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Over the past few years, changes in the competitive landscape of retail marketing have resulted in a synergy effect. This synergy effect has motivated firms to enter into a strategic alliance. Many industries, such as the technology and fashion industries, have recognized the benefits both parties may gain by engaging in a strategic alliance to develop products and/or services that provide greater value for their customers. While several studies have examined consumers' adoption of innovative products, these previous studies have focused on innovation as related to either technological or fashion products. There is no known study that has examined consumers' adoption of a product that possesses both attributes (i.e., technology and fashion). Therefore, the purpose of the current study is to assess the effects of an external variable, i.e., consumer characteristics (consumer innovativeness and fashion orientation), on consumers' adoption of an innovative product among young consumers who grew up with a advanced technology and a sophisticated fashion transition

Data were collected from a convenience sample of undergraduate students between the ages of 18 to 26. The final sample consisted of 196 college students. Of these, approximately 88% were female, approximately 63% were Caucasians and an average age of participants was 20.40 years old. A series of multiple regressions was employed to answer all hypotheses. Results revealed that domain-specific innovativeness related to the technology and fashion domain has a significant effect on consumers' utilitarian and

hedonic attitudes, respectively. We also found that in terms of the relationship between the dimensionality of fashion orientation and consumer's attitudes, consumers' utilitarian attitudes are positively influenced by the importance of being well-dressed and consumers' hedonic attitudes were negatively influenced by an anti-fashion sentiment. In addition, we found that two dimensions of consumers' attitudes (utilitarian and hedonic) significantly influence consumers' adoption of a product. Lastly, among young consumers, results revealed that the opinions of significant others play an important role in influencing their purchase intention. Implications are provided. Limitations and future research directions are also discussed.

AN EMPIRICAL EXAMINATION OF CONSUMERS' INNOVATION ADOPTION:
THE ROLE OF INNOVATIVENESS, FASHION ORIENTATION, AND
UTILITARIAN AND HEDONIC CONSUMERS' ATTITUDES

by

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CHAPTER I

INTRODUCTION

Background

Consumer Technology Market

Since the 1990s, the majority of American domestic firms have entered an international market, and this flood of activity has led to heavy competition. This competitive market environment, particularly for technological products (e.g., cellular phones, computers), has pushed these companies to be innovative and constantly up-grade their products in order to remain viable in the market. The nature of technological products (i.e., product characteristics) may have caused some consumers to hesitate before adopting these products, and thus the technology market seems to possess a certain degree of uncertainty (Moenaert & Souder, 1990; Roger, 2003). This uncertainty may partly be due to companies' lack of understanding regarding their target consumers' needs. As a result, many companies have become aware of the importance of their target market, which consequently has encouraged them to revamp their marketing efforts in an attempt to re-connect with their target consumers, particularly those who belong to a group regarded as the "connected generation" (Johnson, 2006, p. 4). To meet the needs of this "connected generation," which includes Generation X and Generation Y in the global business landscape, marketers needed to create new and innovative marketing strategies. In particular,

Generation Y, also called the millennium generation, or the Internet generation, has been considered the most dominant group in this environment (Eisner, 2005).

In addition, over the past few years, changes in the competitive landscape of retail marketing have resulted in a synergy effect, which is defined as “the interaction of two or more agents or forces so that their combined effect is greater than the sum of their individual effect” (Chang & Thorson, 2004, p. 75). This synergy effect has motivated firms to enter into a strategic alliance where “a cooperative arrangement between two or more independent firms” has been implemented in order for these companies to exchange or share resources to achieve a similar goal, such as gaining a competitive advantage (Huang, Tzeng, & Ong, 2006, p. 1216). Many industries, such as the technology and fashion industries, have recognized the benefits both parties may gain by engaging in a strategic alliance to develop products and/or services that provide greater value for their customers. For instance, LG Telecom, the world’s leading electronic company, recently collaborated with Prada, a luxury apparel brand, to create a “Prada Mobile Phone,” featuring a high-tech buttonless touch screen with a distinctive, fashionable design (Ramstad & Fowler, 2007). Strategic alliances between two parties are likely to enhance a product’s strengths; the combination of a high-tech product with a fashionable appearance may attract consumers. Accelerated use of alliance marketing has created a paradigm shift, and as a result, many companies with different product focuses have collaborated for competitive advantage. Such a strategy tends to advance both companies’ potential worldwide success because their cooperation may create a greater product than an individual firm can do alone. In fact, many distinctive, innovative products and services have

been created by these collaborative companies in an attempt to differentiate themselves from their competitors.

Given the importance of strategic alliance as recognized by many of today's companies, it seems natural that these companies would want to better understand the needs of their target market to successfully serve customers via innovation. While several studies have examined consumers' adoption of innovative products, these studies have focused on innovation as related to either technological or fashion products (Hirunyawipada & Paswan, 2006; Muzinich, Pecotich & Putrevu, 2003; Venkatraman, 1991). There is no known study that has examined consumers' adoption of a product that possesses both attributes (i.e., technology and fashion). Today's consumers want a product that is functional and practical, but they also want it to be fashionable and attractive at the same time. This trend has brought more attention to young consumers who grew up with advanced technology and a sophisticated fashion transition. The current study focuses on young consumers' adoption of an innovative product that possesses both technological and fashion attributes. It is asserted that understanding consumers' adoption of a product based on these two important attributes (i.e., technological and fashion) can be explained through consumer characteristics, such as innovativeness and fashion orientation. As several researchers have suggested, considering innovativeness and fashion orientation may help to better understand the underlying fundamentals of consumer product adoption (Hirunyawipada & Paswan, 2006; Muzinich et al., 2003; Simonson & Nowlis, 2000). Additionally, in order to examine consumer product adoption, consumers' attitudes toward using a product will be predicted because consumers' attitudes are a good predictor of

their behavior (Ajzen, 1985; Fishbein & Ajzen, 1975). While some consumer researchers have treated consumers' attitudes as one-dimensional construct (Osgood, Suci, & Tannenbaum, 1957), others have argued that consumers' attitudes are multidimensional (Bagozzi & Burnkrant, 1979; Eagly & Chaikan, 1993). As Batra and Ahtola (1990) stated, "consumers purchase goods and services and perform consumption behaviors for two basic reasons: (1) consummatory affective (hedonic) gratification (from sensory attributes) and (2) instrumental, utilitarian reasons" (p. 159). Therefore, in the current study, consumers' attitudes will be investigated from a two-dimensional approach: utilitarian (using a product for functional benefits) and hedonic (using a product for experiential benefits) (Batra & Ahtola, 1990; Dhar & Wertenbroch, 2000; Voss, Spangenberg, & Grohmann, 2003). Such utilitarian and hedonic dimensions of attitudes are important components to predict consumers' behavior. There is another important component predicting consumers' behavior which is so called subjective norms. The concept of subjective norm may be critical in predicting behaviors of Generation Y consumers because these young consumers tend to be receptive to social influences (Chang, Burns, & Noel, 1996; Shimp & Kavas, 1984). Thus, subjective norms and utilitarian and hedonic attitudes are employed in this study to predict Generation Y consumers' behavior.

