (n=12) and again with another convenient sample of working professionals and marketing professors/Ph.D. students (n=12) before we determined that the departmental objectives manipulation indeed was successful. The scenarios were determined to be somewhat risky based on the mean scores of the manipulation check; scores ranged between 4.5 and 4.9.

One hundred and twenty-one respondents participated in the final experimental design phase of the study. On average, participants took just under 12 minutes to complete the final experiment, including three of the 12 scenarios and their associated questions, including demographic and background information. We included only the responses of those who completed the survey within 1.0 standard deviation of the mean, or between approximately 5 and 19 minutes.

The results of the final experiment indicated that manipulations of five of the six independent variables worked sufficiently. Participants indicated significant differences between the high versus low cells as follows: procedural control ($M = 5.09$ vs. 2.96, $p = 0.00$), importance ($M = 5.29$ vs. 2.90, $p = 0.00$), complexity ($M = 4.96$ vs. 2.65, $p = 0.00$), relationship quality ($M = 5.88$ vs. 4.06, $p = 0.00$), and intangibility ($M = 5.76$ vs. 2.84, $p = 0.00$). The departmental objectives manipulation did not result in a statistically significant difference between those assigned to the high versus low cell (5.57 vs. 5.09, $p = 0.147$). As a result, we were not able to complete experiment 1 which sought to test the effects of buying center variables (i.e., procedural control and departmental objectives) on brand sensitivity. Finally, we did not include the responses of those who clearly misinterpreted the manipulations intended for experiments 2 and 3. The final samples were $n = 93$ and $n = 94$, respectively. The samples demonstrated similar demographic characteristics (Table 16) as those business managers that participated in the survey phase of this study.

Each construct of interest demonstrated a sufficiently high reliability. For experiment 2, the Cronbach's alphas for brand sensitivity, individual risk attitude, and perceived risk were 0.94, 0.89, and 0.80, respectively. For experiment 3, the Cronbach's alphas for brand sensitivity, individual risk attitude, and perceived risk were .94, .95, and .79, respectively.

Hypotheses Tests

The results of the experimental design generally are consistent with those of the survey design (Table 17 and 18). Importantly, the more controlled research environment uncovered several additional insights. There was partial support for intangibility as a determinant of brand sensitivity (H6). There was a statistically significant ($p<0.10$), positive relationship between intangibility and brand sensitivity ($b = 0.179$, $p = 0.097$). Additionally, there was no evidence of a statistically significant relationship between either importance ($b = 0.099$, $p = 0.362$) or complexity ($b = 0.159$, $p = 0.148$) and brand sensitivity. Thus, hypotheses 3 and 4 were not supported. Hypothesis 7 suggested that individual risk would have a moderating effect on the independent variables and brand sensitivity. The test for these interaction effects did not yield statistically significant results. Thus, hypothesis 7 was not supported.

There was partial support ($p<.10$) for relationship quality as a determinant of brand sensitivity (H5). Hypothesis 5 expected that there would be a negative relationship between the two variables, however. Relationship quality was found to have a significant ($b = 0.183$, $p = .090$), positive relationship on brand sensitivity.

There was strong support for the effects of risk on brand sensitivity. Though not hypothesized as a direct main effect, individual risk attitude was positively related to brand sensitivity in experiment 2 ($b = 0.229$, $p = 0.034$) and experiment 3 ($b = 0.267$, $p = 0.013$). Similarly, perceived risk was positively related to brand sensitivity in experiment 2 ($b = 0.346$, $p = 0.001$) and experiment 3 ($b = 0.254$, $p = 0.018$). Moreover, when testing for the interaction effects of individual risk attitude and perceived risk on relationship quality and intangibility in experiment 3, both variables were found to be statistically significant.

CHAPTER 5 - DISCUSSION, IMPLICATIONS AND LIMITATIONS

Discussion of Results

The purpose of this study was to examine branding in organizational buying contexts by developing and testing a conceptual model that posits the conditions that are likely to increase or decrease organizations' brand sensitivity when selecting suppliers. It addresses questions related to when an organization should implement a branding strategy and when brand cues might influence an organizational buying unit. It is significant in that it is arguably the most empirically rigorous study of branding in a B2B context, as it combines multiple methodologies and samples that include actual buying managers employed by industrial entities. Moreover, it makes several key contributions to academic literature and managerial practice. Our results contradict assumptions about buyers' reliance on purely functional and tangible product factors (e.g., price and functionality) and supports the growing body of literature that indicates that supplier selection may be strongly influenced by intangible factors such as reputation, buyer-seller relationship, or brand image (e.g., Lynch and de Chernatony 2004; Mudambi et al. 1997).

The concept of intangibility appears to be central to an organization's brand sensitivity level. Its apparent impact on brand sensitivity in B2B settings suggests that it may guide future theory and marketing strategy development going forward. Academics have recognized the importance of intangibility in consumer decision-making. Tarn (2005) notes that intangibility leads to divergent attitudes and expectations, effects decision analysis, and results in the use of complex evaluation models. Perhaps, its effect is heightened in

B2B settings due to the contextual, psychological, and product nuances of organizational buying (e.g., the group buy, technologically complex products, etc.) (Brown, Bellenger, and Johnston 2007).

Intangibility has traditionally been associated with services marketing literature. This study inextricably links intangibility with B2B products. Its results suggest that the intradisciplinary boundary between the study of goods and services may be more nebulous than previously realized. Organizational buying scholars have previously conceptualized B2B products as being comprised of tangible and intangible bundles of attributes. Tangible attributes generally include price and various functional specifications, while intangible attributes generally include company reputation and various augmented services (e.g., McQuiston 2004; Mudambi et al. 1997). This study finds empirical support for the notion that B2B "products" are indeed a bundle of tangible and intangible elements. Therefore, in B2B contexts, the relevant issue transcends notions of the product as actual output. Instead, B2B products include the processes used to produce them, as well as the supporting services required to deliver and maintain them (Morris and Johnston 1987).

Artificially separating goods from services may be unrealistic and indeed may lead to faulty conclusions. Intangibility, as well as heterogeneity, co-production, and even perishability, are likely to come into play in the typical B2B product purchase. Moreover, since these elements result in increased perceptions of risk (e.g., Groonroos 1978; Shostack 1977), we might expect that the resulting uncertainty and consequences associated with a

B2B product purchase is likely to be compounded further by the disparate expectations of and evaluative models used by each buying team member.

The survey questionnaire asked respondents to reflect on an actual buying situation where they were buying team members involved with the selection of a particular industrial product. Its results suggest no role for individual risk attitude and allude to at an indirect role for perceived risk in organizational buying. The experiment asked respondents to play the role of a key decision-maker on a buying team charged with the purchase of an order of a specific product. Consistent with risk and branding theory, its results clearly point to the direct role of individual risk attitude and perceived group risk in organizational decision-making. This apparent inconsistency might be due to the advantages of a more controlled experimental setting. By manipulating only two antecedent variables and restricting the scope of the product to be evaluated, the experiment allowed for a much more focused analysis capable of detecting a buying unit's perceptions of risk, as well as a buying unit member's personal risk attitude.

The results of Experiment 3 suggest that intangibility and relationship quality positively effect brand sensitivity, albeit at a more liberal alpha level (i.e., α=.10). This is a noteworthy finding for a number of reasons. First, although we hypothesized a negative relationship between relationship quality and brand sensitivity, the indication that relationship quality may lead to brand sensitivity has interesting implications. Perhaps, by consistently promoting their brand(s), vendors are indeed affecting a buying team's brand sensitivity. That is, it may not matter whether the brand under consideration is well-known universally. To the buying team, it may be a trusted and established brand.

This finding also raises questions about statistical significance versus practical significance. Some scholars contend that the adoption of higher, more "liberal" alphas is appropriate when conducting exploratory analyses or when the objective is to detect preliminary trends (Minium, Clarke, and Cladarci 1999). Kirk (1995) cautions researchers to consider appropriate alpha levels based on the context of study and the risks of type II error. In some cases, including pilot studies, researchers must assess whether the differences between the populations under study are enough to be useful in the real world. We maintain that our results are indeed substantive enough to encourage what appears to be a promising line of research.

This study provides empirical evidence in support of branding's role in industrial settings. Specifically, it suggests that organizational buyers are likely to benefit from positive brand cues in those situations where they have difficulty defining, formulating, or mentally grasping the product under evaluation and when they have high quality relationships with their vendors.

Theoretical Implications

This effort provides empirical support for the importance of studying branding in organizational settings. More specifically, the results support extant qualitative and descriptive studies that found that intangible factors matter in industrial markets, even in rational and systematic decision making (e.g., Mudambi et al. 1997).

We found that the concept of intangibility is the key determinant of brand sensitivity in organizational contexts. It confirms suggestions of and raises additional questions about the tangibility of B2B products, as they appear to skew towards the intangibility end of the tangibility-intangibility spectrum and even into the services marketing domain. Thus, intangibility is a theoretical concept critical for understanding the role of branding in the organizational buying process.

Kapferer and Laurent (1988) recognized the need to measure the variation in brand importance from one buyer to another and introduced the concept of brand sensitivity as a means of comparing branded with unbranded products. Yet, the concept of brand sensitivity has been largely overlooked in marketing literature. To the author's knowledge, brand sensitivity has been studied only once in an organizational setting (i.e., Hutton 1997). This study confirms that brand sensitivity is a potentially important theoretical concept since a buying team's sensitivity to select a branded versus a lesser-known/unbranded product is likely to vary depending on the purchase context and the perceived intangibility of the product under evaluation.

The concept of brand sensitivity was originated in consumer literature and related to an individual's personality characteristic. This study adapted the original measure of brand sensitivity and applied it in an organizational buying setting. The results suggest that the revised measure is reliable and valid. Furthermore, it appears to be versatile enough to capture the attitudes of a group of business managers charged with making a product selection. Importantly, it is likely to be meaningfully distinct and more appropriate for business contexts compared with other more personality-oriented brand measures. For example, the construct brand consciousness measures consumers' orientation toward buying more expensive, well-known brands (Sproles and Kendall 1986). It is considered to be a basic consumer personality. However, personality traits are conceptualized to be relatively enduring. By definition, buying units are dynamic and fluid. Accordingly, their brand sensitivity levels are likely to depend on a variety of personal and contextual variables, including their perceptions of risk, the intangibility of a product, and the level of relationship quality with a vendor.

Risk was expected to play a prominent role in moderating the conceptualized relationships, based on consumer decision-making, branding, and organizational behavior literature. Yet, the influence of risk as it relates to the determinants of brand sensitivity was mixed; the role of risk was evident in the experimental results, but not in the survey results. This finding is somewhat perplexing and suggests a need for further investigation of the interrelationship of intangibility and brand sensitivity, in particular. Perhaps, our risk measures or analytical techniques affected these results. Scholars have emphasized the shortcomings of the operationalizations of risk in academic literature. This study included established measures of perceived risk and individual risk attitude. Although each measure demonstrated the qualities necessary for a reliable measure, there are questions as to whether the measures were optimal. As Stone and Gronhaug (1993) note, risk measurements should be improved, and the assumption of the underlying dimensions should be challenged. Moreover, the use of other, more interpretive techniques might reveal alternative explanations of the role of risk in organizational decision-making and brand selection, in particular.

Managerial Implications

The results of this study have important implications for B2B marketing managers. It is apparent that brands play a meaningful role in contexts where prospective buyers perceive high levels of intangibility in the products that they are evaluating. This sense of intangibility is likely to lead to a heightened sense of risk and the implementation of strategies that might reduce these perceptions. From the marketer's perspective, it is imperative that he or she determine when intangibility might be an issue in a selling situation.

The findings of this research, as it pertains to the concept of intangibility, imply that branding strategy may be more or less important depending on a company's market reputation. B2B companies or products with weak reputations may have no other choice but to proactively promote their tangible attributes (e.g., functionality or price) to reduce a buying unit's brand sensitivity. In these cases, their objective may be to diminish the importance of their brand and its associated intangible elements. On the other hand, companies or products with strong reputations may find it advantageous to promote their brand and its associated intangible elements. In these cases, there may be competitive advantage in highlighting their brand reputation and its associated service, innovation, or logistics benefits. Thus, their objective may be to heighten a buyer's sense of intangibility in order to increase their market position.

Consumer literature and specifically services marketing literature offer guidance on how to "tangebilize" services when strategically advantageous. Borrowing from this and other relevant literature (e.g., Levitt 1981; Shostack 1977), we find numerous strategies and tactics that are likely to benefit B2B practitioners. Berry and Clark (1986) propose a typology of four communication strategies for enhancing perceptions of intangibility: visualization, association, physical representation, and documentation. *Visualization* refers to the creation of a "vivid, mental picture of a service's benefits or qualities." *Association* links an extrinsic good, person, event, place, or object to the actual service allowing for easier comprehension and evaluation of the service. *Physical representation* includes tangibles that are directly or peripherally parts of a service and *documentation* is information such as facts or figures explaining the value or quality of the service (Stafford 1996).

Tarn (2005) proposes that marketers find a balance between operation-based tangibilization (OBT) and marketing-based tangibilization (MBT) efforts. OBT refers to operational activities implemented by the service firm during the service delivery process to decrease a clients' sense of intangibility (e.g., employee uniforms, company design and décor). MBT are those activities conducted by the service firm prior to the service delivery process designed to raise a clients' sense of tangibility before the encounter. He suggests that firms must integrate marketing strategies that include quantification, ranking, “factualization,” word-of-mouth communication, and frequent information sharing.

The aforementioned studies, and others that address intangibility, stress how important it is for a buyer to mentally grasp and/or clearly perceive the value of products under consideration. Regardless of market reputation, B2B marketers must strive to reduce information asymmetry and build confidence. This process must begin at the strategy development phase, include product and ancillary service development activities, and involve the consistent execution of various marketing mix initiatives.

Companies that have successfully used the intangibility of their products to their advantage are likely to have well-positioned brands (e.g., reliable, stable, functionally superior, etc.). A good corporate reputation can reduce the risk of uncertainty inherent in intangible products. BASF serves as a model in that it has experienced success due to its positioning as an innovative partner and technological leader, for example (Lamons 2005). Of course, a meaningful positioning requires that managers determine their prospective customers’ desired benefits and expectations. This is likely to require extensive external research, as well as an internal assessment of their portfolios. They must objectively evaluate where their products/product bundles fall on the continuum that ranges between tangible-dominant and intangible-dominant (Shostack 1977). In addition, they must assess their product category, and specifically their market, to determine whether they would gain a competitive advantage by brand-building strategies versus more pedantic initiatives.

Firms that determine that they can capitalize on the perceived intangibility of a product should rely on an integrated communication approach. Whereas brand-building may not be critical in all situations, in these instances, brand-building may be essential. The findings of this study extend research that found brands to be effective symbols that communicate meaningful attributes and ultimately reduce risk concerns. Moreover, advertising campaigns can be a tool for such brand-building efforts. Stafford (1996) suggests that appropriate verbal and visual cues can effect perceptions of tangibility.

Salespeople and account managers may play a critical role in affecting perceptions of intangibility and building brand reputation. Our findings suggest that the quality of the buyer-seller relationship perceived may directly affect the brand choice. According to Laroche et al. (2001), an effective salesperson can "tangebilize" a product at a personal level, reduce information asymmetry by educating customers about the product/process in question, and essential enhance corporate and product brand reputations.