Generation Y and Consumption Patterns

Generation Y, a group born between 1980 and 1997 (Johnson, 2006) has been referred to as the Echo Boomers, Millennials, Internet Generation, and Nexters (Eisner, 2005; Johns, 2003; Neuborne & Kerwin, 1999; Stapinski, 1999). There are approximately 74.2 million Americans who are considered members of Generation Y (Johnson, 2006). One

of the more recognizable and empowered subgroups within Generation Y is college students, the best-educated and most culturally and racially diverse generation in American history (Wolburg & Pokrywczynski, 2001). In spite of their young age, these individuals are socially involved and achievement-oriented with their career development (Clark, Deziel, McClelland, & Oh, 1999). They frequently volunteer in their communities and expect to achieve a high standard of living after graduation. According to Thau (1996), Generation Y has low trust in the government and our nation's economic prospects. However, a majority of them are positive about their own financial prospects. They grew up in single-family households with few siblings and 75% had a working mother (Neuborne & Kerwin, 1999). Because many held after-school jobs, they shouldered financial responsibility at an early age. However, currently the number of Generation Y young adults living with their parents is growing because they want to reduce their housing expenses and spend more money on nice clothing and cars (Clark et al., 1999; Solomon, 2007). Their resultant large portion of discretionary income encourages them to spend money on electronics and fashion items.

Furthermore, Generation Y consumers have grown up in a media-saturated environment showcasing items such as the Internet, television, and cell phones. Because they are technology-savvy, they easily adopt networked communities. Based on these main characteristics, these young college consumers are likely to be classified as early adopters (Wolburg & Pokrywczynski, 2001). They have also been called an "activist group" because they are more upbeat, optimistic, and idealistic than any other generation (Stapinski, 1999; Wolburg & Pokrywczynski, 2001). According to Reese (1997), Generation Y is

more interested in new TV programs and magazines than reading newspapers. Television and magazine advertisements thus have a great impact on this group due to their active consumption of proliferative media that provide them with information and entertainment simultaneously. Similarly, the Internet is a vital source that has a great deal of impact on their buying habits; Generation Y often enables the creation or disappearance of new brand-name products within a few months after they hit the market (Johnson, 2006). Since on-line shopping emerged, their consumption has increased at a faster rate than in the past. Because Generation Y consumers are much less brand-loyal than other generations, they are more likely to change brands along with their mood (Solomon, 2007). The market for “feel-good” products, such as CDs, concert tickets, posters, designer jeans, and cosmetics, is growing with this group.

Generation Y seems to be a prime target market for many technological and fashionable products because members of this group not only appreciate technology and fashion, but also possess great spending power of \$170 billion a year (Solomon, 2007). Since Generation Y will heavily influence markets in the near future, there is a need to study Generation Y individuals’ adoption of innovative products. Although the entire connected generation, which includes both Generation X and Generation Y, has a major role in the market, Generation Y is three times the size of Generation X (Cheng, 1999). These Generation Y individuals are also likely to drive the market to stock “fresh, compelling, well-designed, and customized quality products, as opposed to Boomers” (Johnson, 2006, p. 6). Consumer market analysts predict that Generation Y members will soon have a greater purchasing power than any prior generation (Martin & Tulgan, 2004). It is

important to study the behavior and consumption patterns of Generation Y individuals with regard to innovative collaborative products.

Purpose of the Study

Although the strategic alliance method seems to be well-accepted among participating companies, little is known about consumers' attitudes. Since it is not yet known whether these products and services affect consumers' attitudes and behavioral intentions in the way these companies anticipate, it is necessary to examine consumer adoption patterns of an innovative product resulting from an alliance among independent companies. Therefore, the purpose of the current study is to assess the effects of an external variable, i.e., consumer characteristics (consumer innovativeness and fashion orientation), on consumers' adoption of an innovative product. Specifically, this study has the following research objectives.

1. To explore the effects of consumer innovativeness and fashion orientation on consumers' attitudes toward using an innovative product;
2. To examine the effect of consumers' attitudes toward using an innovative product on their behavioral intention to adopt that product; and
3. To investigate the effect that the perceived importance of significant others (i.e., subjective norms) has on consumers' behavioral intention to adopt an innovative product.

Significance of the Study

This study is expected to provide two key contributions to the field. This study will attempt to theoretically validate external variable--attitudes and subjective norms--models of purchase behaviors in the context of an innovative product. In addition, it will attempt to provide empirical support for the effect of consumer innovativeness (i.e., global versus domain-specific innovativeness) and fashion orientation on consumers' attitudes and behavioral intentions. As Chau and Hui (1998) suggest, consumer innovativeness can be an intrinsic motivator to the adoption of new products. In addition, lifestyle and fashion orientation are significant factors in consumption (Gutman & Mills, 1982). Understanding the underlying factors affecting consumers' attitudes and purchase intentions helps retailers develop and redefine their marketing campaigns.

In addition, this study is the first to examine consumers' attitudes toward using a product by focusing on two major dimensions of attitude, utilitarian and hedonic. A number of researchers suggest that consumers use products and/or services either to gain gratification from sensory attributes of the product, receive instrumental value from functional attributes of the product, or a mixture of both (Batra & Ahtola, 1990; Voss et al., 2003). However, consumers' decisions toward using a product or service is not only likely to be influenced by affective and functional attributes, but also controlled by significant others (i.e., friends, peers) (Al-Rafee & Cronan, 2006). Given that the current study focuses on Gen Ys, it is expected that this study will enrich our understanding of the role played by attitudes (utilitarian and hedonic) and subjective norms and their impact on Generation Y consumers' behaviors. Since utilitarian and hedonic attitudes and subjec-

tive norms motivate or reduce the individuals' consumption behaviors, it is important for marketers to examine and predict the effects of consumer behavior (Park, Jaworski, & MacInnis, 1986).

Definition of Terms

The following are definitions of key terms used in this study

Terminology	Descriptions
Actual Behavior	The individual's intention to behave in a certain way, where neither the intention nor the behavior is spontaneous (Fishbein & Ajzen, 1975)
Attitude toward Behavior	Individual's belief that the behavior leads to certain outcomes and his or her subsequent evaluation of these outcomes (Bailey, 2006)
Cognitive Innovativeness	Pays attention to explanations and facts, as well as learning how things work and how to do new things to inspire these mental activities (Pearson, 1970)
Domain-specific Innovativeness	"Narrowly defined trait toward products category" (Hirunyawipada & Paswan, 2006, p. 184)
Fashion	"A continuing process of change in the styles of dress at any given time and place" (Jarnow & Judelle, 1965, p. 3)
Fashion Orientation	The meaning of clothing-fashion in people's life-style
Generation Y	A group born between 1980-1997, also known as Echo Boomers, Millenials, and Nexters (Johnson, 2006)
Global Innovativeness	A generalized personality trait aids the innovative characteristics of individuals (Kirton, 1976)
Hedonic Consumption	Experiential performance involving sensory experience of aesthetic and excitement (Dhar & Wertenbroch, 2000)