The B2B product often requires customization and involves a prolonged process. To reduce concerns that may be associated with intangibility, marketers should take steps to make the process as transparent as possible. Pilot testing, trial periods, plant tours, production process monitoring, and even granting physical space on-site are all potentially viable offerings that can serve B2B managers that market intangible-dominant products. Such efforts are likely to positively influence a buying unit's sensitivity to such intangible factors as trustworthiness, credibility, and innovativeness. Ultimately, they are certain to reinforce their brands' reputations.

Limitations

This study takes a promising step towards validating the study of branding in organizational contexts, but it is not without its limitations. Because of its exploratory nature, the conceptual model did not have the benefit of building upon a formidable foundation of empirically rich literature. The model is largely based on non-empirical conceptualizations or consumer literature.

Its objective was to test a parsimonious conceptual model with risk theory as its theoretical framework. As such, perceived risk and individual risk attitude were the only moderating or mediating variable considered. It is likely that some of the hypothesized relationships would be significantly altered with the inclusion of other theoretically-related variables. For example, knowledge and involvement are likely to influence brand selection, perceived risk, and even intangibility. (e.g., Bettman and Park 1980; Celsi and Olson 1988; de Chernatony and Lynch 2004; Dowling 1986; Rao and Monroe 1988; Laroche et al. 2003; Murray and Schlacter 1990).

As noted earlier, the individual risk attitude and perceived risk measures may have been limiting. Scholars have encouraged the use of multiple measures and multiple formats to capture perceived risk and an individual's risk perceptions and attitudes (e.g., Conchar et al. 2004; Kogan and Wallach 1964; McCrimmon 1986; Stone and Gronhaug 1993). However, lengthy scales and hypothetical scenarios can be cumbersome and are a challenge for any researcher, and certainly organizational buying researchers, due to many factors. In brief, the risk measures used may not have been optimal.

Structural equation modeling is known to have many advantages. However, a key limitation is its inability to model non-linear relationships. It is quite likely that some of the variables in this study might follow nonlinear patterns (e.g., importance and complexity, relationship quality). Furthermore, our test for the moderating effects of individual risk attitude and perceived risk utilized the approach recommended by Jaccard and Wan (1996). Other methods and techniques may be better suited for the testing of interactive effects.

Finally, the survey instrument was designed such that respondents were not asked to react to a specific product or product class, beyond that of a "raw material or component." This was determined because the advantages of broad external validity seemed to offset advantages of focus and precision at this stage of research. On the other hand, one could argue that not specifying a particular product or product class may have been limiting. The results of the experiments, which did specify a single industrial product (i.e., high-speed industrial pumps), suggest that focusing on a specific product might reduce noise and lead to new insights. For instance, the variance in the technical complexity, and even cost of the products under consideration, in the survey was sure to be substantial. Some respondents may have considered fairly standardized product offerings whereas others may have considered extremely customized product offerings.

Future Research

Branding in organizational settings and the role of intangibility, in particular, in these settings warrants closer examination. This study extends B2B branding literature by offering empirical support for a commitment to continued research.

The dominant effect of intangibility on brand sensitivity is noteworthy. Future research must probe further into this finding by considering what role each of intangibility's three dimensions play in this relationship. In addition, this study hypothesized a conceptual model sufficient for exploratory research. Future studies should hypothesize and test other more complex models, particularly those that involve different moderators and mediators. Moreover, there is opportunity to replicate this model in other settings, including service settings or within particular industries, and at different phases in the buying process (e.g., the information search phase).

Utilizing a multi-method approach was beneficial, but additional studies should apply other methodologies and better measures. Such efforts are likely to address outstanding questions concerning the role of risk as it relates to various brand-related topics, including brand sensitivity. This study focused on brand sensitivity in a product context. Future efforts should consider brand sensitivity as it pertains to corporate brands, product brands, and even ingredient brands.

The focus of this study was on organizational buyers and particularly the factors that influence their sensitivity to branded products. A follow up study might consider branding strategy from a seller's perspective. Sellers appear to be faced with choices involving when and how to strategically invest in branding activities. According to the findings of this study, that decision is related to the real or perceived intangibility of their product offerings. There is also an opportunity to study the best practices of marketers faced with enhancing the tangibility of their products and the effectiveness of various, contrasting approaches.

TABLES AND FIGURES

TABLE 1
Hypothesized Direct and Moderator Effects on Brand Sensitivity

	Proposed Effect on Brand Sensitivity	
Hypotheses	**Positive**	**Negative**
Buying Center Variables		
1) High procedural control		X
2) Quality-dominant departmental objectives	X	
Purchase Situation Variables		
3) High level of purchase importance	X	
4) High level of complexity	X	
Product/Relationship Variables		
5) High relationship quality		X
6) Intangible-dominant product/service	X	
	Strengthen	**Weaken**
Moderating Variable		
7) Risk averse attitudes	X	

TABLE 2
Variables / Conditions that Suggest High vs. Low Buying Center Brand Sensitivity

Variables / Conditions	High Brand Sensitivity	Low Brand Sensitivity
Buying Center	• Low Procedural Control • Quality-Dominant Objectives • Risk Averse Characteristics (moderating effect)	• High Procedural Control • Cost-Dominant Objectives • Risk Prone Characteristics (moderating effect)
Purchase Situation	• High Importance Purchase • Complex Purchase	• Low Importance Purchase • Simple Purchase
Product/Relationship	• Low Relationship Quality • Intangible-Dominant	• High Relationship Quality • Tangible-Dominant

TABLE 3
Scope of Study

Key Decisions	Options	Selection	Rationale
Product Type	• Product • Service	• Product	• Most generalizable; frequently studied
Industry	• General • Single, specific industry	• General	• External validity; sample size
Brand Approach	• Corporate brand • Ingredient brand	• Corporate brand	• Commonly used in B2B settings
Buying Context	• Buying Center • Individual buyer	• Individual buyer	• Use of key informants is acceptable, though there are limitations
Purchase Situation	• New Task • Straight Rebuy • Modified Rebuy	• Modified Rebuy	• Balance between high risk and buyer autonomy
Purchase Stage	• Information Search • Supplier Selection	• Selection	• Most relevant; possibility of validating with secondary data

TABLE 4
Research Plan

Phase 1: Traditional Survey

Approach	Sample	Variables/Measures	Method(s)	Potential Findings
Survey	• 200-300 buying center members using e-Rewards participants	• Buying Center o Procedural Control o Departmental Objectives • Purchase Situation o Importance o Complexity • Product/Relationship o Tangibility o Buyer/Seller relationship • Individual risk attitude • Brand sensitivity	• Pretest items with 30-50 managers • SEM	• Significance levels of independent variables on dependent variables • Test/adapt brand sensitivity scale • Role of risk attitude as a moderating variable

Phase 2: Experimental Design (Three 2x2 experiments)

Design	Variables/Measures	Method(s)	Potential Findings
• Respondents divided into 4 groups • Each group completes three scenarios • Scenarios involve manipulating antecedent variables to influence risk levels and brand sensitivity levels • Individual risk attitude via scale • Brand sensitivity 1 via scale and brand sensitivity 2 via constant sum approach	• Buying Center o Procedural Control o Departmental Objectives • Purchase Situation o Importance o Complexity • Product/Relationship o Relationship Quality o Intangibility • Risk attitude (*moderator*) • Brand sensitivity (DV)	• Pretest manipulations and scales with 30-50 managers • Conduct regression analyses • Each participant exposed randomly to the three experiments	• Effects of independent variables on brand sensitivity • Moderating effect of risk attitude • Test brand sensitivity scale

TABLE 4 (Cont.)

Phase 2 (Cont.)

MODERATOR: Individual Risk Attitude

A) Buying Center Variables (H1 and H2)

	High Procedural Control	**Low Procedural Control**
Quality-Dominant		*High Brand Sensitivity*
Cost-Dominant	*Low Brand Sensitivity*	

B) Purchase Situation Variables (H3 and H4)

	High Importance	**Low Importance**
High Complexity	*High Brand Sensitivity*	
Low Complexity		*Low Brand Sensitivity*

C) Product/Relationship Variables (H5 and H6)

	Strong Relationship Quality	**Low Relationship Quality**
High Intangibility		*High Brand Sensitivity*
Low Intangibility	*Low Brand Sensitivity*	

TABLE 5
Pre-Test: Demographics and Background Information

Age	Frequency	%
<25	2	2
25-34	28	27.5
35-44	26	25.5
45-54	28	27.5
>54	18	17.6
	102	

Race	Frequency	%
White	80	79
Black	5	5
Hispanic	5	5
Asian	9	9
Other	2	2
	101	

Gender	Frequency	%
Male	55	54
Female	47	46
	102	

Education	Frequency	%
Some HS	1	1
HS	4	4
Some College	14	13.7
College	51	50
Post-Grad	26	25.5
Doctoral	6	5.9
	102	

TABLE 5 (Cont.)

Summary of Background Characteristics

Company Tenure	Frequency	%
<1 yr	9	9
1-2 yrs	18	18
3-4 yrs	23	23
5-6 yrs	9	9
>6 yrs	42	41.5
	101	

Purchase Experience	Frequency	%
<6 yr	38	37.2
6-10 yrs	18	17.6
11-15 yrs	18	17.6
16-20 yrs	7	7
>20 yrs	21	20.5
	102	

Product Experience	Frequency	%
<1 yr	24	23.5
1-2 yrs	25	24.5
3-4 yrs	13	13
5-6 yrs	10	10
>6 yrs	30	29.5
	102	

Industry	Frequency	%
Manuf	28	28
Services	45	45.5
Distribution	5	5
Other	21	21
	99	

Company Size	Frequency	%
1-199 emps	49	48
200-499	12	12
500-999	7	7
1000-4,999	16	16
>5K	18	18
	102	

TABLE 6
Final Survey: Demographics and Background Information

Age	Frequency	%
<25	7	2.6
25-34	66	24.3
35-44	87	32
45-54	65	23.9
>54	47	17.3
	272	

Race	Frequency	%
White	207	76.4
Black	10	3.7
Hispanic	12	4.4
Asian	31	11.4
Other	11	4.1
	271	

Gender	Frequency	%
Male	149	55
Female	120	45
	269	

Education	Frequency	%
Some HS	1	0.4
HS	13	4.8
Some College	49	18.1
College	121	44.6
Post-Grad	71	26.2
Doctoral	16	5.9
	271	

TABLE 6 (Cont.)

Summary of Background Characteristics

Company Tenure	Frequency	%
<1 yr	13	4.8
1-2 yrs	40	14.9
3-4 yrs	47	17.5
5-6 yrs	33	12.3
>6 yrs	136	50.6
	269	

Purchase Experience	Frequency	%
<6 yr	106	39.4
6-10 yrs	47	17.5
11-15 yrs	31	11.5
16-20 yrs	29	10.8
>20 yrs	56	20.8
	269	

Product Experience	Frequency	%
<1 yr	59	21.8
1-2 yrs	46	17.0
3-4 yrs	53	19.6
5-6 yrs	26	9.6
>6 yrs	87	32.1
	271	

Industry	Frequency	%
Manuf	63	23.2
Services	125	46
Distribution	13	4.8
Other	71	26.1
	272	

Company Size	Frequency	%
1-9	76	28
10-19	22	8.1
20-99	29	10.7
100-249	19	7.0
250-999	24	8.9
1000-4999	37	13.7
>5000	64	23.6
	271	

TABLE 7
Pre-Test Construct Reliability Summary

Construct/Items	Alpha	Comments
Procedural Control 1. Our buying team had an established way of doing things for this purchase situation. 2. We had clear cut rules about how to make this purchase. 3. Responsibility was clearly defined for the accomplishment of each step of the purchase procedure in this situation. 4. When the need arose, there were no existing guidelines about how to fill it. (r)	.712	• Coefficient alpha = .79 (Hunter et al. 2006)
Departmental Objectives 1. My department's bonus/incentive plan rewards efficiency over performance. 2. I feel that my management places more emphasis on cost savings compared with quality. 3. My supervisors worry more about cutting costs rather than execution. 4. My department places more emphasis on: 1 (cost) to 7 (quality)	.698	• New scale; requires revision
Importance (PSVImp2) Compared to other purchases your firm makes, this product is: 1. Important – unimportant (r) 2. Nonessential – essential 3. High priority – low priority (r) 4. Insignificant - significant	.888	• Coefficient alpha = .85 (Cannon and Perrault 1999)
Complexity Compared to other purchases your firm makes, this product is: 1. Simple – complex 2. Complicated – uncomplicated (r) 3. Technical – nontechnical (r) 4. Easy to understand – difficult to understand	.783	• Coefficient alpha = .88 (Cannon and Perrault 1999)
Trust 1. This supplier could be relied on to keep its promises. 2. This supplier put our interests first. 3. This supplier usually kept the promises that it made to my company. 4. We could count on this supplier to provide a quality product.	.842	• Coefficient alpha = .76 (Verhoef et al. 2002)
Satisfaction 1. Overall, I believe we were both quite satisfied with our relationship. 2. This was among the best supplier relationships that our company had. 3. We thought this supplier was pleased with our relationship. 4. I would say our relationship with this supplier couldn't have been much better. 5. We were happy with this relationship.	.876	• Coefficient alpha = .82 (Smith and Barclay 1997)

TABLE 7 (Cont.)
Pre-Test Construct Reliability Summary

Construct/Items	Alpha	Comments
Commitment 1. We believed we were both committed to this relationship. 2. We had a strong sense of loyalty to this supplier. 3. This supplier was prepared to make short-term sacrifices to maintain our relationship. 4. We had made significant investments in this relationship.	.785	• Coefficient alpha = .72 (Anderson and Weitz 1992)
Intangibility 1. This item was very easy to see and touch. 2. We could physically touch this item. 3. We were able to test this item. 4. This item made us consider different outcomes. 5. This item was very tangible. 6. We needed more information about this product to get a clear idea of what it would do. (r) 7. We had a clear picture of this item. 8. The image of this item came to our mind right away. 9. This was not the sort of item that was easy to picture. (r) 10. This was a difficult item to think about. (r) 11. We felt that the value of this item was: 1 (not easy to understand) to 7 (very easy to understand) 12. We felt that this item was: 1 (very abstract) to 7 (very concrete) 13. We feel that this item was: 1 (very general) to 7 (very specific)	.860	• Consists of 3 dimensions: physical, mental, and general intangibility (Laroche, Bergeron & Goutaland 2001)
Brand Sensitivity 1 1. When we made this purchase, the brand name was considered. 2. When we recommended this product, we took the brand into account. 3. We chose this product based on its brand name. 4. With this purchase, the brand name was important to us. 5. When evaluating products like this, we prefer recommending well-known brands. 6. In this case, we would have reconsidered moving forward, if certain suppliers weren’t available to provide us with this product.	.903	• Coefficient alpha = .89 (Lachance et al. 2002)
Individual Risk The following questions refer to your personal attitudes and behaviors. 1. I would rather be safe than sorry. 2. I want to be sure before I purchase anything. 3. I avoid risky things.	.774	• α=.78 (Donthu and Garcia 1999; Donthu and Gilliland 1996)

TABLE 8
Final Data: Construct Reliabilities

Construct	Literature	Pre-Test (n=119)	Final-All (n=314)	Final based on mins-to-complete and deleted items* (n=273)
Procedural Control	.79	.712	.906	.924
Departmental Objectives	*New scale*	.698	.789	.905 w/o item 1
Importance	.85	.888	.943	.95
Complexity	.88	.783	.876	.872
Intangibility	*NA*	.860	.899	.922
Physical	.74	.830	.848	.871
Mental	.86	.738	.929	.944
General	.61	.776	.781	.826
Trust	.76	.842	.915	.931
Satisfaction	.82	.876	.930	.94
Commitment	.72	.785	.839	.850
Brand Sensitivity 1	.89	.903	.927	.944 w/o item 6
Individual Risk	.78	.774	.806	.842
Perceived Risk	.845	.765	.853	.868

*Restricted to respondents who completed the survey with 1.0 standard deviation of mean minutes (approx. 18 mins) (i.e., over 5 mins and under 32 mins). 87% of respondents completed the survey within 1.0 standard deviation of the mean.