Innovation Innovator	The beginning of something new (Merriam-Webster Dictionary). 2.5% of the total population tends to favor taking risks (Solomon, 2007).
Intention	“A person’s location on a subjective probability dimension involving a relation between himself and some action” (Fishbein & Ajzen, 1975, p. 288)
Sensory Innovativeness	Affective motives that produce the feeling of satisfaction by reaching emotional goals (McGuire, 1976; Venkatraman & Price, 1990)
Strategic Alliance	“A cooperative arrangement between two or more independent firms that exchange or share resources for competitive advantage” (Huang, Tzeng, Ong, 2006, p. 1216)
Subjective Norms	The person’s beliefs that others who are important to that person think he or she should or should not perform a behavior (Ajzen & Fishbein, 1980)
Synergy Effect	“The interaction of two or more agents or forces so that their combined effect is greater than the sum of their individual effect” (Chang & Thorson, 2004, p. 75)
Technological Innovativeness	Developing process with innovative ideas toward the product class and new goods with interrelated information
Technology Market	Made up of technology-driven products, including consumer electronics and telecommunication goods and services
Theory of Reasoned Action	A theory from Fishbein and Ajzen (1975) which is an extended Fishbein Model that provides the most comprehensive integration of attitude components (i.e., cognitive, affective, conative) into a model that offers better explanation and prediction of behavior (Hoyer & MacInnis, 2007).
Utilitarian Consumption	Fundamental performance in human needs that can be cognitively driven to affect attitudes and behaviors (Schwartz & Bilsky, 1990)

Organization of the Study

Chapter 1 laid a foundation by providing the background for the study, which overviewed the development of each of the subsequent studies. This chapter also addresses the research objectives for each study as well as the significant contributions that each study can provide.

In Chapter 2, a review of the relevant literature is provided. The literature addresses the value orientation of global innovativeness, domain-specific innovativeness, fashion orientation, utilitarian and hedonic attitudes, subjective norms, and intentions and actual behavior. The conceptual model and development of hypotheses are also delineated.

Chapter 3 covers the study methodology, including samples, development of questionnaires and statistical analysis.

Chapter 4 presents the study analysis and findings. In addition, a discussion of findings related to each hypothesized relationship in the study is provided.

Chapter 5 offers discussions, conclusions and implications derived from the study's findings. In addition, research limitations and future research directions are suggested.

CHAPTER II

LITERATURE REVIEW

This chapter reviews the relevant literature that seeks to answer the research objectives discussed in the previous chapter. The literature review represents the following topics: (1) the Diffusion of Innovations; (2) Fashion Orientation; (3) the Consumer Attitude-Behavioral Model. This information is then utilized as a foundation in developing testable hypotheses.

Diffusion of Innovation

Innovation is the beginning of something new, such as a new idea, method, or device (Merriam-Webster Inc., 1998). Rogers (2003), who is the author of *Diffusion of Innovations*, defines an innovation as “an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (p. 12). The perception is important to this definition. The idea, practice, or object does not have to be new on the market; it only has to be perceived as new by an individual in order for it to be considered an innovation for the individual. Therefore, depending upon how the idea, practice, or object is perceived, at any given point in time, the same idea, practice, or object might be considered an innovation by some individuals, and might not be considered as innovation by others.

Robertson (1968) categorizes innovations into three types of innovations based on the degree to which they demand changes in the behavior of adopters in social structures.

They are as follows:

1. A continuous innovation

A continuous innovation refers to an existing product with a slight modification rather than an establishment of the totally new one. This type of innovation has a very limited impact on existing consumption patterns. Most of products fall into this category (e.g., a new flavor for toothpaste, a new design for iPod, a latest version of Microsoft Office).

2. A dynamically continuous innovation

A dynamically continuous innovation refers to a product with a significant change of an existing one. However, the type of innovation does not significantly alter consumption patterns and often incorporates technology. Examples include digital camera, and disposable diapers.

3. A discontinuous innovation

A discontinuous innovation refers to a product that is generally introduced as a new product that significantly alters consumption patterns and lifestyles.

This type of a product creates a major change in the way people live in a society. As a result, it requires a great deal amount of new learning. Examples include television, computers, and automobiles.

Rogers (2003) further states that this classification scheme of an innovation is very important when examining adoption behavior because the type of innovation has

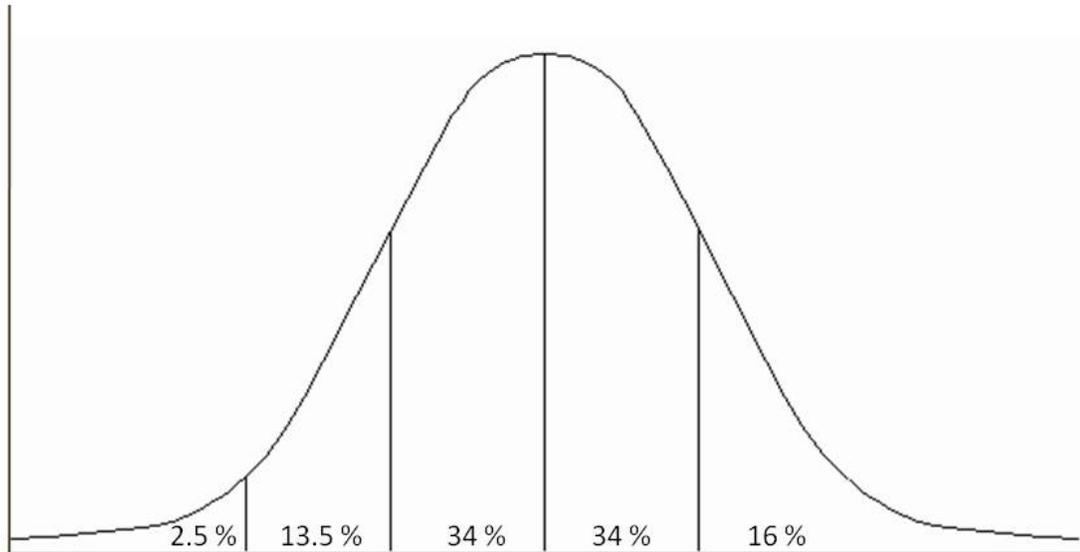
different degrees of impact on the level of consumer or society's interest and the type of knowledge required to learn about a new product/services.

The new idea or innovation is diffused by communicating through certain channels over time among the members of a social system, or so-called "diffusion of innovations" (Rogers, 1995). It is suggested that the diffusion of innovation process consists of four key components: an innovation, communication channels, time, and the social system. Consumer researchers are primarily interested in understanding two closely related processes; the diffusion and the adoption (Rogers, 1995). While the diffusion process is a macro process that deals with the spread of a new innovation from its source to the consuming public, the adoption process is a micro process that focuses on the stages through which an individual consumer passes when deciding to accept or reject a new product.

Adopter Categories

Adopters are classified into different categories based on time when they decide to adopt a new product (see Figure 1). This classification scheme can be used to indicate where a consumer stands in relation to other consumers related to a new product adoption and time. Rogers (1995) identifies the five types of adopters: (1) innovators; (2) early adopters; (3) early majority; (4) late majority; (5) and laggards.

Figure 1. Diffusion of Innovation



Source: Rogers (1995)

Innovators, 2.5% of the total population, tend to favor taking risks. Innovators are also called lead users who are the first to buy a new product. They are likely to have higher education and income levels, and are socially active (Rogers, 1995). The next 13.5% of early adopters have similar characteristics as innovators, but they consider social acceptance especially in expressive products, such as luxury cars, watches and jewelry, and designer clothing (Rogers, 1995). They respect new styles and fashion that are involved in the product category. For example, early adopters buy the latest well-known designers' clothes, whereas innovators find unknown designers' boutiques for the style change (Solomon, 2007).

The early majority and late majority each accounts for 34% of the total population (Rogers, 1995). These two categories of innovators are considered late adopters, or the mainstream public, who want new things, but do not want to be too new (Solomon, 2007). The early majority adopts new ideas or goods right before they reach most of the population. In addition, those who are classified as the early majority do not like risk because they are concerned about the innovation's reliability (Solomon, 2007). Their adoption is just right after new ideas or products spread to the population. On the other hand, the late majority is conservative and fears high-tech products (Solomon, 2007). They tend to adopt a product because of an economic necessity and peer pressure (Rogers, 1995). They are vigilant in adopting innovations.

The final group, laggards, represents 16% of the population. This particular group is very skeptical about new product ideas (Rogers, 1995). They are the last people to adopt an innovation and are oriented to the past and 'localite' in their outlook (Rogers, 1995). These last adopters are in the stage of the product life cycle. Since the Diffusion of Innovations and the product life cycle have a similar curve, diffusion of innovation could be explained as relating to the product life cycle. For example, innovators are likely to adopt the product when it is introduced first. Early adopters are likely to adopt the product somewhat later than the introduction stage.

Of most interest to researchers are innovators who are in the introduction stage of the product life cycle. The firms seek to establish product awareness and educate these innovators about the product. Promotion is aimed at innovators, who are "risk-takers, impulsive, active, dominant, inner-directed, and self-reliant" (Foxall & Goldsmith, 1988, p.

120). Since innovators can play a significant role in influencing the rest of the population to determine whether to adopt a new product or service, marketers believe that the success of a new product depends on how likely innovators are to adopt the new products (Rogers, 1995). Many studies prove the importance of innovativeness in new product adoption (e.g., Goldsmith & Hofacker, 1991; Hirschman, 1980; Hurt, Joseph, & Cook, 1977; Manning, Bearden, & Madden, 1995; Midgley & Dowling, 1978; Steenkamp, Hofstede, & Wedel, 1999; Venkatraman, 1991, etc.). Besides innovators' adoptions, product characteristics lead to success or failure of adoption as well.

Characteristics of Innovations

Rogers (1995) suggested five perceived characteristics that are desirable for a new product to succeed:

1. Relative advantage

Relative advantage refers to the degree to which potential consumers perceive a new product to offer substantially greater benefits as compared to the product they are currently using. If consumers perceive the innovation to be relatively advantageous, then the rate of adoption of the innovation may increase rapidly. For example, in the past when regular mobile phones did not have multi-functions, Blackberry® Smartphone was relatively advantageous – connected on the go with wireless access to email, phone, and the web. With Blackberry® Smartphone, people did not need to carry a heavy laptop to use Internet services. Especially, it

gives benefits to business people by saving time and effort – clear advantages over existing alternatives.

2. Compatibility

Compatibility refers to the degree to which a new product is consistent with potential consumers' existing needs, values, norms, lifestyles, or past experiences.

If consumers consider the innovation compatible with their lifestyles, then they are likely to adopt the innovation. For example, CEC Corp in China specially made wrist watch phone (F88 Wrist Watch Mobile Phone) which seems like they have added a wristband to a cell phone and festooned it with a 3-megapixel camera, speakerphone, and color display to lure consumers in vain. Although the wrist watch phone was a novelty, it failed because it was not perceived well by general consumers who use typical cell phones and pay less than a hundred dollar to buy a cell phone. Consumers did not want to wrap their wrist with this 3.5-ounce ugly, but cool machine for \$1,111.

3. Complexity

Complexity refers to the degree to which a new product is perceived by potential consumers as difficult to understand and use. If consumers think that the innovation is easy to use (not complex), then they may rapidly adopt the innovation. This strategy requires less effort from the consumer, and it also lowers perceived risk.

Simplifying usage of devices, such as mobile phones and DVD recorders, are positively related to the adoption of an innovation.

4. Trialability

Trialability refers to the degree to which potential consumers can try or experiment with a new product on a limited basis. If consumers can try out the innovation, then they may be more comfortable using the innovation. Companies may seek promotional tools, such as free samples, to induce consumer adoption of products. Thus, this promotion strategy also helps reduce perceived risk by consumers associated with product adoption. For example, at mobile phone stores consumers can test cell phones. Before purchasing a cell phone, consumers can actually try to see how the product works.

5. Observability

Observability (and communicability) refers to the degree to which results from using a new product can be observed, imagined, or described to friends and others. If consumers observe the results of adopting the innovation, they may rapidly adopt it. For instance, iPhone, which is an Internet-enabled multimedia mobile phone, has a multi-touch screen with a portable media player (iPod). With iPhone, people can use Internet services anywhere and also do not need to carry another portable media player to listen to music. The rapid proliferation of the iPhone was due to its high visibility. It was easy for others to see the convenience this alternative offered.

Out of Rogers' five perceived characteristics, complexity is the only one that does not convince consumers to adopt innovations. The individual's attitude developed at the

persuasion stage involves his or her adoption or rejection of the innovation (Rogers, 1995).

The Consumer Decision-Making Process for Innovations

Rogers (1995) also proposed a consumer decision-making model involving five stages that a consumer must go through these stages when making a decision about adopting an innovation. These five stages are knowledge, persuasion, decision, implementation, and confirmation.

1. Knowledge

In the knowledge stage, a consumer is exposed to physical or social stimuli (e.g., a new product). A consumer begins to pay attention to a new product and accordingly learns how it works. A consumer generally gains knowledge about a new product through media at this stage. Nevertheless, a consumer may also gain knowledge about an new product based on a number of prior conditions (e.g., previous experience, felt needs, innovativeness) and his or her personal characteristics (e.g., socioeconomic status, personality variables).

2. Persuasion

In the persuasion or attitude formation stage, a consumer is likely to form a favorable or unfavorable attitude toward a new product. Brands and advertisements may play an important role in the persuasion stage, affecting a consumer's buying decision.

3. Decision

In the decision stage, a consumer determines whether to adopt or reject a new product. Adoption is a decision to adopt an innovation and rejection is a decision not to adopt an innovation.

4. Implementation

The implementation stage is an actual behavior in which a consumer puts a new product into use. However, a consumer can change his or her mind and put a different innovation to use.

5. Confirmation

A consumer reinforces his or her innovation-decision in a confirmation stage.

However, a consumer is unable to change the previous decision.