TABLE 9
Measurement Model Summary

	Set 1	Set 2	Set 3	Set 4
Variables	• Procedural Control • Departmental Objectives • Importance 2 • Complexity 2	• Trust • Satisfaction • Commitment • Brand Sensitivity 1	• General intangibility • Mental intangibility • Physical intangibility • Individual Risk	• Overall intangibility • Individual Risk
# of Iterations	6	16	8	22
Chi-square	117.94	464.33	267.59	101.51
Degrees of Freedom	71	98	71	103
RMSEA (≤.06)	0.048	0.13	0.097	0.18
CFI (≥.95)	0.99	0.96	0.96	0.87
SRMR (≤.08)	0.042	0.043	0.058	0.093
Standardized Residuals				
Largest	3.49	12.21	5.51	13.62
Smallest	-2.72	-6.03	-3.93	-4.53

- Deleted item 1 of departmental objectives because of low loadings. Deleted complexity 23 because modification indexes suggest it loads on two other constructs and has low t-values.
- Deleted items 3 and 4 of commitment scale because of low loadings. Deleted item 6 of brand sensitivity because of loadings.
- Deleted physical intangibility item 4 because of loadings. Also, deleted mental intangibility item 1 because it has too much in common with several other items, based on modification indexes.

TABLE 10
Main Study Measurement Item Properties: Descriptives and Cronbach's Alpha

Construct/Items	Mean	Standard Deviation	Scale Reliability
Procedural Control	4.43	1.61	.924
1. Our buying team had an established way of doing things for this purchase situation.	4.62	1.78	
2. We had clear cut rules about how to make this purchase.	4.40	1.87	
3. Responsibility was clearly defined for the accomplishment of each step of the purchase procedure in this situation.	4.53	1.72	
4. When issues came up, there were existing guidelines about how to address them.	4.19	1.75	
Departmental Objectives	3.50	1.39	.905 w/o 1
1. My department's bonus/incentive plan rewards efficiency over performance.	3.64	1.92	
2. I feel that my management places more emphasis on cost savings compared with quality.	3.56	1.65	
3. My supervisors worry more about cutting costs rather than execution.	3.48	1.62	
4. My department places more emphasis on cost-savings compared with quality control.	3.29	1.61	
Importance	5.20	1.43	.95
Compared to other purchases your firm makes, this product is:			
1. Unimportant – Important	5.22	1.57	
2. Nonessential – Essential	5.31	1.52	
3. Low priority – High priority	5.08	1.51	
4. Insignificant - Significant	5.23	1.45	
Complexity	3.97	1.50	.872
1. Compared to other purchases your firm makes, this product is:			
2. Simple – Complex	3.94	1.78	
3. Uncomplicated– Complicated	3.81	1.71	
4. Not Technical – Technical	4.55	1.89	
5. Easy to understand – difficult to understand	3.59	1.60	
Trust	4.94	1.38	.931
1. This supplier could be relied on to keep its promises.	5.02	1.60	
2. This supplier put our interests first.	4.62	1.51	
3. This supplier usually kept the promises that it made to my company.	4.97	1.48	
4. We could count on this supplier to provide a quality product.	5.14	1.48	

TABLE 10 (Cont.)
Main Study Measurement Item Properties: Descriptives and Cronbach's Alpha

Construct/Items	Mean	Standard Deviation	Scale Reliability
Satisfaction	4.60	1.36	.940
1. Overall, I believe we were both quite satisfied with our relationship.	5.00	1.51	
2. This was among the best supplier relationships that our company had.	4.21	1.56	
3. We thought this supplier was pleased with our relationship.	4.71	1.44	
4. I would say our relationship with this supplier couldn't have been much better.	4.36	1.56	
5. We were happy with this relationship.	4.74	1.50	
Commitment	4.20	1.29	.850
1. We believed we were both committed to this relationship.	4.60	1.48	
2. We had a strong sense of loyalty to this supplier.	4.24	1.51	
3. This supplier was prepared to make short-term sacrifices to maintain our relationship.	4.00	1.58	
4. We had made significant investments in this relationship.	3.96	1.62	
Intangibility	5.27	1.65	.922
1. This item was very easy to see and touch.	5.12	1.89	
2. We could physically touch this item.	5.21	2.00	
3. We were able to test this item.	4.94	1.96	
4. This item made us consider different outcomes.	4.47	1.83	
5. This item was very tangible.	5.29	1.67	
6. We had enough product information to get a clear idea of what it would do.	5.55	1.45	
7. We had a clear picture of this item.	5.62	1.47	
8. The image of this item came to our mind right away.	5.18	1.67	
9. This was the sort of item that was easy to picture.	5.31	1.65	
10. This was an easy item to think about.	5.34	1.62	
11. We felt that the value of this item was: 1 (not easy to understand) to 7 (very easy to understand)	5.38	1.42	
12. We felt that this item was: 1 (very abstract) to 7 (very concrete)	5.59	1.34	
13. We feel that this item was: 1 (very general) to 7 (very specific)	5.53	1.50	
Brand Sensitivity 1	4.56	1.69	.944 w/o #6
1. When we made this purchase, the brand name was considered.	4.89	1.89	
2. When we recommended this product, we took the brand into account.	4.85	1.86	
3. We chose this product based on its brand name.	4.14	1.90	
4. With this purchase, the brand name was important to us.	4.27	1.89	
5. When evaluating products like this, we prefer recommending well-known brands.	4.66	1.84	
Individual Risk	5.05	1.36	.842
4. I would rather be safe than sorry.	5.20	1.62	
5. I want to be sure before I purchase anything.	5.40	1.45	
6. I avoid risky things.	4.58	1.61	

TABLE 11

Main Study Measurement Item Properties: Parameter Estimates, t-values and SMCs

Construct/Items	Loading	t-value	SMC
Procedural Control			
1. Our buying team had an established way of doing things for this purchase situation.	1.00	--	0.73
2. We had clear cut rules about how to make this purchase.	1.10	19.21	0.79
3. Responsibility was clearly defined for the accomplishment of each step of the purchase procedure in this situation.	1.00	19.10	0.79
4. When issues came up, there were existing guidelines about how to address them.	0.97	17.33	0.70
Departmental Objectives			
1. My department's bonus/incentive plan rewards efficiency over performance.	NA	NA	NA
2. I feel that my management places more emphasis on cost savings compared with quality.	1.00	--	0.63
3. My supervisors worry more about cutting costs rather than execution.	1.16	17.15	0.87
4. My department places more emphasis on cost-savings compared with quality control.	1.11	16.73	0.80
Importance			
Compared to other purchases your firm makes, this product is:			
1. Unimportant – Important	1.00	--	0.80
2. Nonessential – Essential	0.95	21.48	0.78
3. Low priority – High priority	0.98	23.76	0.85
4. Insignificant - Significant	0.98	24.35	0.86
Complexity			
Compared to other purchases your firm makes, this product is:			
1. Simple – Complex	1.00	--	0.81
2. Uncomplicated– Complicated	1.00	19.31	0.87
3. Not Technical – Technical	NA	NA	NA
4. Easy to understand – difficult to understand	0.70	13.69	0.49
Trust			
5. This supplier could be relied on to keep its promises.	1.00	--	0.81
6. This supplier put our interests first.	0.86	18.75	0.67
7. This supplier usually kept the promises that it made to my company.	0.95	24.82	0.86
8. We could count on this supplier to provide a quality product.	0.88	20.88	0.75
Satisfaction			
1. Overall, I believe we were both quite satisfied with our relationship.	1.00	--	0.75
2. This was among the best supplier relationships that our company had.	1.01	18.55	0.71
3. We thought this supplier was pleased with our relationship.	0.95	19.67	0.75
4. I would say our relationship with this supplier couldn't have been much better.	1.03	19.45	0.74
5. We were happy with this relationship.	1.06	22.33	0.85

TABLE 11 (Cont.)
Main Study Measurement Item Properties: Parameter Estimates, t-values and SMCs

Construct/Items	Loading	t-value	SMC
Commitment			
1. We believed we were both committed to this relationship.	1.00	--	0.76
2. We had a strong sense of loyalty to this supplier.	0.96	15.81	0.68
3. This supplier was prepared to make short-term sacrifices to maintain our relationship.	NA	NA	NA
4. We had made significant investments in this relationship.	NA	NA	NA
Intangibility			
1. This item was very easy to see and touch.	1.00	--	0.86
2. We could physically touch this item.	1.06	25.56	0.86
3. We were able to test this item.	0.78	14.51	0.49
4. This item made us consider different outcomes.	0.43	7.17	0.17
5. This item was very tangible.	0.69	15.65	0.54
6. We had enough product information to get a clear idea of what it would do.	1.0	--	0.74
7. We had a clear picture of this item.	1.03	20.14	0.79
8. The image of this item came to our mind right away.	1.13	18.95	0.74
9. This was the sort of item that was easy to picture.	1.18	20.91	0.82
10. This was an easy item to think about.	1.12	19.43	0.76
11. We felt that the value of this item was: 1 (not easy to understand) to 7 (very easy to understand)	1.00	--	0.62
12. We felt that this item was: 1 (very abstract) to 7 (very concrete)	1.06	13.89	0.73
13. We feel that this item was: 1 (very general) to 7 (very specific)	0.90	11.30	0.47
Brand Sensitivity 1			
1. When we made this purchase, the brand name was considered.	1.00	--	0.82
2. When we recommended this product, we took the brand into account.	1.01	25.08	0.86
3. We chose this product based on its brand name.	0.95	20.68	0.73
4. With this purchase, the brand name was important to us.	0.95	20.96	0.74
5. When evaluating products like this, we prefer recommending well-known brands.	0.88	19.15	0.68
Individual Risk			
1. I would rather be safe than sorry.	1.00	--	0.71
2. I want to be sure before I purchase anything.	0.90	14.11	0.73
3. I avoid risky things.	0.83	12.09	0.50

TABLE 12

Main Study Measurement Item Properties: Composite Reliabilities and AVE

Construct/Items	Completely Std Loadings	Composite Reliability[1]	AVE[2]
Procedural Control		0.92	75.26%
1. Our buying team had an established way of doing things for this purchase situation.	0.85		
2. We had clear cut rules about how to make this purchase.	0.89		
3. Responsibility was clearly defined for the accomplishment of each step of the purchase procedure in this situation.	0.89		
4. When issues came up, there were existing guidelines about how to address them.	0.84		
Departmental Objectives		0.91	76.67%
1. --			
2. I feel that my management places more emphasis on cost savings compared with quality.	0.79		
3. My supervisors worry more about cutting costs rather than execution.	0.94		
4. My department places more emphasis on cost-savings compared with quality control.	0.89		
Importance		0.95	76.67%
Compared to other purchases your firm makes, this product is:			
1. Unimportant – Important	0.89		
2. Nonessential – Essential	0.88		
3. Low priority – High priority	092		
4. Insignificant - Significant	0.93		
Complexity		0.95	82.20%
Compared to other purchases your firm makes, this product is:			
1. Simple – Complex	0.90		
2. Uncomplicated– Complicated	0.93		
3. Not Technical – Technical	--		
4. Easy to understand – difficult to understand	0.70		
Trust		0.93	77.23%
1. This supplier could be relied on to keep its promises.	0.90		
2. This supplier put our interests first.	0.82		
3. This supplier usually kept the promises that it made to my company.	0.93		
4. We could count on this supplier to provide a quality product.	0.86		
Satisfaction		0.94	76.03%
1. Overall, I believe we were both quite satisfied with our relationship.	0.87		
2. This was among the best supplier relationships that our company had.	0.84		
3. We thought this supplier was pleased with our relationship.	0.87		
4. I would say our relationship with this supplier couldn't have been much better.	0.86		
5. We were happy with this relationship.	0.92		

TABLE 12 (Cont.)

Main Study Measurement Item Properties: Composite Reliabilities and AVE

Construct/Items	Std Loadings	Composite Reliability	AVE
Commitment		0.84	71.85%
1. We believed we were both committed to this relationship.	0.87		
2. We had a strong sense of loyalty to this supplier.	0.82		
3. This supplier was prepared to make short-term sacrifices to maintain our relationship.	--		
4. We had made significant investments in this relationship.	--		
Intangibility		0.92	84.34%
1. This item was very easy to see and touch.	0.70		
2. We could physically touch this item.	0.62		
3. We were able to test this item.	0.52		
4. This item made us consider different outcomes.	--		
5. This item was very tangible.	0.71		
6. We had enough product information to get a clear idea of what it would do.	--		
7. We had a clear picture of this item.	0.88		
8. The image of this item came to our mind right away.	0.85		
9. This was the sort of item that was easy to picture.	0.89		
10. This was an easy item to think about.	0.87		
11. We felt that the value of this item was: 1 (not easy to understand) to 7 (very easy to understand)	0.64		
12. We felt that this item was: 1 (very abstract) to 7 (very concrete)	0.68		
13. We feel that this item was: 1 (very general) to 7 (very specific)	0.52		
Brand Sensitivity 1		0.94	76.74
1. When we made this purchase, the brand name was considered.	0.91		
2. When we recommended this product, we took the brand into account.	0.93		
3. We chose this product based on its brand name.	0.86		
4. With this purchase, the brand name was important to us.	0.86		
5. When evaluating products like this, we prefer recommending well-known brands.	0.83		
Individual Risk		0.84	64.57%
1. I would rather be safe than sorry.	0.84		
2. I want to be sure before I purchase anything.	0.85		
3. I avoid risky things.	0.71		

TABLE 13
Structural Model: Fully Disaggregated Model Results

Model Parameters	**Estimate**	**S.E.**	**T-Value**	**Sig.**
Procedural Control – Brand Sensitivity	0.05	0.08	0.67	ns
Departmental Objectives – Brand Sensitivity	0.01	0.08	0.11	ns
Importance – Brand Sensitivity	0.02	0.09	0.26	ns
Complexity – Brand Sensitivity	-0.06	0.08	-0.72	ns
Trust – Brand Sensitivity	-0.28	0.19	-1.46	ns
Satisfaction – Brand Sensitivity	0.10	0.34	0.30	ns
Commitment – Brand Sensitivity	0.32	0.25	1.27	ns
Intangibility – Brand Sensitivity	*0.77*	*0.16*	*4.73*	**

Variance Explained	**SMC**
Brand Sensitivity	.24

Fit Indices	
Chi-squared	2169.22
d.f.	743
p-value	0.0
SRMR	0.063
CFI	0.95
RMSEA	0.088
Hu and Bentler (1999) combinatorial rule?	Yes

TABLE 14
Structural Model: Partially Disaggregated Results (Main Model)

Model Parameters	Estimate	S.E.	T-Value	Sig.
Procedural Control – Brand Sensitivity	0.06	0.08	0.72	ns
Departmental Objectives – Brand Sensitivity	0.04	0.08	0.51	ns
Importance – Brand Sensitivity	-0.09	0.10	-0.91	ns
Complexity – Brand Sensitivity	0.00	0.07	-0.03	ns
Relationship Quality[a] – Brand Sensitivity	0.12	0.14	0.90	ns
Intangibility[b] – Brand Sensitivity	*0.86*	*0.19*	*4.64*	**

Variance Explained	SMC
Brand Sensitivity	.24

Fit Indices	
Chi-squared	610.80
d.f.	254
p-value	0.00
SRMR	0.049
CFI	0.96
RMSEA	0.075
Hu and Bentler (1999) combinatorial rule?	Yes

[a]Relationship quality measured by three factors (trust, satisfaction, and commitment); averaged items for each dimension.
[b]Intangibility measured by creating summary indicators for general, mental, and physical intangibility; averaged items for each dimension.