Consumer Innovativeness

Academics and practitioners have paid considerable attention to consumers' adoption of new products, which has resulted in numerous scholarly works related to innovativeness. Marketing experts point out that, "innovativeness is one of the few concepts in the behavioral sciences that have an immediate relevance to consumer behavior" (Muzich, Pecotich, & Putrevu, 2003, p. 297). Thus, it is very important to examine the impact of innovativeness on consumer adoption of innovations. Further, a number of researchers describe innovativeness as a hidden penchant for new and different experiences (Carlson & Grossbart, 1985; Hirschman, 1980, Midgley & Dowling, 1978; Venkatesan, 1973).

Rogers and Shoemaker (1971) define innovativeness as the "degree to which an individual is relatively earlier in adopting an innovation than other members of his sys-

tem” (p. 27). Midgley and Dowling (1978) conceptualized innovativeness as having two major components: The time of adoption and ownership of new products. The time of adoption can be perceived as earlier than its actual time of adoption (Midgley & Dowling, 1978). In other words, when a new product arrives, innovators purchase at a certain time. A certain time could mean the first several weeks or months or the first given percent of market penetration. The second component, or ownership of new products, reflects the quantity that an individual purchases from a prespecified list of new products at the given time (Midgley & Dowling, 1978). The ownership of new products places importance on a product category. The ownership of new products not only applies to individual product categories, but also across several categories, whereas time of adoption measures single new products directly (Midgley & Dowling, 1978).

The acquisition of new information, ideas, and products encourages new product adoption. In order to identify new product adopters, a characteristic of individual traits is visualized as consumer innovativeness (Hirschman, 1980; Midgley & Dowling, 1978). According to Hirunyawipada and Paswan (2006), “a personal trait is any characteristic by which a person differs from another in a relatively permanent and consistent way” (p. 184). Hirschman (1980) and Midgley and Dowling (1978) define consumer innovativeness as the latent personality trait that predisposes people to buy new products. Consumer innovativeness is perceived as a precursor to adopting new products (Chau & Hui, 1998).

Two different concepts have influenced the conceptualization of consumer innovativeness in adoption behaviors, “global (personal trait) innovativeness” and “domain-specific (narrowly defined trait toward products category) innovativeness” (Hirunyawipada & Paswan, 2006).

pada & Paswan, 2006, p. 184). While the former is classified in personality inventory that determines human behavior within the adoption of new products (Leavitt & Walton, 1975; Ostlund, 1972), the latter refers to the narrow sides of human behavior in a specific product category (Flynn & Goldsmith, 1993).

Global innovativeness

Global innovativeness has diverse characteristics in personality traits along with consumer innovativeness. Midgley and Dowling (1978) define global innovativeness as “the degree to which an individual makes innovation decisions independently of the communicated experience of others” (p. 23). This is also called “innate innovativeness” (after Hirschman, 1980) or “innovative predisposition” (Midgley & Dowling, 1993) in which a generalized personality trait aids the innovative characteristics of individuals (Kirton, 1976). This is considered global innovativeness and differs from domain-specific innovativeness, which is implicated in particular product categories (Goldsmith & Hofacker, 1991).

Global innovativeness, a personality trait, guides consumers’ judgment when they make decisions about purchasing new products (Midgley & Dowling, 1978). In other words, consumers are self-determining based on their actual experience with the new products rather than relying on others for information (Midgley & Dowling, 1978). Furthermore, those with a high degree of global innovativeness are likely to be receptive to new experiences and novel stimuli (Goldsmith, 1984; Leavitt & Walton, 1975).

In addition, Hirschman (1980) suggested that innovators may possess another interesting characteristic that may distinguish them from non-innovators which is the no-

velty seeking tendency. The novelty seeking tendency is defined as “the desire to seek out the new and different” product (Hirschman, 1980, p. 285). Consumers with a high degree of novelty seeking tend to be motivated to obtain information on the subject of new products using available sources including mass media, direct product exposure, or various forms of commercial marketing communications (Manning, Bearden, & Madden, 1995). Their self-designated inclination to experiment with new products is seen as global innovativeness (Midgley & Dowling, 1993). Innovators’ propensity for seeking out newness makes them adventurous.

Raju (1980) later added that innovators may possess another characteristic, variety seeking, which may set them apart from their non-innovator counterparts. Variety seeking is an expression of consumers’ desire for exploration because the more innovative consumers have a higher desire to alternate between familiar alternatives and nonfamiliar alternatives (Raju, 1980). Variety seeking has a positive relationship with new product adoption because consumers are attracted by different experiences (Raju, 1980; Steenkamp & Baumgartner, 1992). Steenkamp et al. (1999) explain that innovativeness tends to change consumptive patterns and earlier choices due to purchasing new and different products and brands. Another important component of innovativeness is a willingness to pay high prices for new products. Generally, when new products are introduced to the market, they are premium priced. Innovative consumers have to display a degree of price insensitivity to approach the innovation (Goldsmith & Newell, 1997). Therefore, the role of price sensibility in the adoption decision is related to new product adoption (Goldsmith & Newell, 1997). Those innovators’ preferences to new experiences cause variety seek-

ing (Lattin & McAlister, 1985; Menon & Kahn, 1995) and a willingness to change (Hurt et al., 1977).

In addition, Cancion (1967) and Fliegal and Kivlin (1966) suggest that risk and uncertainty associated with the diffusion process can be a negation of the adoption of innovation because perceived risk involves the degree of uncertainty a consumer possess about purchasing a new product. Consumers fear whether the new product will not work as they expected. However, willingness to take risks is positively related to innovative behavior (Gatignon & Robertson, 1985; Robertson, Zielinski & Ward, 1984; Rogers, 1995). Raju (1977) confirms that risk taking is a significant element that induces innovativeness. This is understandable because innovators are venturesome risk takers who have more social participation and greater exposure to mass media than later adopters (Rogers, 1995; Vishwanath, 2005). Innovators experience relatively little risk in purchasing new products than later adopters. Consequently, low-risk perception contribute to innovativeness.

As discussed before, multiple aspects of global innovativeness, including inherent novelty seeking, variety seeking, venturesomeness, willingness to change, and price insensitivity together demonstrate global innovativeness to be the underlying predisposition of consumers to adopt new products (Carlson & Grossbart, 1985; Hirshman, 1980; Midgley & Dowling, 1978). In previous empirical studies, the concept of global innovativeness has been employed in many different contexts to study consumer innovativeness and adoption of a new product. These contexts include such things as food products, computer software, personal computers, consumer electronic products, clothing, and cellular

phones (Foxall, 1988; 1995; Foxall & Bhate, 1991; Im, 2003; Midgley & Dowling, 1993; Wood & Swait, 2002).

Previous studies have suggested that global innovativeness is comprised of two major dimensions: Cognitive and sensory innovativeness. The cognitive and sensory dimensions analyze those diverse product categories as an aspect of the bidimensional global innovativeness trait.