TABLE 15
Alternative Model 2: Effects of Perceived Risk as a Mediator

Model Parameters	Estimate	S.E.	T-Value	Sig.
Procedural Control – Perceived Risk	*0.16*	*0.07*	*2.41*	**
Departmental Objectives – Perceived Risk	0.00	0.07	0.07	ns
Importance – Perceived Risk	-0.06	0.08	-0.76	ns
Complexity – Perceived Risk	*0.59*	*0.07*	*8.50*	**
Relationship Quality – Perceived Risk	-0.11	0.11	-0.95	ns
Intangibility - Risk	0.19	0.15	1.27	ns
Perceived Risk-Brand Sensitivity	-0.07	0.06	-1.12	ns
Intangibility - Brand Sensitivity	*0.93*	*0.13*	*7.19*	**

Variance Explained	SMC
Perceived Risk	0.34
Brand Sensitivity	0.23

Fit Indices	
Chi-squared	758.98
d.f.	354
p-value	0.00
SRMR	0.052
CFI	0.96
RMSEA	0.065
Hu and Bentler (1999) combinatorial rule?	Yes

TABLE 16
Experimental Design: Summary of Demographic Characteristics

Age	Frequency	%
<25	6	6.5
25-34	18	19.1
35-44	19	20.4
45-54	30	32.3
>54	20	21.5
	93	

Race	Frequency	%
White	84	89.4
Black	4	4.3
Hispanic	2	2.1
Asian	3	3.2
Other	1	1.1
	94	100

Gender	Frequency	%
Male	48	51.6
Female	45	48.4
	93	100

Education	Frequency	%
Some High School	0	0
HS Graduate	3	3.2
College/University	28	29.8
Post-Graduate	14	14.9
Doctoral Study	6	14.9
	94	100

Purchase Involvement	Frequency	%
7	31	33
6	17	18.1
5	11	11.7
4	17	18.1
3	4	4.3
2	7	7.4
1	7	7.4
	94	100
Mean = 5.05 SD = 1.9		

TABLE 17
Experiment 2: Hypotheses Test Results

Effects of Importance and Complexity on Brand Sensitivity

Dependent Variable: BRAND SENSITIVITY

Hypotheses	Independent / Moderating Variables	Beta	t-Value	P	R^2	Hypothesis Supported?
H3	Importance	0.099	.916	0.362	0.01	No
H4	Complexity	0.156	1.459	0.148	0.024	No
H7	Importance x Individual Risk Importance Individual Risk	0.634 -0.516 0.126	1.245 -1.043 0.964	0.217 0.30 0.338	0.077	No
H7	Complexity x Individual Risk Complexity Individual Risk	-0.288 0.419 0.314	-0.583 0.880 1.773	0.562 0.381 0.080*	0.078	No
	Individual Risk	0.229	2.158	0.034**	0.053	
	Importance x Perceived Risk Importance Perceived Risk	0.309 -0.29 0.281	0.808 -0.834 1.984	0.421 0.407 0.05**	0.127	
	Perceived Risk	0.346	3.36	0.001**	0.12	
	Complexity x Perceived Risk Complexity Perceived Risk	0.059 0.008 0.310	0.155 0.022 1.994	0.877 0.982 0.05**	0.123	

*p<0.10
**p<0.05

TABLE 18
Experiment 3: Hypotheses Tests

Effects of Relationship Quality and Intangibility on Brand Sensitivity

Dependent Variable: BRAND SENSITIVITY

Hypotheses	Independent / Moderating Variables	Beta	t-Value	P	R^2	Hypothesis Supported?
H5	Relationship Quality	0.183	1.717	0.090*	0.034	Partial (p<0.10)
H6	Intangibility	0.179	1.680	0.097*	0.032	Partial (p<0.10)
H7	Relationship Quality x Individual Risk Relationship Quality Individual Risk	0.148 0.025 0.243	0.281 0.047 2.094	0.779 0.962 0.039**	0.10	No
H7	Intangibility x Individual Risk Intangibility Individual Risk	0.269 -0.095 0.214	0.551 -0.199 1.663	0.583 0.843 0.10*	0.10	No
	Individual Risk	0.267	2.55	0.013**	0.071	
	Relationship Quality x Perceived Risk Relationship Quality Perceived Risk	-0.017 0.113 0.217	-0.035 0.247 1.742	0.972 0.806 0.085*	0.072	
	Perceived Risk	0.254	2.419	0.018**	0.064	
	Intangibility x Perceived Risk Intangibility Perceived Risk	-0.035 0.321 0.298	-0.691 0.718 1.811	0.492 0.475 0.074*	0.07	

*p<0.10
**p<0.05

FIGURE 1
The B2B-Consumer Market Dimensions Continuum

	CONSUMER MARKET		BUSINESS MARKET
Contextual Conditions	**Low**	*Buying Situation Risk*	**High**
	Fashion / Self-Expressive	*Product-Market Drivers*	**Technological / Utilitarian**
	Individual	*Purchase Decision Process*	**Group**
Psychological Variables	**Social**	*Type of Risk*	**Economic and Performance**
	Impulse Purchases	*Impulsiveness*	**Rational Discourse**
	External: Icons / Peers	*Reference Group Influencers*	**External: Best-in-class Internal: Experts**
Product Variables	**Product-Oriented**	*Brand Strategy Approach*	**Company-Oriented**
	Product and Associated Imagery	*Product Value*	**Product and Associated Services**
Marketing Communications Variables	**Traditional / Broadcast**	*Medium*	**Interactive / Personal**
	Image-Based	*Content*	**Technical / Pedagogic**

FIGURE 2
Determinants of Brand Sensitivity Moderated by Risk Attitude

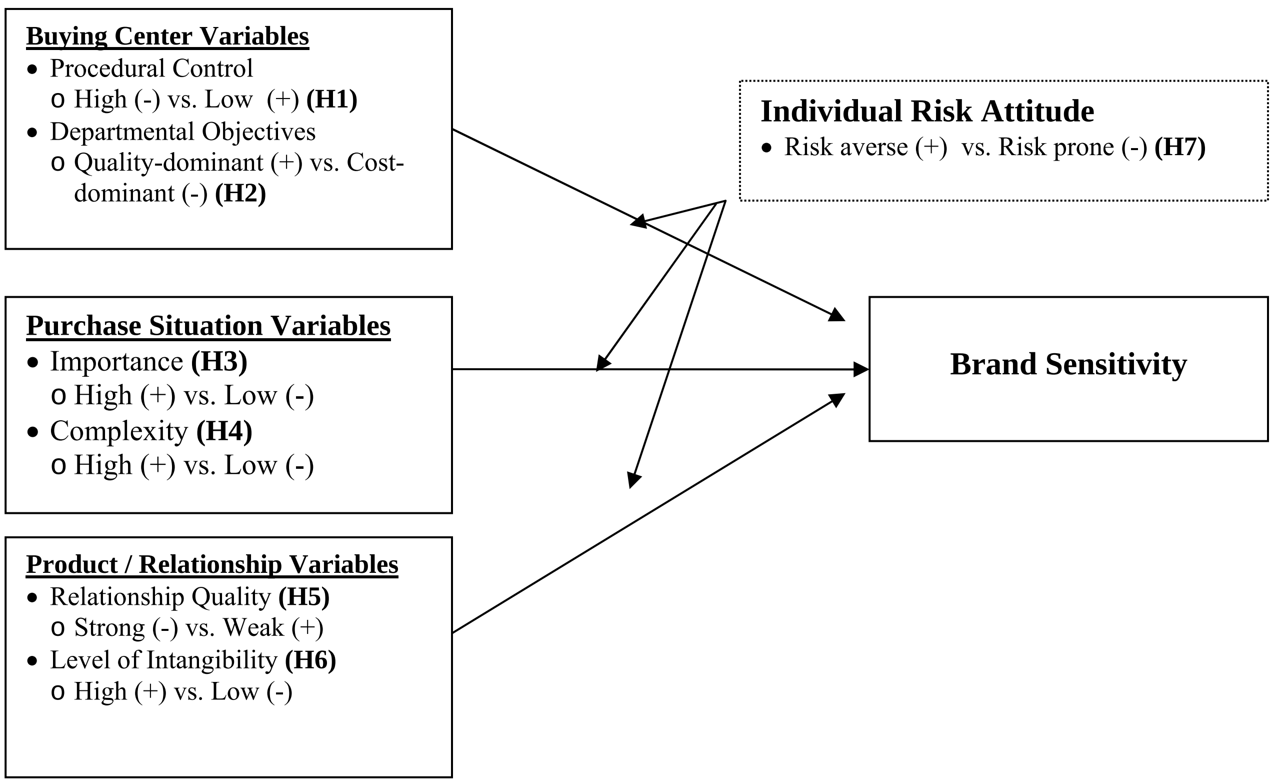
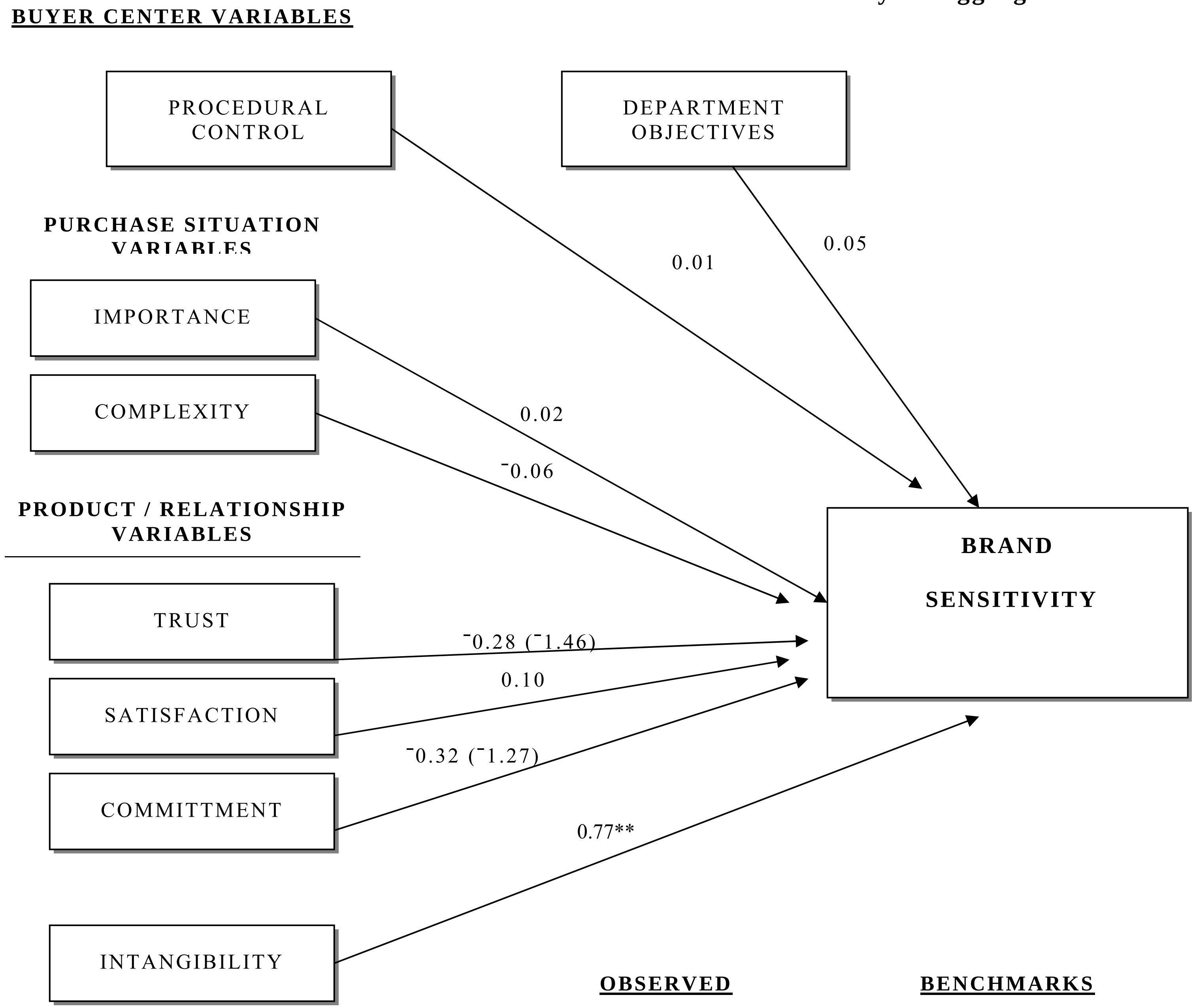
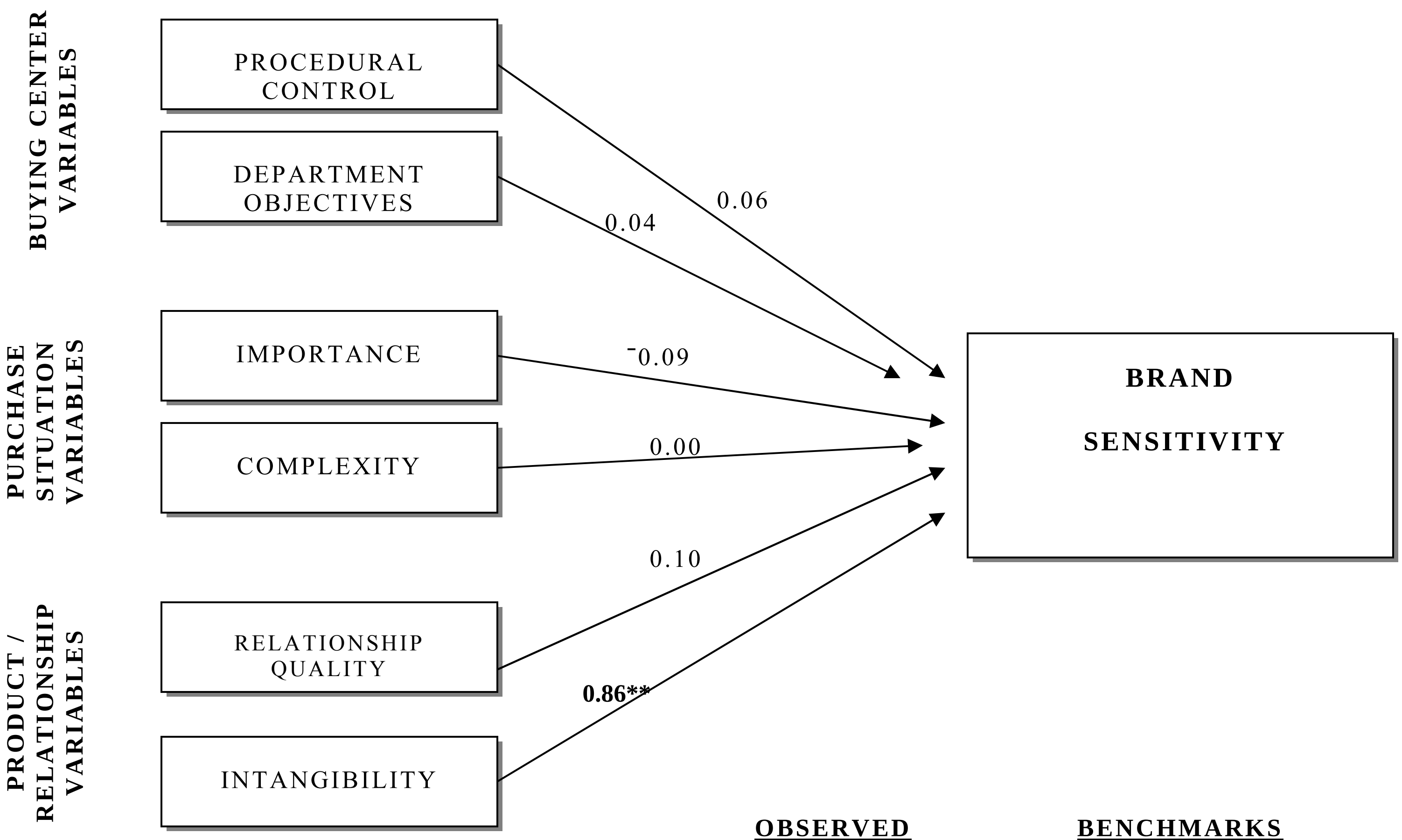


FIGURE 3
Fully Disaggregated Model



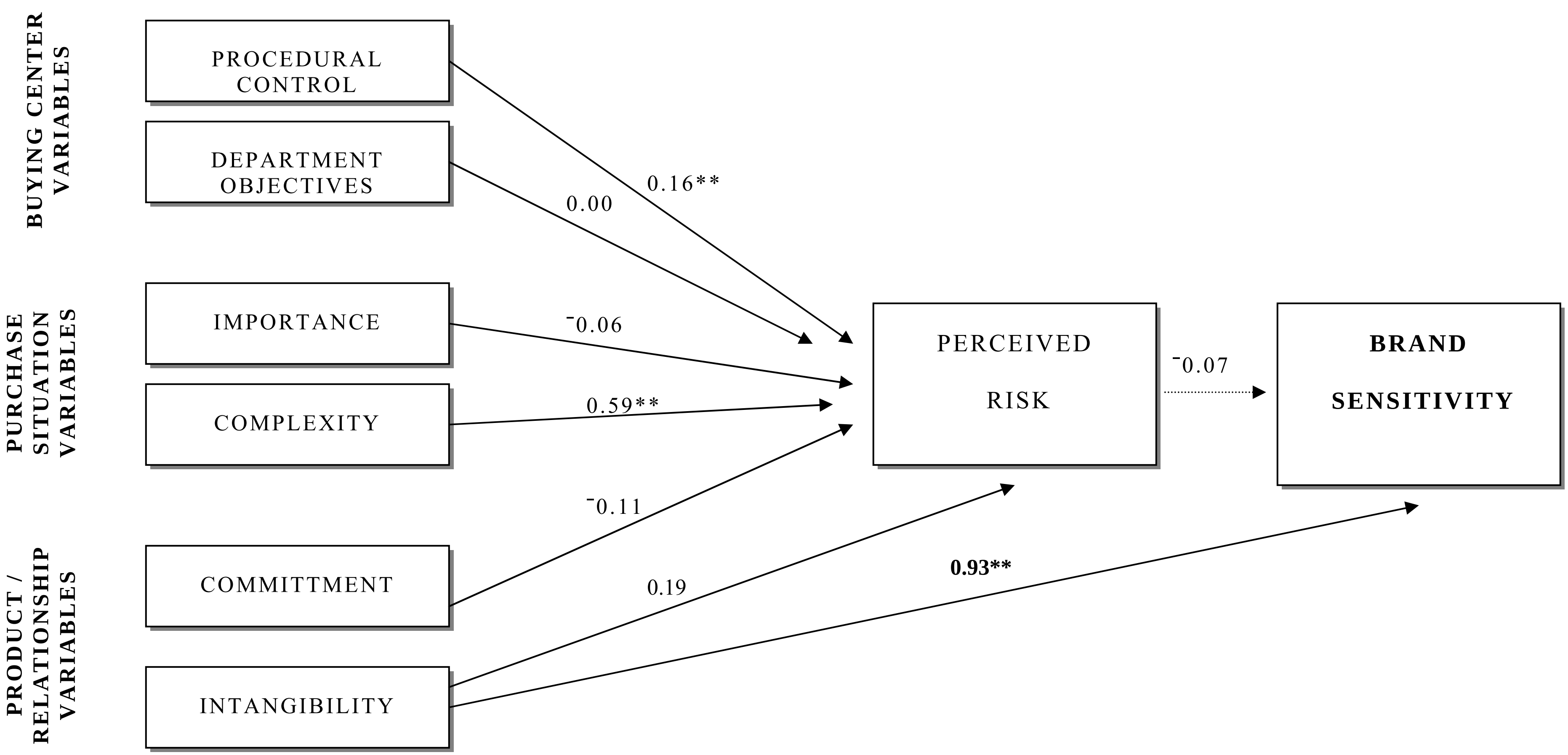
OBSERVED	BENCHMARKS
χ^2 = 2169.22	-
D.F. = 743	-
SRMR = 0.063	≤ 0.08
CFI = 0.95	≥ 0.95
RMSEA = 0.088	≤ 0.06

FIGURE 4
Partially Disaggregated Model (Main Model)



OBSERVED	BENCHMARKS
χ^2 = 610.80	-
D.F. = 254	-
SRMR = 0.049	$\leq$ 0.08
CFI = 0.96	$\geq$ 0.95
RMSEA = 0.075	$\leq$ 0.06

FIGURE 5
Alternative Model: The Mediating Effects of Perceived Risk



OBSERVED	**BENCHMARKS**
χ^2 = 758.98	-
D.F. = 354	-
SRMR = 0.052	≤ 0.08
CFI = 0.96	≥ 0.95
RMSEA = 0.065	≤ 0.06

APPENDIX A
Phase 1: Final Survey Instrument

Hello:

You are invited to complete our survey about how managers select the products that are bought for their businesses. It should take you approximately 15-20 minutes to complete it.

Your participation in this study is completely voluntary. There are no foreseeable risks associated with it. However, if you feel uncomfortable answering any questions, you can withdraw at any point. Keep in mind that your responses and all data from this research will be reported only in the aggregate. All information will be coded and will remain confidential. If you have questions at any time about the survey or its procedures, you may contact Brian Brown at the email address specified below.

Once you have completed the questionnaire, please allow 7-10 business days for your e-Rewards credit to appear in your account. Thank you for your time and candidness. Please start the survey now by clicking on the Continue button below.

Think about a recent work situation where you were a member of a buying team or committee responsible for selecting or recommending a particular product for your business. Please make sure that the buying scenario under consideration meets the following guidelines:

• The product fits in one of the following general categories: 1) materials/parts (e.g., raw materials, ingredients, manufactured materials, or parts), 2) capital items (e.g., equipment used in production/operations), or 3) operating supplies (e.g., repair/maintenance items).
• Your firm had purchased similar products in the past, but for some reason felt like it was time to consider other alternatives.
• The purchase was fairly expensive.

Please answer the following questions while thinking about only the above **GROUP BUYING SITUATION** and **PRODUCT**. Try to represent the viewpoints of your BUYING TEAM where indicated.

What was the product that you and your buying team were evaluating? Please type the product name and/or a brief description in the space below.

Please indicate your buying teams perceptions of the potential risks involved in the purchase situation that you are recalling.

	Very Low						**Very High**
Risk due to the performance/functionality of the product.	1	2	3	4	5	6	7
Risk due to the potential of financial loss or high costs.	1	2	3	4	5	6	7
Risk due to the potential that the product would not meet the approval of management or members of your peer group.	1	2	3	4	5	6	7
Overall risk of the purchase.	1	2	3	4	5	6	7

The following statements refer to the purchase situation that you are recalling. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
Our buying team had an established way of doing things for this purchase situation.	1	2	3	4	5	6	7
We had clear cut rules about how to make this purchase.	1	2	3	4	5	6	7
Responsibility was clearly defined for the accomplishment of each step of the purchase procedure in this situation.	1	2	3	4	5	6	7
When issues came up, there were existing guidelines about how to address them.	1	2	3	4	5	6	7

The following statements refer to the purchase situation that your are recalling. Indicate the extent to which you agree with the following statements. Compared to other purchases your firm makes, this product is:

Simple						**Complex**
1	2	3	4	5	6	7
Uncomplicated						**Complicated**
1	2	3	4	5	6	7
Not Technical						**Technical**
1	2	3	4	5	6	7
Easy to understand						**Difficult to understand**
1	2	3	4	5	6	7

The following statements refer to the purchase situation that you are recalling. Indicate the extent to which you agree with the following statements.

	Strongly Disagree					**Strongly Agree**
This purchase was necessary for our business.	1	2	3	4	5	6	7
We expected that this purchase would significantly improve our business.	1	2	3	4	5	6	7
This purchase was important to our overall profitability.	1	2	3	4	5	6	7
This purchase had important strategic implications.	1	2	3	4	5	6	7
We felt like this purchase was important for competitive reasons.	1	2	3	4	5	6	7

The following statements refer to the purchase situation that you are recalling. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
Because of the complex nature of this product, we had to involve more people than we usually do compared with other similar purchases.	1	2	3	4	5	6	7
The purchase of this product required a change in our processes and/or procedures.	1	2	3	4	5	6	7
This purchase required more time and effort than usual.	1	2	3	4	5	6	7
We had to gather more information before purchasing this product than we usually do for other similar purchases.	1	2	3	4	5	6	7

The following refers to the purchase situation that you are recalling. Indicate the extent to which you agree with the following statements. Compared to other purchases your firm makes, this product is:

Unimportant						**Important**
1	2	3	4	5	6	7
Nonessential						**Essential**
1	2	3	4	5	6	7
Low Priority						**High Priority**
1	2	3	4	5	6	7
Insignificant						**Significant**
1	2	3	4	5	6	7

The following statements refer to the purchase situation that you are recalling. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
We considered how this purchase would impact our organization's long-range profitability.	1	2	3	4	5	6	7
It was necessary to consider long-range purchasing objectives when making this purchase.	1	2	3	4	5	6	7
Future plans were an important issue in this purchase decision.	1	2	3	4	5	6	7
We needed to develop plans that considered possible long-term effects.	1	2	3	4	5	6	7

The following statements refer to the purchase situation that you are recalling. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
Because of the various alternatives, our supplier has to be very competitive.	1	2	3	4	5	6	7
Other suppliers could provide what we get from this firm.	1	2	3	4	5	6	7
This supplier almost has a monopoly for what it sells.	1	2	3	4	5	6	7
This is really the only supplier we could use for this product.	1	2	3	4	5	6	7
No other supplier has this supplier's capabilities.	1	2	3	4	5	6	7

The following statements refer to the supplier that was recommended. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
This supplier could be relied on to keep its promises.	1	2	3	4	5	6	7
This supplier put our interests first.	1	2	3	4	5	6	7
This supplier usually kept the promises that it made to my company.	1	2	3	4	5	6	7
We could count on this supplier to provide a quality product.	1	2	3	4	5	6	7

The following statements refer to the supplier that was recommended. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
Overall, I believe we were both quite satisfied with our relationship.	1	2	3	4	5	6	7
This was among the best supplier relationships that our company had.	1	2	3	4	5	6	7
We thought this supplier was pleased with our relationship.	1	2	3	4	5	6	7
I would say our relationship with this supplier couldn't have been much better.	1	2	3	4	5	6	7
We were happy with this relationship.	1	2	3	4	5	6	7

The following statements refer to the supplier that was recommended. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
We believed we were both committed to this relationship.	1	2	3	4	5	6	7
We had a strong sense of loyalty to this supplier.	1	2	3	4	5	6	7
This supplier was prepared to make short-term sacrifices to maintain our relationship.	1	2	3	4	5	6	7
We had made significant investments to build this supplier relationship.	1	2	3	4	5	6	7

The following statements refer to the product that was being purchased. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
This item was very easy to see and touch.	1	2	3	4	5	6	7
We could physically touch this item.	1	2	3	4	5	6	7
We were able to test this item.	1	2	3	4	5	6	7
This item made us consider different outcomes.	1	2	3	4	5	6	7
This item was very tangible.	1	2	3	4	5	6	7
We had enough product information to get a clear idea of what it would do.	1	2	3	4	5	6	7
We had a clear picture of this item.	1	2	3	4	5	6	7
The image of this item came to our mind right away.	1	2	3	4	5	6	7
This was the sort of item that was easy to picture.	1	2	3	4	5	6	7
This was an easy item to think about.	1	2	3	4	5	6	7

	Not very easy to understand						**Very easy to understand**
We felt that the value of this item was:	1	2	3	4	5	6	7

	Very abstract						**Very concrete**
We felt that this item was:	1	2	3	4	5	6	7

	Very general						**Very specific**
We feel that this item was:	1	2	3	4	5	6	7

The following statements refer to the brand of the product that you are recalling. For our purposes, **brand could mean the company's name, reputation, image, or awareness-level**.

Indicate the extent to which you agree with the following statements. Please report your perceptions of your buying team's attitudes and not just your personal opinions.

	Strongly Disagree						**Strongly Agree**
When we made this purchase, the brand name was considered.	1	2	3	4	5	6	7
When we recommended this product, we took the brand into account.	1	2	3	4	5	6	7
We chose this product based on its brand name.	1	2	3	4	5	6	7
With this purchase, the brand name was important to us.	1	2	3	4	5	6	7
When evaluating products like this, we prefer recommending well-known brands.	1	2	3	4	5	6	7
We would not have moved forward, if certain brands weren't available to us.	1	2	3	4	5	6	7

In evaluating suppliers, how important were each of the following criteria to your buying team?

Please divide 100 points between the following attributes in terms of the relative importance they played in the product selection process. Note: Allocating a larger number of points to an attribute would indicate it is relatively more important than an attribute with a smaller number of points.

Support services (e.g., pre-sale and post-sale services including training, maintenance, call center support)	
Functionality (e.g., precision, strength, durability, reliability)	
Brand name (e.g., reputation, how well known the manufacturer is, how others view it in general terms, company history, associations, loyalty level)	
Logistics and distribution (e.g., availability of product, ease of ordering, lead time, delivery reliability and convenience, capacity to handle the order)	
Price (e.g., quoted price, degree of discount, financial support services)	
Technology used (e.g., innovativeness, upgradeability, compatibility, ease of use, latest technology)	

*Values must add to 100

The following statements refer to the brand of the product that your buying team was evaluating. For our purposes, **brand could mean the company's name, reputation, image, or awareness-level**. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
The well-known global or national brands are best for our organization.	1	2	3	4	5	6	7
The more expensive brands are usually our firm's choices.	1	2	3	4	5	6	7
The higher the price of a product, the better its quality.	1	2	3	4	5	6	7
Well-known suppliers offer the best products to our firm.	1	2	3	4	5	6	7
We prefer buying the best-selling brands.	1	2	3	4	5	6	7
The most recognized brands are usually very good choices.	1	2	3	4	5	6	7
A product has to be considered the best to satisfy our organization.	1	2	3	4	5	6	7

The following statements refer to the brand of the product that your buying team was evaluating. For our purposes, **brand could mean the company's name, reputation, image, or awareness-level**. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
Even if they generally have the same specs, it makes sense to buy the brand we selected instead of other competing brands.	1	2	3	4	5	6	7
It seems smarter to purchase the brand we selected if another brand is not different in any way.	1	2	3	4	5	6	7
Even if another brand has the same specs, we'd prefer to buy the brand we selected.	1	2	3	4	5	6	7
We'd prefer to buy the brand that was selected even if there was another brand with the same specs.	1	2	3	4	5	6	7

Indicate your level of agreement with the following statement.