Cognitive innovativeness

The cognitive system is made up of “logical, rational, sequential thought processes and verbal modes of information processing” (Venkatraman, 1991, p. 294). The cognitive system tends to seek stimulation that awakens the mind and creates consumers who enjoy new experiences with thinking and puzzle solving capabilities (Hirschman, 1984; Hirunyawipada & Paswan, 2006; Pearson, 1970; Venkatraman & Price, 1990). As such, cognitive innovativeness refers to the process which pays attention to explanations and facts, as well as learning how things work and how to do new things to inspire these mental activities (Pearson, 1970). As a result, cognitive innovators dedicate their mental energy to get to the bottom of problems by learning about cause and effect (Hirschman, 1984; Pearson, 1970). Researchers found that cognitive innovators are likely to have higher educations (Hirschman, 1984; Venkatraman & Price, 1990; Zuckerman, 1979) and read newspapers and magazines in order to seek information about products or services (Hirschman, 1984; Venkatraman & MacInnis, 1985). The propensity of their careful thinking and mental exertions affects their consumption as well.

According to Venkatraman (1991), consumers' perceived complexity of the product does not affect cognitive innovators' decisions. This finding is evidence of the impact of their careful thinking and mental exertions on the decision. In addition, this study further reported that cognitive innovators are not impulsive buyers or risk takers due to their careful thinking and economic risk has no impact on their decisions (Venkatraman, 1991) because cognitive innovativeness and income coincide with one another (Thorelli & Engledow, 1980). Their quest for novelty results in newness of a product and relative advantage as the important evaluation criteria, especially when they purchase new products (Venkatraman, 1991). The consumption that seeks a functional or practical task delivered by products is cognitively driven. For example, minivans are considered instrumental and functional rather than sports cars purposed for fun and excitement. Therefore, consumers with high degree of cognitive innovativeness tend to prefer utilitarian products to suit a consumption problem that is practical and convenient (Venkatraman & Price, 1990).

Sensory innovativeness

Sensory innovativeness uses affective motives that produce the feeling of satisfaction by reaching emotional goals (McGuire, 1976; Venkatraman & Price, 1990). Sensory traits lead consumers to look for stimulation that arouses the senses and induces fantasy thinking and activities (Hirschman, 1984; Pearson, 1970; Venkatraman & Price, 1990). Pearson (1970) explains that external stimuli generate fantasy and arousal as sensory innovativeness. Pearson (1970) was one of the first to introduce the concept of sensory innovativeness and viewed sensory innovativeness as a tendency to engage in and enjoy

internally generated experiences, such as fantasy and daydreaming and externally available thrilling and adventurous activities, such as skydiving.

Sensory innovators take pleasure in novelty, not including too much thinking and deliberation (Hirunyawipada & Paswan, 2006; Zuckerman, 1979). They desire visual stimuli to acquire information through advertisement, product news, and product trials as their novel information (Hirunyawipada & Paswan, 2006). They prefer the sensory attributes of products that provide fun, use, and experience called hedonic attributes, e.g., styles, colors, designs, etc. (Venkatraman & Price, 1990). For example, luxury goods have hedonic attributes that provide fun, pleasure, excitement, and experiential consumption (Dhar & Wetenbroch, 2000). Their less organized and emotional traits affect their consumption. Complexity and performance and economic risk have negative impact on sensory innovators' adoption decisions because of their low cognition (Venkatraman, 1991). Their undesired time-consuming action makes them risk takers and impulsive buyers because they enjoy risk (Venkatraman, 1991; Venkatraman & Price, 1990). More interestingly, researchers found that a relationship between those characteristics of sensory innovativeness and certain demographic information (Hirschman, 1984; Zuckerman, 1979). That is, men and young people are likely to display a higher degree of sensory innovativeness than women and old people who are drawn to cognitive innovativeness. However, at one point they both share similarities related to the characteristic of relative advantage and newness of the innovation. Since both innovators pursue new experiences and novelty, relative advantage and newness affect their adoption decision (Venkatraman, 1991). In other words, they are intrinsically motivated to engage in the adoption process.

Consequently, cognitive and sensory innovativeness are set apart by their distinctions, such as demographics, personality profiles, and adoption behaviors (Venkantraman & Price, 1990). Based on their adoption behavior, there is a predilection of cognitive consumers to buy new products that are utilitarian-based (e.g., glue sticks, batteries, paper clips, disposable baby diapers, etc.) and sensory consumers to buy new products that are hedonic-based (e.g. M&M's, beer, video games, potato chips, etc.).

Domain-specific Innovativeness

The concept of global innovativeness is broad because it is a personality trait possessed by each person in society (Goldsmith & Hofacker, 1991). Compared to global innovativeness, domain-specific innovativeness is a more narrow perception that may be useful to explain consumers' adoption of specific new products (Goldsmith & Hofacker, 1991). In previous empirical studies, domain-specific innovativeness has been used to explain and understand consumers' consumption related to online shopping, fashion, clothing, electronics products, and wine (e.g., Citrin, 2000; Goldsmith & Flynn, 1992; Goldsmith, Freiden, & Eastman, 1995; Goldsmith, Hauteville, & Flynn, 1998).

Midgley and Dowling (1978) point out that domain-specific innovativeness indicates the narrow facets of human behavior in an individual's particular curiosity domain. Goldsmith and Hofacker (1991) note, "domain or product category specific innovativeness reflects the tendency to learn about and adopt innovations (new products) within a specific domain of interest" (p. 211). Guided by King and Summers' (1970) Opinion Leadership Scale, Goldsmith and Hofacker (1991) proposed the Domain Specific Innovativeness (DSI) scale. The DSI scale aims to distinguish domain-specific innovativeness

from a generalized personality trait, which is the more abstract concept (Goldsmith & Hofacker, 1991). In order to establish psychometric properties (e.g., reliability, validity) of the construct, the DSI scale has gone through a series of rigorous validity tests in a variety of contexts, such including things as rock music records/tapes, fashion and household entertainment equipment, and cologne, perfume, and aftershave. The scale is highly reliable, criterion-related, and convergent. In addition, the scale predicts consumer behavior better for often-purchased goods than rarely purchased products, which have no perceived attitude to draw on.

It is not easy to simplify innovative behavior with general product categories, but the expectation of behavior is superior when the domain is narrowed to a specific product category (Muzinich et al., 2003). Due to a satisfactory level of its psychometric properties, the DSI scale has been extensively employed in two major domain-specific contexts: Fashion and technology.

Fashion innovativeness

Despite extensive research on fashion innovativeness, none of the literature defines the term “fashion innovativeness” because fashion itself possesses the meaning of innovativeness. Fashion has been defined in various ways from different people. For example, an economist and marketing professor states, “fashion is nothing more or less than the prevailing style at any given time” (Nystrom, 1928, p. 4). A fashion merchant describes fashion as “a conception of what is currently appropriate” (Daniels, 1951, p. 51). Hurlock (1929) describes fashion as, “... a series of recurring changes in the choices of a group of people, which, though they may be accompanied by utility, are not determined

by it” (p. 4). Fashion-industry analysts state, “fashion is a continuing process of change in the styles of dress that are accepted or followed by substantial groups of people at any given time and place” (Jarnow & Judelle, 1965, p. 3).