	Strongly Disagree						Strongly Agree
Less well-known/generic brands make an excellent alternative in my company's industry.	1	2	3	4	5	6	7

	Hardly Known						Very Well Known
Considering the product that you and your purchasing team were evaluating, how well-known was the brand of the product that you recommended?	1	2	3	4	5	6	7

	Very Inexpensive						Very Expensive
How expensive was the product that you recommended compared to the others that were evaluated?	1	2	3	4	5	6	7

The following statements refer to your department’s incentive program. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
My department’s bonus/incentive plan rewards cost savings improvements.	1	2	3	4	5	6	7
I feel that my management places more emphasis on cost-consciousness compared with quality-consciousness.	1	2	3	4	5	6	7
My supervisors worry about cutting costs more than other factors.	1	2	3	4	5	6	7
My department places more emphasis on costs-savings compared with quality control.	1	2	3	4	5	6	7

What was your buying teams opinion of the product it was responsible for selecting? Indicate the adjective that best reflects your perception. Please complete each row.

Unimportant						**Important**
1	2	3	4	5	6	7
Boring						**Interesting**
1	2	3	4	5	6	7
Irrelevant						**Relevant**
1	2	3	4	5	6	7
Exciting						**Unexciting**
1	2	3	4	5	6	7
Meant nothing to me						**Meant a lot to me**
1	2	3	4	5	6	7
Unappealing						**Appealing**
1	2	3	4	5	6	7
Routine						**Fascinating**
1	2	3	4	5	6	7
Valuable						**Worthless**
1	2	3	4	5	6	7
Uninvolving						**Involving**
1	2	3	4	5	6	7
Not needed						**Needed**
1	2	3	4	5	6	7

The following statements refer to your personal attitudes and behaviors. Indicate the extent to which you agree with the following statements.

	Strongly Disagree						**Strongly Agree**
I would rather be safe than sorry.	1	2	3	4	5	6	7
I want to be sure before I purchase anything.	1	2	3	4	5	6	7
I avoid risky things.	1	2	3	4	5	6	7

Which of the following best describes the use of the product you've been recalling?
1. For use in a completely new product.
2. For use in a modified or updated product
3. For use in an existing product, but with complicating factors.
4. For use in an existing product, with no major complicating factors.

Was the product that was recommended by your buying team or committee ultimately purchased?
1. Yes
2. No

Indicate your level of agreement with the following statements.

	Strongly Disagree						**Strongly Agree**
Our company would purchase from a new company offering the product.	1	2	3	4	5	6	7
Our company would only purchase from a new company if no established alternative existed.	1	2	3	4	5	6	7

Was the product for domestic (U.S.) use only?
1. Yes
2. No

Was the product purchased directly from the manufacturer, from a wholesaler, or from a distributor?
1. Purchased from manufacturer
2. Purchased from wholesaler
3. Purchased from distributor

Was the supplier based in the U.S. or outside of the U.S.?
1. Based in U.S.
2. Based outside of U.S.

	No consumer demand				**High consumer demand**
To what extent do end-consumers demand the brand of the product you selected?	1	2	3	4	5

Does your company have a written or unwritten policy regarding only doing business with companies that use its services?
1. Written policy
2. Unwritten policy
3. Not aware of such a policy

Was the ultimate purchase multi-sourced (split between more than one supplier)?
1. One supplier
2. More than one supplier

If multiple suppliers were used, what percentage of the purchase went to the supplier with the most well-known brand name?
1. 0 - 20%
2. 20% - 40%
3. 40% - 60%
4. 60% - 80%
5. 80% - 100%

Did the supplier you selected have a contract in place with your company?
1. Previous contract
2. No contract
3. Agreed to new contract

The remaining questions have to do with you and/or your company.

Gender
1. Male
2. Female

Age
1. Less than 25 years old
2. 25 - 34
3. 35 - 44
4. 45 - 54
5. 54 or older

Race
1. Caucasian/White
2. African-American/Black
3. Hispanic-American
4. Asian-American
5. Other

Education
1. Some high school
2. High school graduate
3. Some college/university
4. College/university graduate
5. Post-graduate degree
6. Doctoral level degree

Marital Status
1. Single
2. Reside with long-term partner
3. Married
4. Divorced
5. Widow/Widower

Number of Dependents
1. 0
2. 1 - 2
3. 3 - 4
4. More than 4

Income
1. Under $49,999
2. $50,000 - $99,999
3. $100,000 - $199,999
4. More than $200,000

How long have you been with your current company?
1. Under 1 year
2. 1 - 2 years
3. 3 - 4 years
4. 5 - 6 years
5. Over 6 years

Name of your department:

Your job title:

To what extent are you involved in purchasing materials for your organization?
1. Rarely involved
2.
3.
4.
5. Always involved

How many levels separate you from the principal/chief executive in your firm?
1. I am the principal/CEO.
2.
3.
4.
5. 5 or more

How many years of experience do you have in purchasing products/services (procurement)?
1. Less than 3 years
2. 3 - 6 years
3. 6 - 10 years
4. 11 - 15 years
5. 16 - 20 years
6. Over 20 years

What is your dollar responsibility when it comes to purchasing (procuring) products/services?
1. Less than $100K
2. $100K - $1MM
3. $1MM - $5MM
4. $5MM - $10MM
5. More than $10MM

How many years of experience have you had with the product you've been recalling?
1. Under 1 year
2. 1 - 2 years
3. 3 - 4 years
4. 5 - 6 years
5. Over 6 years

How would you categorize your company's industry?
1. Manufacturing
2. Services
3. Distribution
4. Other

Which of the following best describes the supplier environment you've been recalling?
1. Has no major brands.
2. Has a small number of major brands.
3. Has an even mix of major brands and less well-known brands.
4. Has many major brands.

What's the estimated size of your company?
1. 1-9 employees
2. 10-19 employees
3. 20-99 employees
4. 100-249 employees
5. 250-999 employees
6. 1000-4999 employees
7. More than 5000 employees

What are your company's estimated dollar sales?
1. Less than $1 million
2. $1million - $20 million
3. $20 million - $100 million
4. $100 million - $200 million
5. $200 million - $1 billion
6. More than $1 billion

Is your company public or private?
1. Public
2. Private

Which of the following best describes your company's ownership structure?
1. Wholly-owned/sole proprietorship
2. Partnership/LLC
3. Corporation
4. Other

If your company is public, what is its ticker symbol?

	Profit-oriented				Growth-oriented
How would you describe the focus of your company?	1	2	3	4	5

	Poorly				Extremely well
In your opinion, how well is your company performing?	1	2	3	4	5

In the space below, briefly explain why your buying team or committee recommended the product that you've been recalling.

	Not Consistent At All						Extremely Consistent
To what extent do you think your views on this purchase situation are consistent with those of others that were on the buying team?	1	2	3	4	5	6	7

APPENDIX B
Phase 2: Final Experiment Survey Instrument

Hello:

You are invited to complete our survey about how managers select the products that are bought for their businesses. The survey consists of 3 brief scenarios. You will be asked to reflect on the scenarios and answer several related questions. It should take you approximately 2-3 minutes to complete.

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. However, if you feel uncomfortable answering any questions, you can withdraw at any point.

Keep in mind that your responses and all data from this research will be reported only in the aggregate. All information will be coded and will remain confidential. If you have questions at any time about the survey or its procedures, you may contact Brian Brown at the email address specified below.

Once you have completed the questionnaire, please allow 7-10 business days for your e-Rewards credit to appear in your account. Thank you very much for your time and candidness. Please start with the survey now by clicking on the Continue button below.

Please read the following scenarios. While reading them, imagine yourself as a manager of an organization involved in a purchase evaluation. Specifically, play the role of someone on a buying team or committee charged with recommending the purchase of high speed, industrial pumps.

1) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. **Still, there are clearly defined procedures and guidelines on how to evaluate the new pumps. Consistent with your organization's bonus/incentive program and emphasis on quality control, the expectation is that the new pumps exceed current quality specifications.**

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

Based on what the above scenario suggests, indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
There is an established way of doing things for this purchase situation.							
There are clear cut rules about how to make this purchase.							
Responsibility will clearly be defined for the accomplishment of each step of the purchase procedure in this situation.							
When issues come up, there will be existing guidelines about how to address them.							

	Strongly Disagree						Strongly Agree
This company rewards cost savings improvements.							
Management places more emphasis on cost-consciousness compared with quality consciousness.							
Supervisors worry about cutting costs more than other factors.							
This company places more emphasis on cost-savings compared with quality control.							

5) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ, Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. The purchase of the new pumps is expected to significantly improve your company's performance and enhance its overall profitability. However, the integration of the new pumps is more technical than usual, and therefore is expected to be quite complicated.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ, Corp.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

What type of product is being evaluated in the above scenario? The product is:

	Unimportant						Important
	Nonessential						Essential
	Low Priority						High Priority
	Insignificant						Significant

What type of product is being evaluated in the above scenario? The product is:

	Simple						Complex
	Uncomplicated						Complicated
	Not Technical						Technical
	Easy to Understand						Difficult to Understand

9) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar products in the past, but feels like it is time to consider these newer alternatives. According to advertisements about the pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. You and your company have an established relationship with both companies; you have developed high levels of trust and made significant investments to build the relationship. Additionally, due to its new technology and processes, you well not be able to see and test the new pumps sine they must be customized for your companies business needs.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

What type of supplier relationship is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
The suppliers could be relied on to keep its promises.							
The suppliers will put your company's interests first.							
The suppliers will keep its promises.							
You can count on the suppliers to provide a quality product.							
Your company has a satisfactory relationship with the suppliers.							
The suppliers are pleased with their relationship with your company.							
Your company is happy with the supplier relationships.							
Both your company and the suppliers are committed to the relationship.							
Your company has a strong sense of loyalty to the suppliers.							
The suppliers are willing to make short-term sacrifices to maintain this business relationship.							
Both your company and the suppliers have probably made significant investments to build this business relationship.							

What type of product is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
The product is easy to see and touch.							
I'd be able to physically touch this product.							
I'd be able to test this product.							
This product is very tangible.							
There is enough product information to get a clear idea of what it would do.							
I have a clear picture of this product.							
This product is very easy to understand.							
This item is very concrete.							
This item is very specific.							

2) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Cell 2: Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. There are no clearly defined procedures and guidelines on how to evaluate the new pumps. And, consistent with your organizations bonus/incentive program and emphasis on quality control, the expectation is that the new pumps exceed current quality specifications.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

Based on what the above scenario suggests, indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
There is an established way of doing things for this purchase situation.							
There are clear cut rules about how to make this purchase.							
Responsibility will clearly be defined for the accomplishment of each step of the purchase procedure in this situation.							
When issues come up, there will be existing guidelines about how to address them.							

	Strongly Disagree						Strongly Agree
This company rewards cost savings improvements.							
Management places more emphasis on cost-							

consciousness compared with quality consciousness.							
Supervisors worry about cutting costs more than other factors.							
This company places more emphasis on cost-savings compared with quality control.							

6) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ, Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. But, they are not a high priority because they are not expected to impact performance or profitability. However, the integration of the new pumps is more technical than usual, and therefore is expected to be quite complicated.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ, Corp.

What type of product is being evaluated in the above scenario? The product is:

	Unimportant						Important
	Nonessential						Essential
	Low Priority						High Priority
	Insignificant						Significant

What type of product is being evaluated in the above scenario? The product is:

	Simple						Complex
	Uncomplicated						Complicated
	Not Technical						Technical
	Easy to Understand						Difficult to Understand

11) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar products in the past, but feels like it is time to consider these newer alternatives. According to advertisements about the pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. You and your company have an established relationship with both companies; you have developed high levels of trust and made significant investments to build the relationship. Additionally, you have seen and tested the pumps that will be customized for your company's systems.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree					Strongly Agree
The above scenario is quite realistic.						
The above scenario describes a very risky purchase.						

What type of supplier relationship is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree					Strongly Agree
The suppliers could be relied on to keep its promises.						
The suppliers will put your company's interests first.						
The suppliers will keep its promises.						
You can count on the suppliers to provide a quality product.						
Your company has a satisfactory relationship with the suppliers.						
The suppliers are pleased with their relationship with your company.						
Your company is happy with the supplier relationships.						
Both your company and the suppliers are committed to the relationship.						
Your company has a strong sense of loyalty to the suppliers.						
The suppliers are willing to make short-term sacrifices to maintain this business relationship.						
Both your company and the suppliers have probably made significant investments to build this business relationship.						

What type of product is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree					Strongly Agree
The product is easy to see and touch.						
I'd be able to physically touch this product.						
I'd be able to test this product.						
This product is very tangible.						
There is enough product information to get a clear idea of what it would do.						
I have a clear picture of this product.						
This product is very easy to understand.						
This item is very concrete.						
This item is very specific.						

3) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. As such, there are clearly defined procedures or guidelines on how to evaluate the new pumps. And, consistent with your organizations bonus/incentive program and emphasis on controlling costs, the expectation is that the new pumps will result in significant cost-savings.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

Based on what the above scenario suggests, indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
There is an established way of doing things for this purchase situation.							
There are clear cut rules about how to make this purchase.							
Responsibility will clearly be defined for the accomplishment of each step of the purchase procedure in this situation.							
When issues come up, there will be existing guidelines about how to address them.							

	Strongly Disagree						Strongly Agree
This company rewards cost savings improvements.							
Management places more emphasis on cost-consciousness compared with quality consciousness.							
Supervisors worry about cutting costs more than other factors.							
This company places more emphasis on cost-savings compared with quality control.							

7) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ, Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. The purchase of the new pumps is expected to significantly improve your company's performance and enhance its overall profitability. The integration of the pumps is not expected to be particularly technical, and therefore should be relatively simple.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ, Corp.

What type of product is being evaluated in the above scenario? The product is:

	Unimportant						Important
	Nonessential						Essential
	Low Priority						High Priority
	Insignificant						Significant

What type of product is being evaluated in the above scenario? The product is:

	Simple						Complex
	Uncomplicated						Complicated
	Not Technical						Technical
	Easy to Understand						Difficult to Understand

10) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar products in the past, but feels like it is time to consider these newer alternatives. According to advertisements about the pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. Neither you nor your company has any experience with either supplier. Additionally, due to its new technology and processes, you will not be able to see and test the new pumps since they must be customized for your company's business needs.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

What type of supplier relationship is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
The suppliers could be relied on to keep its promises.							
The suppliers will put your company's interests first.							
The suppliers will keep its promises.							
You can count on the suppliers to provide a quality product.							
Your company has a satisfactory relationship with the suppliers.							
The suppliers are pleased with their relationship with your company.							
Your company is happy with the supplier relationships.							
Both your company and the suppliers are committed to the relationship.							
Your company has a strong sense of loyalty to the suppliers.							
The suppliers are willing to make short-term sacrifices to maintain this business relationship.							
Both your company and the suppliers have probably made significant investments to build this business relationship.							

What type of product is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
The product is easy to see and touch.							
I'd be able to physically touch this product.							
I'd be able to test this product.							
This product is very tangible.							
There is enough product information to get a clear idea of what it would do.							
I have a clear picture of this product.							
This product is very easy to understand.							
This item is very concrete.							
This item is very specific.							

4) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. But, there are no clearly defined procedures and guidelines on how to evaluate the new pumps. And, consistent with your organizations bonus/incentive program and emphasis on controlling costs, the expectation is that the new pumps will result in significant cost-savings.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

Based on what the above scenario suggests, indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
There is an established way of doing things for this purchase situation.							
There are clear cut rules about how to make this purchase.							
Responsibility will clearly be defined for the accomplishment of each step of the purchase procedure in this situation.							
When issues come up, there will be existing guidelines about how to address them.							

	Strongly Disagree						Strongly Agree
This company rewards cost savings improvements.							
Management places more emphasis on cost-consciousness compared with quality consciousness.							
Supervisors worry about cutting costs more than other factors.							
This company places more emphasis on cost-savings compared with quality control.							

8) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ, Corp. This will be a relatively expensive purchase.

Your organization had bought similar pumps in the past, but feels like it is time to consider these newer alternatives. According to advertisements about these pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. But, they are not a high priority because they are not expected to impact performance or profitability. The integration of the new pumps is not expected to be particularly technical, and therefore should be relatively simple.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ, Corp.

What type of product is being evaluated in the above scenario? The product is:

	Unimportant						Important
	Nonessential						Essential
	Low Priority						High Priority
	Insignificant						Significant

What type of product is being evaluated in the above scenario? The product is:

	Simple						Complex
	Uncomplicated						Complicated
	Not Technical						Technical
	Easy to Understand						Difficult to Understand

12) Please read the below scenario then indicate the extent that you agree with the statements that follow.
Your organization is considering the purchase of a large quantity of newly developed, high speed pumps manufactured and distributed by ABC, Inc. and XYZ Corp. This will be a relatively expensive purchase.

Your organization had bought similar products in the past, but feels like it is time to consider these newer alternatives. According to advertisements about the pumps that you have read in the various trade journals, they promise to provide greater application, flexibility, and easier maintenance than your current models.

These pumps will be used for several new processes that your company will be working with for the first time. Neither you nor your company has any experience with either supplier. Additionally, you have seen and tested the pumps that will be customized for your company's systems.

Your involvement with this purchase will be to recommend either ABC, Inc. or XYZ Corporation.

	Strongly Disagree						Strongly Agree
The above scenario is quite realistic.							
The above scenario describes a very risky purchase.							

What type of supplier relationship is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
The suppliers could be relied on to keep its promises.							
The suppliers will put your company's interests first.							
The suppliers will keep its promises.							
You can count on the suppliers to provide a quality product.							
Your company has a satisfactory relationship with the suppliers.							
The suppliers are pleased with their relationship with your company.							
Your company is happy with the supplier relationships.							
Both your company and the suppliers are committed to the relationship.							
Your company has a strong sense of loyalty to the suppliers.							
The suppliers are willing to make short-term sacrifices to maintain this business relationship.							
Both your company and the suppliers have probably made significant investments to build this business relationship.							

What type of product is implied in the above scenario? Indicate the extent to which you agree with the following statements.

	Strongly Disagree						Strongly Agree
The product is easy to see and touch.							
I'd be able to physically touch this product.							
I'd be able to test this product.							
This product is very tangible.							
There is enough product information to get a clear idea of what it would do.							
I have a clear picture of this product.							
This product is very easy to understand.							
This item is very concrete.							
This item is very specific.							

The remaining questions have to do with you and/or your company.

Gender

1. Male
2. Female

Age

1. Less than 25 years old
2. 25 - 34
3. 35 - 44
4. 45 - 54
5. 54 or older

Race

1. Caucasian/White
2. African-American/Black
3. Hispanic-American
4. Asian-American
5. Other

Education

1. Some high school
2. High school graduate
3. Some college/university
4. College/university graduate
5. Post-graduate degree
6. Doctoral level degree

Name of your department:

Your job title:

	Never Involved						Always Involved
To what extent are you involved in purchasing materials for your company?							

REFERENCES

Anonymous (2006), "B2B Ad Revenue Increases 5.4% for 2005," *Business Publisher*, (accessed April 3, 2006), [available at www.goliath.ecnext.com].

---- (2001), "A Closer Look at B2B Advertising," (accessed April 5, 2006), [available at www.copernicusmareting.com].

Aaker, David A. (1996), *Building Strong Brands*. New York: The Free Press.

---- (1991), *Managing Brand Equity*. New York: The Free Press.

Achrol, Ravi Singh, Torger Reve, and Louis W. Stern (1983), "The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis," *Journal of Marketing*, 47, 55-67.

Ailawadi, Kusum L., Donald R. Lehmann, and Scott A. Neslin (2003), "Revenue Premium as an Outcome Measure of Brand Equity," *Journal of Marketing*, 67, 1-17.

American Marketing Association (2006), "2006 Outlook Positive for B2B Marketing," *Marketing Matters Newsletter*, (accessed April 5, 2006), [available at www.marketingpower.com].

Anderson, James C. and James A. Narus (1990), "A Model of Distributor Firm and Manufacturer Firm Working Partnerships," *Journal of Marketing,* 54, 42-58.

---- and ---- (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological Bulletin*, 103 (3), 411-23.

Bagozzi, Richard P. and Jeffrey R. Edwards (1998), "A General Approach for Representing Constructs in Organizational Research," *Organizational Research Methods*, 1 (1), 45-87.

Barclay, Donald W. (1991), "Interdepartmental Conflict in Organizational Buying: The Impact of the Organizational Context," *Journal of Marketing Research*, 28, 145-59.

Batra, Rajeev and Indrait Sinha (2000), "Consumer-Level Factors Moderating The Success of Private Label Brands," *Journal of Retailing*, 76 (2), 175-91.

Bauer, R. A. (1960). In *Consumer Behaviour as Risk Taking*. Chicago, IL: American Marketing Association.

Bhattacharya, C. B., Hayagreeva Rao, and Mary Ann Glynn (1995), "Understanding the Bond of Identification," *Journal of Marketing Research*, 59 (4), 46-57.

Bearden, William O. and Michael J. Etzel (1982), "Reference Group Influence on Product and Brand Purchase Decisions," *Journal of Consumer Research*, 9, 183-94.

Bendixen, Mike, Kalala A. Bukasa, and Russell Abratt (2004), "Brand Equity in the Business-to-Business Market," *Industrial Marketing Management*, 33, 371-80.

Berry, Leonard L. and Terry Clark (1986), "Four Ways to Make Services More Tangible," *Business*, 36 (October), 53-54.

Bettman, James R. (1973), "Perceived Risk and Its Components: A Model and Empirical Test." *Journal of Marketing Research,* 10, 184-190.

---- and C. W. Park (1980), "Implications of a Constructive View of Choice for Analysis of Protocol Data: A Coding Scheme for Elements of Choice Processes," *Advances in Consumer Research*, 7 (1), 148-153.

Blomback, Anna (2005), "Supplier Brand Image: A Catalyst for Choice," doctoral dissertation, Jonkoping International Business School.

Brown, Brian P., Danny N. Bellenger, and Wesley J. Johnston (2007), “The Implications of Business-to-Business and Consumer Market Differences for B2B Branding Strategy," forthcoming, *Journal of Business Market Management*.

Brown, Thomas J. (1998), "Corporate Associations in Marketing: Antecedents and Consequences," *Corporate Reputation Review*, 1 (3), 215-34.

---- and Peter A. Dacin (1997), "The Company and the Product: Corporate Associations and Consumer Product Responses," *Journal of Marketing*, 61 (1), 68-84.

Cannon, Joseph P. and Jr. Perreault, William D. (1999), "Buyer-Seller Relationships in Business Markets," *Journal of Marketing Research*, 36, 439-60.

Celsi, Richard L. and Jerry C. Olson (1988), "The Role of Involvement in Attention and Comprehension Processes," *Journal of Consumer Research*, 15 (2), 210-224.

Churchill, Gilbert A. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," *Journal of Marketing Research*, 16 (February), 64-73.

Conchar, Margy P., George M. Zinkhan, Cara Peters, and Sergio Olavarrieta (2004), "An Integrated Framework for the Conceptualization of Consumers' Perceived Risk Processing," *Journal of the Academy of Marketing Science*, 32 (4), 418-36.

Choffray, Jean.-Marie and Gary Lilien (1978), "Assessing Response to Industrial Marketing Strategy," *Journal of Marketing*, 42, 20-31.

Cordozo, Richard N. and James W. Cagley (1971), "An Experimental Study of Industrial Buyer Behavior," *Journal of Marketing Research*, 8, 329-34.

Darby, M. R. and E. Karni (1973), "Free Competition and the Optimal Amount of Fraud," *Journal of Law and Economics*, 16, 67-86.

de Chernatony, Leslie and Malcom McDonald (1998), *Creating Powerful Brands in Consumer, Service, and Industrial Markets*, 2nd ed. Oxford, England: Butterworth Heinemann.

DelVecchio, Devon and Daniel C. Smith (2005), "Brand-Extension Price Premiums: The Effects of Perceived Fit and Extension Product Category Risk," *Journal of the Academy of Marketing Science*, 33 (2), 184-96.

Donthu, Naveen and Adriana Garcia (1999), "Observations: The Internet Shopper," *Journal of Advertising Research*, 52-58

---- and David I. Gilliland (1996), "Observations: The Infomercial Shopper," *Journal of Advertising Research*, 69-76.

Dowling, Grahame R. and Richard Staelin (1994), "A Model of Perceived Risk and Intended Risk-Handling Activity," *Journal of Consumer Research* , 21, 119-134.

Duncan, Robert B. (1972), "Characteristics of Organizational Environments and Perceived Environmental Uncertainty," *Administrative Science Quarterly*, 17, 313-27.

Erdem, Tulin and Joffre Swait (1998), "Brand Equity as a Signaling Phenomenon," *Journal of Consumer Psychology*, 7 (2), 131-57.

------, Ying Zhao, and Ana Valenzuela (2004), "Performance of Store Brands: A Cross-Country Analysis of Consumer Store-Brand Preferences, Perceptions, and Risk," *Journal of Marketing Research*, XLI, 86-100.

Fern, Edward F. and James R. Brown (1984), "The Industrial/Consumer Marketing Dichotomy: A Case of Insufficient Justification," *Journal of Marketing*, 48, 68-77.

Feick, Lawrence F. and Linda L. Price (1987), "The Market Maven: A Diffuser of Marketplace Information," *Journal of Marketing*, 51 (1), 83-97.

Festinger, Leon (1954), "A Theory of Social Comparison Processes," *Human Relations*, 7, 117-140.

Fiegenbaum, Avi and Howard Thomas (1995), "Strategic Groups as Reference Groups: Theory, Modeling and Empirical Examination of Industry and Competitive Strategy," *Strategic Management Journal*, 16 (6), 461-76.

Fornell, Claes and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (February), 39-50.

Gerloff, Edwin A., Nan Kanoff Muir, and Wayne D. Bodensteiner (1991), "Three Components of Perceived Environmental Uncertainty: An Exploratory Analysis of the Effects of Aggregation," *Journal of Management*, 17 (4), 749-68.

Gilliland, David I. and Wesley J. Johnston (1997), "Toward a Model of Business-to-Business Marketing Communications Effects," *Industrial Marketing Management*, 26, 15-29.

Gordon, Geoffrey L., Roger J. Cantone, and C. Anthony di Benedetto (1993), "Brand Equity in the Business-to-Business Sector: An Exploratory Study," *The Journal of Product & Brand Management*, 2 (3), 4-16.

Grant, R. M. (1991), "The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation," *California Management Review*, 34, 114-135.

Greve, Henrich R. (1998), "Performance, Aspirations, and Risky Organizational Change," *Administrative Science Quarterly*, 43, 58-86.

Gronroos, C. (1978), "A Service-Oriented Approach to Marketing of Services," *European Journal of Marketing*, 12 (8), 588-601.

Hair, Joseph, Rolph Anderson, Ronald L. Tatham, and William Black (1998), *Multivariate Data Analysis*, 5th ed. Upper Saddle River, NJ: Prentice Hall.

Hakannson, H. (ed.) (1982), *International Marketing and Purchasing of Industrial Goods*. Chichester: J. Wiley.

Hawes, Jon M. and Scott H. Barnhouse (1987), "How Purchasing Agents Handle Personal Risk," *Industrial Marketing Management*, 16, 287-93.

Hawkins, Dell, Roger J. Best, and Kenneth A. Coney (2004), *Consumer Behavior: Building Marketing Strategy*, 9th ed. New York: The McGraw-Hill Companies, Inc.

Heide, Jan B. and Allen M. Weiss (1995), "Vendor Consideration and Switching Behavior for Buyers in High-Technology Markets," *Journal of Marketing*, 59, 30-43.

Heilman, Carrie M., Douglas Bowman, and Gordon P. Wright (2000), "The Evolution of Brand Preferences and Choice Behaviors of Consumers New to a Market," *Journal of Marketing Research*, 38, 139-55.

Henthorne, Tony L. and Michael S. LaTour (1992), "Perceived Risk in the Organizational Buyer Environment," *American Business Review*, 68-77.

Hu, Li-tze and Peter M. Bentler (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives," *Structural Equation Modeling*, 6 (1), 1-55.

Huber, Joel and Christopher P. Puto (1985), "Using Simple Gambles to Predict Complex Choices: A Test of Prospect Theory's Reflection Effect," *working paper*, Duke University.

Hunter, Gary K., Michele D. Bunn, and Jr. Perreault, William D. (2006), "Interrelationships among Key Aspects of the Organizational Procurement Process," *International Journal of Research in Marketing*, 23, 155-170.

Hutton, James G. (1997), "A Study of Brand Equity in an Organizational-Buying Context," *Journal of Product & Brand Management*, 6 (6), 428-39.

Jaccard, James and Choi K. Wan (1996), *LISREL Approaches to Interaction Effects in Multiple Regression*, Thousand Oaks, CA: Sage, Publications, Inc.

Jackson, Jr., Donald W., Janet E. Keith, and Richard K. Burdick (1987), "The Relative Importance of Various Promotional Elements in Different Industrial Purchase Situations," *Journal of Advertising*, 16 (4), 25-33.

Johnston, Wesley J. and Thomas V. Bonoma (1981), "The Buying Center: Structure and Interaction Patterns," *Journal of Marketing,* 45, 143-156.

----- and Jeffrey E. Lewin (1994), “A Review and Integration of Research on Organizational Buying Behavior,” In *Working Paper Series, Report No. 94-111*. Cambridge, MA, Marketing Science Institute.

Kapferer, J.N. and Laurent, G. (1988), “Consumer Brand Sensitivity: A Key to Measuring and Managing Brand Equity,” In *Defining, Measuring and Managing Brand Equity*. Ed. L. Leuthesser. Cambridge, MA: Marketing Science Institute, 12-15.

Katz, Daniel and Robert L. Kahn (1978), *The Social Psychology of Organizations*, 2nd ed. New York: John Wiley & Sons, Inc.

Keller, Kevin Lane (1993), "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity," *Journal of Marketing*, 57, 1-22.