Since the 1920s, the meaning of fashion has been identified in diverse ways. Because fashion has been a significant force in people’s lives, some researchers describe fashion as “one of the greatest forces in present-day life and it was all-pervasive” (Nyström, 1928, p. 534). Hence, fashion is a way of behaving and it is caused by different objects, different classes of consumer products, and social forms of human behavior (Sproles, 1979). Fashion reflects many aspects of human behavior because it follows human needs and interests (Kaiser, 1990). Psychologists, sociologists, merchandisers, marketers, and consumer economists have studied fashion innovativeness because fashion innovators have a significant role to uphold to justify new fashions to fashion followers (Beaudoin, Lachance, & Robitaille, 2003; Goldsmith, Moore, & Beaudoin, 1999; Huddleston, Ford, & Bickle, 1993; Muzinich et al., 2003).

Accordingly, the definition of fashion innovator may provide a close description of those who tend to display a certain degree of fashion innovativeness. Workman and Johnson (2006) define fashion innovators as “individuals who are the first to age existing clothing styles by adopting different ones” (p. 60). When new styles are introduced in the marketplace, fashion innovators become the first buyers of new fashionable wear (Goldsmith et al., 1999). New styles and new fashions worn by innovators influence the behavior of followers or later buyers by word-of-mouth information (Goldsmith et al., 1999; Martinez & Polo, 1996). Furthermore, fashion innovators may be likely to possess

fashionability, which is a harmony in current social fashions by having elegance or taste or refinement in manners of dress (Farlex Inc., 2007). On the other hand, early fashion adopters who follow after innovators are likely to pertain to conformity, which is “a change in beliefs or actions as a reaction to real or imagined group pressure” (Solomon, 2007, p. 391). In this viewpoint, fashion innovators tend to have more clothes and spend a shorter period of time wearing those objects than early fashion adopters because innovators adopt products no matter how others or society accept it.

In general, fashion innovators are characterized as having greater social participation and higher opinion leadership along with higher income and education than nonfashion innovators (Muzinich et al., 2003). Compared to nonfashion innovators, such individuals are younger, so they are more socially mobile and are likely to display favorable attitudes toward risk (Muzinich et al., 2003). They are more involved in using clothing and dressing. Thus, they are more likely to discuss issues related to clothing than nonfashion innovators (Muzinich et al., 2003). They evaluate new fashion apparel resulting from their high knowledge and cognitive structures derived from information-seeking tendency (Muzinich et al., 2003). Otherwise, consumers who are innovative particularly in fashion (fashion innovators) are essential to new developments in fashion apparel.

Technological innovativeness

None of the academic researchers have defined the term, technological innovativeness. Since the concept of technology is broad, technology and innovation have been defined separately. As mentioned the meaning of innovation at the beginning of the paper, innovation is advancement by creating something new. Technology deals with a species’

usage and knowledge of tools and crafts, and how it affects a species' ability to control and adapt to its environment (Farlex Inc., 2007). "Technology" can refer to material objects of use to humanity, such as machines, hardware or utensils, but can also encompass broader themes, including systems, methods of organization, and techniques (Farlex Inc., 2007).

Since science and engineering turned out technology in human society, technological developments have affected society in diverse fields, such as economics, business, sociology, etc. Dosi (1982) defines technology as knowledge, including know-how, methods, procedures, and physical devices and equipment. That developing process with innovative ideas leads to more sophisticated customers and much-improved products or services as well. Clark and Fujimoto (1991) state, "novel technologies and new understanding of existing technologies yield a broader and deeper base of knowledge about the phenomena underlying particular applications" (p. 3). Hence, technological innovation affects both consumers and products, especially the high-tech product domain (consumer electronic products).

The boundaries of the product categories in a context of domain-specific innovativeness are not easily defined since technological products are a combination of hardware and software elements (Rogers, 1995). The decision to adopt or reject technological innovations involves a high degree of uncertainty given that a desired outcome of their adoption is not always apparent to the potential adopter (Rogers, 1995). Technological products not only carry uncertainty to the expected consequences, but also reduce uncertainty through its application and use (Rogers, 1995). In a separate domain, whether the

products are cellular phones or personal computers, they should be considered separately as a product in itself (Vishwanath, 2005). However, it is widely accepted that the ownership of technological products is likely to encourage using other functionally similar products (Atkin & LaRose, 1994; LaRose & Atkin, 1988). For instance, Vishwanath and Goldhaber (2003) prove that cellular phone ownership and frequency of use is predicted by computer ownership.

Numerous studies have assessed consumer technological innovativeness in different technological domain by employing Goldsmith and Hofacker's (1991) six-item Domain-Specific Innovativeness scale (Atkin & LaRose, 1994; Hirunyawipada & Paswan, 2006; LaRose & Atkin, 1988; Vishwanath & Goldhaber, 2003). Technological innovativeness in domain-specific captures the individual's tendency toward the product class and acquiring new goods with interrelated information within the technological domain (Goldsmith & Hofacker, 1991). It is a consequence of the interaction between global innovativeness and strong interest in the product category (Midgley & Dowling, 1978; Roehrich, Florence, & Ferrandi, 2002).

The Measurement of Consumer Innovativeness

As discussed in the introduction of Innovativeness in this paper, researchers have endeavored to measure consumer innovativeness. There are five scales that have been widely employed, and two groups categorize each of them: non-adoptive innovativeness scales and adoptive innovativeness scales. There are three scales under non-adoptive innovativeness scales: (1) the King and Summers' (1970) measure of opinion leadership, (2) Innovativeness: "openness of information process" (Leavitt & Walton, 1975; 1988), (3)

Cognitive and Sensory Innovativeness (Venkatraman & Price, 1990). Then, there are two scales that are classified in adoptive innovativeness scales: (1) Exploratory tendencies in consumer behavior scales (Raju, 1980) and (2) Domain-Specific Innovativeness (DSI) (Goldsmith & Hofacker, 1991).

Non-adaptive innovative scales

The non-adoptive innovativeness scales are not related to adoptive behavior, instead such scales go beyond the adoption of a new product. King and Summers (1970) generate opinion leadership across product categories and developed a specific seven-item opinion leadership scale based on a product or issue. Opinion leadership reflects the scope of individuals giving information of a topic and extends to information that is required by others from those individuals. Opinion leadership is deemed to be a critical determinant of word-of-mouth communication and interpersonal influences affecting the diffusion of new products, concepts, and services (King & Summers, 1970). The scale consists of seven items that are worded by alternative product categories (e.g., fashion, food, Internet shopping, and etc.), and it can be inserted into each statement. The response is formed by both a dichotomous response (1 = Yes and 2 = No) and three response possibilities (1 = less likely, 2 = about as likely, 3 = more likely). For example, the first item reads as follows, “In general, do you like to talk about _____ with your friends?” The second item is, “Would you say you give very little information, an average amount of information, or a great deal of information about _____ to your friends?” King and Summers’ (1970) scale has been employed and confirmed by numerous re-

searchers (e.g., Childers, Houston, & Heckler, 1985; Darden & Reynolds, 1972; Goldsmith & Desborde, 1991; Reynolds & Darden, 1971; Riecken & Yavas, 1983).