---- and Donald R. Lehmann (2001), "The Brand Value Chain: Linking Strategic and Financial Performance," Tuck School of Business, Dartmouth College.

Kim, John, David A. Reid, Richard E. Plank, and Robert Dahlstrom (1998), "Examining the Role of Brand Equity in Business Markets: A Model, Research Propositions, and Managerial Implications," *Journal of Business-to-Business Marketing*, 5 (3), 65-89.

Kirk, Roger E. (1995), *Experimental Design: Procedures for the Behavioral Sciences*, 3rd ed. Pacific Grove, CA: Brooks/Cole Publishing Company.

Kogan, Nathan and Michael A. Wallach (1964), *Risk Taking: A Study in Cognition and Personality*, New York: Holt, Rinehart and Winston.

Kohli, Ajay K. and Bernard J. Jaworski (1990), "Market Orientation: The Construct, Research Propositions, and Managerial Implications," *Journal of Marketing*, 54, 1-18.

Kotler, Philip and Waldemar Pfoertsch (2006), *B2B Brand Management*, Berlin: Springer.

---- (1991), *Marketing Management: Analysis, Planning, and Control*, 8th ed. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Lachance, Marie J., Pierre Beaudoin, and Jean Robitaille (2003), "Adolescents' Brand Sensitivity in Apparel: Influence of Three Socialization Agents," *International Journal of Consumer Studies*, 27 (1), 47-57.

Lamons, Bob (2005), *The Case for B2B Branding*, Mason, OH: Thomson South-Western.

Laroche, Michel, Gordon H. G. McDougall, Jasmin Bergeron, and Zhiyong Yang (2004), "Exploring How Intangibility Affects Perceived Risk," *Journal of Service Research*, 6 (4), 373-89.

----, Jasmin Bergeron, and Christine Goutaland (2003), "How Intangibility Affects Perceived Risk: The Moderating Role of Knowledge and Involvement," *Journal of Services Marketing*, 17 (2), 122-40.

----, ----, and ---- (2001), "A Three-Dimensional Scale of Intangibility," *Journal of Service Research*, 4 (1), 26-38.

Lehmann, Donald R. and John O'Shaughnessy (1974), "Difference in Attribute Importance for Different Industrial Products," *Journal of Marketing*, 38, 36-42.

Leuthesser, Lance (1988), *Defining, Measuring, and Managing Brand Equity*, Marketing Science Institute, Cambridge, MA.

Levitt, Theodore (1967), "Communications and Industrial Selling," *Journal of Marketing*, 31, 15-21.

----- (1981), "Marketing Intangible Products and Product Intangibles," in *Harvard Business Review,* 59.

Lane, V. and R. Jacobson (1995), "Stock Market Reactions to Brand Extension Announcements: The Effects of Brand Attitude and Familiarity," *Journal of Marketing*, 59, 63-77.

Lazo, H. (1960), Emotional Aspects of Industrial Buying. In *Procedures of the American Marketing Association*, R. S. Hancock, ed. Chicago, IL: American Marketing Association, 265-270.

Low, John and Keith Blois (2002), "The Evolution of Generic Brands in Industrial Markets: The Challenges to Owners of Brand Equity," *Industrial Marketing Management*, 31, 385-92.

Lynch, Joanne and Leslie De Chernatony (2004), "The Power of Emotion: Brand Communication in Business-to-Business Markets," *Brand Management*, 11 (5), 403-19.

MacCrimmon, Kenneth R. and Donald A. Wehrung (1986), *Taking Risks: The Management of Uncertainty*, New York: The Free Press.

Mahajan, Vijay, Vithala Rao, and Rajendra K. Srivastava (1994), "An Approach to Assess the Importance of Brand Equity in Acquisition Decisions," *Journal of Product Innovation Management,* 11, 221-235.

Malaval, Philippe (2001), *Strategy and Management of Industrial Brands*, Boston: Kluwer Academic Publishers.

Martilla, John A. (1971), "Word-of-Mouth Communication in the Industrial Adoption Process," *Journal of Marketing Research*, 8, 173-78.

Massini, Silvia, Arie Y. Lewin, and Henrich R. Greve (2005), "Innovators and Imitators: Organizational Reference Groups and Adoption of Organizational Routines," *Research Policy*, 34, 1550-69.

McDougall, Gordon H. G., and Douglas W. Snetsinger (1990), "The Intangibility of Services: Measurement and Competitive Perspectives," *The Journal of Services Marketing*, 4 (4), 27-40.

McQuiston, Daniel H. (2004), "Successful Branding of a Commodity Product: The Case of RAEX LASER Steel," *Industrial Marketing Managemen*t, 33, 345-54.

----- (1989), "Novelty, Complexity, and Importance as Causal Determinants of Industrial Buyer Behavior," *Journal of Marketing,* 53, 66-79.

Meinck, Anne-Sibylle (2003), "Brand Equity Inside? The Role of Brand Equity in B2B Markets," doctoral dissertation, University of Maastricht.

Michell, Paul, Jacqui King, and Jon Reast (2001), "Brand Values Related to Industrial Products," *Industrial Marketing Management*, 30, 415-25.

Midgley, David F. (1983), "Patterns of Interpersonal Information Seeking for the Purchase of a Symbolic Product," *Journal of Marketing Research*, 20, 74-83.

Miller, Darryl W. and Jacque E. Foust (2003), "Classifying Services by Tangibility/Intangibility of Attributes and Benefits," *Services Marketing Quarterly*, 24 (4), 35-55.

Minett, Steve (2002), *B2B Marketing: A Radically Different Approach for Business-to-Business Marketers*. London: Pearson Education Limited.

Minium, Edward W., Robert B. Clarke, and Theodore Coladarci (1999), *Elements of Statistical Reasoning,* 2nd ed. New York: John Wiley & Sons, Inc.

Mitchell, Vincent-Wayne (1998), "Buy-Phase and Buy-Class Effects on Organisational Risk Perception and Reduction in Purchasing Professional Services," *Journal of Business & Industrial Marketing*, 13 (6), 461-78.

----- (1995), "Organizational Risk Perception and Reduction: A Literature Review," *British Journal of Management*, 6, 115-33.

Moller, K. E. Kristian and M. Laaksonen (1986), Situational Dimensions and Decision Criteria in Industrial Buying: Theoretical and Empirical Analysis, In *Advances in Business Marketing*, Vol. 1, Arch Woodside, ed. Greenwich, CT: JAI Press, 163-207.

Montgomery, Cynthia A. and Birger Wernerfelt (1992), "Risk Reduction and Umbrella Branding," *Journal of Business*, 65 (1), 31-50.

Morris, Barbara and Robert Johnston (1987), "Dealing with Inherent Variability: The Difference between Manufacturing and Service," *International Journal of Operations & Production Management*, 7 (4), 13-22.

Mudambi, Susan McDowell (2002), "Branding Importance in Business-to-Business Markets: Three Buyer Clusters," *Industrial Marketing Management*, 31, 525-33.

----, Peter Doyle, and Veronica Wong (1997), "An Exploration of Branding in Industrial Markets," *Industrial Marketing Management*, 26, 433-46.

Murphy, J. (1990), *Brand Strategy*, Cambridge, UK: Director Books.

Murray, Keith B. and John L. Schlacter (1990), "The Impact of Services versus Goods on Consumers' Assessment of Perceived Risk and Variability," *The Journal of the Academy of Marketing Science*, 18 (1), 51.

Nelson, Phillip (1970), "Information and Consumer Behavior," *Journal of Political Economy,* 78 (2), 311-329.

Newall, John (1977), "Industrial Buyer Behavior," *European Journal of Marketing,* 11 (3), 166-211.

O'Hara, Bradley S. (1993), "Evaluating the Effectiveness of Trade Shows: A Personal Selling Perspective," *Journal of Personal Selling & Sales Management*, 13 (3), 67-77.

Parasuraman, A. (1981), "The Relative Importance of Industrial Promotion Tools," *Industrial Marketing Management*, 10, 277-81.

Perry, Michael and B. Curtis Hamm (1969), "Canonical Analysis of Relations between Socioeconomic Risk and Personal Influence in Purchase Decisions," *Journal of Marketing Research*, 6, 351-54.

Petty, Richard E. and John T. Cacioppo (1986), *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*, New York: Springer-Verlag.

Pfeffer, Salancik (1978), *The External Control of Organizations: A Resource Dependence Perspective*, New York: Harper & Row, Publishers.

Podsakoff, Philip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff (2003), "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies," *Journal of Applied Psychology*, 88 (5), 879-903.

---- and Dennis W. Organ (1986), "Self-Reports in Organizational Research: Problems and Prospects," *Journal of Management*, 12 (4), 531-544.

Porter, Michael (1980), Competitive Strategy. New York: The Free Press.

Puto, Christopher P., Wesley E. Patton, and Ronald H. King. 1986. "Which Buying Decisions are Made by Individuals and not by Groups?," *Industrial Marketing Management*, 15, 129-138.

Qualls, William and Christopher P. Puto (1989), "Organizational Climate and Decision Framing: An Integrated Approach to Analyzing Industrial Buying Decisions," *Journal of Marketing Research*, 26 (2), 179-192.

Raggio, Randle D. and Robert P. Leone (2006), "The Theoretical Separation of Brand Equity and Brand Value," *working paper*, Fisher College of Business, The Ohio State University.

Rao, Akshay R. and Kent B. Monroe (1988), "The Moderating Effect of Prior Knowledge on Cue Utilization in Product Evaluations," *Journal of Consumer Research*, 15 (2), 253-264.

Reinartz, Werner and V. Kumar (2000), "On the Profitability of Long Lifetime Customers: An Empirical Investigation and Implications for Marketing," *Journal of Marketing*, 64, 17-35.

Riezebos, R. (2003), *Brand Management: A Theoretical and Practical Approach*, Harlow, England: Pearson Education.

Robinson, Patrick. J., Charles W. Faris, and Yoram Wind (1967), *Industrial Buying and Creative Marketing*, Boston, IL: Ally and Bacon, Inc.

Rosenbroijer, C. J. (2001), "Industrial Brand Management: A Distributor's Perspective in the UK Fine-Paper Industry," *Journal of Product & Brand Management,* 10, 7-24.

Rust, Roland T., Katherine N. Lemon, and Valarie A. Zeithaml (2004), "Return on Marketing: Using Customer Equity to Focus Marketing Strategy," *Journal of Marketing*, 68, 109-27.

----, Valarie A. Zeithaml, and Katherine N. Lemon (2004), "Customer-Centered Brand Management," *Harvard Business Review*, 82, 110-18.

----, ----, ---- (2000), *Driving Customer Equity: How Customer Lifetime Value is Reshaping Corporate Strategy*, New York: The Free Press.

Schouten, John W. and James H. McAlexander (1995), "Subcultures of Consumption: An Ethnography of the New Bikers," *Journal of Consumer Research*, 22 (1), 43-61.

Shapira, Z. 1986. “Risk in Managerial Decision Making,” *unpublished manuscript*.

Sheth, Jagdish (1973), "A Model of Industrial Buyer Behaviour," *Journal of Marketing*, 37, 50-56.

----- and M. Venkatesan (1968), "Risk-Reduction Processes in Repetitive Consumer Behavior," *Journal of Marketing Research*, 5, 307-10.

Shipley, D. and P. Howard (1993), "Brand-Naming Industrial Products," *Industrial Marketing Management*, 22, 59-66.

Shocker, Allan D., Rajendra K. Srivastava, and Robert W. Ruekert (1994), "Challenges and Opportunities Facing Brand Management: An Introduction to the Special Issue," *Journal of Marketing Research,* 31, 149-158.

Shostack, G. Lynn (1977), "Breaking Free from Product Marketing," *Journal of Marketing,* 41, 73-80.

Smith, Kirk (1998), "Service Aspects of Industrial Products Lead to Future Product Purchase Intentions," *Industrial Marketing Management*, 27, 83-93.

Spekman, Robert E. and Louis W. Stern (1979), "Environmental Uncertainty and Buying Group Structure: An Empirical Investigation," *Journal of Marketing*, 43, 54-64.

Sproles, George B. and Elizabeth L. Kendall (1986), "A Methodology for Profiling Consumers' Decision-Making Styles," *The Journal of Consumer Affairs*, 20 (2), 267-79.

Srivastava, Rajendra K. and Allan D. Shocker (1991), "Brand Equity: A Perspective on its Meaning and Measurement," In *Working Paper Series*. Cambridge, MA, Marketing Science Institute.

Stafford, Maria Royne (1996), "Tangibility in Services Advertising: An Investigation of Verbal versus Visual Cues," *Journal of Advertising*, 23 (3), 13-28.

Stone, Philip M. (2006), (accessed April 5, 2006), [available at www.followthemedia.com].

Stone, Robert N. and Kjell Gronhaug (1993), "Perceived Risk: Further Considerations for the Marketing Discipline," *European Journal of Marketing*, 27 (3), 39-50.

Tarn, David D. C. (2005), "Raising Services' Tangibility in Foreign Markets via Marketing: A Model Construction and a Cross-National Comparative Empirical Survey," *International Market Review*, 22 (3), 327-52.

Traynor, K. and S. Traynor (1989), "Marketing Approaches Used by High Tech Firms," *Industrial Marketing Management*, 18, 281-287.

Turley, L.W. and Scott W. Kelley (1997), "A Comparison of Advertising Content: Business to Business Versus Consumer Services," *Journal of Advertising*, 26 (4), 1997.

Valla, J.-P. (1982), "The Concept of Risk in Industrial Buying Behaviour," Presented at *Workshop on Organisational Buying Behaviour*, European Institute for Advanced Studies in Management, Brussels, December 9-10.

van Riel, Cees B. M. and Gerrit H. van Bruggen (2002), "Incorporating Business Unit Managers' Perspectives in Corporate-Branding Strategy Decision Making," *Corporate Reputation Review*, 5 (2/3), 241-51.

Verhoef, Peter C., Philip Hans Franses, and Janny C. Hoekstra (2002), "The Effect of Relational Constructs on Customer Referrals and Number of Services Purchased from a Multiservice Provider: Does Age of Relationship Matter?," *Journal of the Academy of Marketing Science*, 30 (Summer), 202-16.

Ward, S., L. Light, and J. Goldstine (1999), "What High-Tech Managers Need to Know about Brands," *Harvard Business Review*, 77, 85-95.

Webster, Jr., Frederick E. (1970), "Informal Communication in Industrial Markets," *Journal of Marketing Research*, 7, 186-89.

---- and Kevin Lane Keller (2004), "A Roadmap for Branding in Industrial Markets," *Brand Management*, 11 (5), 388-402.

---- and Yoram Wind (1972), *Organizational Buying Behaviour*. Englewood Cliffs, NJ, Prentice-Hall.

Wind, Yoram. (1976), "Preferences of Relevant Others and Individual Choice Models," *Journal of Consumer Research,* 3, 50-57.

Woodside, Arch G. (1972), "Informal Group Influence on Risk Taking," *Journal of Marketing Research*, 9, 223-25.

Yoo, Boonghee and Naveen Donthu (2001), "Developing and Validating a Multidimensional Consumer-Based Brand Equity Scale," *Journal of Business Research*, 52, 1-14.

Zeithaml, Valarie A. (1981), "How Consumer Evaluation Processes Differ between Goods and Services," in *Marketing of Services*, J. H. Donnelly and W. R. George, eds. Chicago: American Marketing Association.