The second innovativeness scale termed “openness of information processing” (Leavitt & Walton, 1975; 1988) involved in a personality trait underlying the adoption of innovations. The measure consists of two forms (alternate form A and B) and each contains thirty items. While items in form A were relevant for female participants, items in form B were addressed to males. For example, the first item in Form A is, “I like to take a change,” and the first item in Form B is, “I like to experiment.” The scale classifies innovators, who are open to new experiences and novel stimuli. They transform information about new concepts, ideas, products or services for their own use.

The third measurement, Cognitive and Sensory Innovativeness (Venkatraman & Price, 1990) clarifies that consumer innovativeness is a differentiated construct, so does cognitive and sensory innovativeness by unique demographic and personality profiles due to the relation of adoption behaviors. As discussed earlier in the paper, cognitive innovators enjoy thinking for its own sake and have a propensity to devote a great deal of mental energy to solve problems they encounter. Sensory innovators enjoy fantasy and daydreaming and adventurous activities such as skydiving. Each cognitive and sensory measurement has eight items, which include four internal and four external items. Originally, the eighty items of Novelty Experiencing Scale (NES) (Pearson, 1970) refined the scales. The following is an example of items from Cognitive and Sensory Innovativeness (Venkatraman & Price, 1990): “Finding out the meaning of words I don’t know” (cognitive innovativeness); and “Being on a raft in the middle of the Colorado River” (sensory in-

novativeness). The scale was applied in Venkatraman (1991) that shows the relationship between personal characteristics and new-product adoption behavior depends upon consumer innovativeness type and product type.

Adoptive innovativeness scales

The first adoptive innovativeness scale named, Exploratory Tendencies in Consumer Behavior Scales (ETCBS) was developed by Raju (1980) to measure consumer tendencies toward exploratory behavior. Exploratory tendency behavior adapts motivation from the environment. Such behaviors include (Raju, 1980, p. 278-279):

- *Repetitive behavior proneness* – the tendency to stick with the same response over time.
- *Innovativeness* – eagerness to buy or know about new products and services.
- *Risk taking* – a preference for taking risks or being adventurous.
- *Exploration through shopping* – a preference for shopping and investigating.
- *Interpersonal communication* – communicating with friends about purchases.
- *Brand switching* – switching brands primarily for change and variety.
- *Information seeking* – interest in knowing about various products and brands mainly out of curiosity.

The ETCBS is composed of thirty-nine items and all are measured on seven-point agree-disagree scales. For instance, the following is the first item: “Even though certain food products are available in a number of different flavors, I always tend to buy the same flavor.” In another study, Wahlers, Dunn, and Etzel (1986) examined the dimensionality of the ETCBS and correlated it with measures of optimal simulation level.

The second adoptive innovativeness scales called Domain Specific Innovativeness (DSI) was proposed by Goldsmith and Hofacker (1991) to measure consumer tendency “to learn about and adopt innovations (new products) within a specific domain of interest” (p. 211). Six-items are scored on a five-point Likert-type scale. One of examples from the items is, “In general, I am among the first (last) in my circle of friends to buy a new _____ when it appears.” The scale proved to be unidimensional and highly reliable. The final DSI scale has gone through rigorous tests as an attempt to establish psychometric properties in several studies (Citrin, Sprott, Silverman, & Stem, 2000; Flynn & Goldsmith, 1993; Flynn, Goldsmith, & Eastman, 1996; Goldsmith et al., 1998; Nyeck, Sylvie, Xuereb, & Chebat, 1996).

Each measurement may have its theoretical strength and weaknesses, and that causes researchers to construct their conceptual framework in different ways. Whether they measure personal characteristics or novel product adoption in the specific contexts, “consumer innovativeness transforms consumer action from routinized purchasing of a static set of brands and products to dynamic behavior” (Steenkamp et al., 1999, p. 55). At the individual level, a consumer is, “to some extent, an innovator; all of us over the course of our lives adopt some objects or ideas that are new in our perception” (Hirschman, 1980, p. 283).

Fashion Orientation

Fashion orientation represents the significance of clothing-fashion in people's life-style. Since fashion is derived from many parts of a human life, fashion orientations cannot be explained without understanding people's lifestyles and their values. Lifestyle is "a pattern for people living and spending time and money" (Engel, Blackwell, & Miniard, 1990, p. 342). People put their values in their lifestyles, and a lifestyle is a significant force in fashion orientation.

To capture the clothing-fashion lifestyle segment, Gutman and Mills (1982) examined the concept of fashion orientation in relation to shopping orientation. Previous studies reported that shoppers with different shopping orientations tend to have different preferences in terms of product usage (Darden & Reynolds, 1972). Gutman and Mills (1982) proposed 17-item scales and empirically reported that fashion orientations comprise of four major dimensions; fashion leadership, fashion interest, importance of being well dressed, and antifashion attitude. These four dimensions of fashion orientation have been widely employed in identifying shopping behavior, lifestyle characteristics, and compulsive buying (Chung, 1996; Darley & Johnson, 1993; Huddleston, Ford, & Bickle, 1993; Lee, Park, & Chung, 2004; Park & Burns, 2005).

Fashion leadership, one of the major dimensions of fashion orientation, refers to a particular kind of opinion leadership and "appears to define and endorse appropriate standards" (Polegato & Wall, 1980, p. 327). Opinion leaders are people who affect others' actions or behavior more significantly (Solomon, 2007). Specific to the context of fashion, Workman and Johnson (1993) describe fashion opinion leaders as "those consumers who

accelerate the fashion aging process by legitimizing an innovative style and by influencing others to accept the style innovation as a replacement for the currently accepted one” (p. 60). According to Summers and King (1969), women’s clothing fashion opinion leaders are venturesome in trying new products and consider themselves as knowledgeable about new products in general. Similarly, Myers and Robertson (1972) examined opinion leadership in the contexts of women’s clothing, fashion, cosmetics, and personal care and reported that opinion leaders are knowledgeable, are likely to engage in discussion, and tend to pay amount of interest in women’s clothing and fashions. As a result, opinion leaders express fashion leadership through new items and possess a unique self-concept. These interesting characteristics of fashion leadership are helpful for further exploration of the other dimensions of fashion orientations; fashion interest, importance of being-well dressed, and antifashion attitude (Evan, 1989; Morganosky & Vreeman, 1986; Wilkie, 1990).

Self-concept is defined as “an individual’s consciousness of being” and the way one uses that consciousness in his or her social behavior (Kaiser, 1990, p. 146). The idea of self-concept is similar to the idea of self-image because they both deal with an individual’s assessment of self. According to Goldsmith, Moore, and Beaudoin (1999), self-concept embraces self-image or the insight that people have. Another author, Evans (1989), viewed self-concept as containing both the physical and mental self because wearing clothing has two meanings. One is for a functional reason (protection) and the other is for an expressive enrichment. Broadly speaking, self-concept is a mental image of oneself including multiple and different self-images.

Lifestyle and value of fashion orientation depend upon self-concept, which reflects from the image an individual has of himself or herself. Stone (1962) states, “a person’s appearance announces his identity, shows his values, expresses his mood, or proposes his attitude” (p. 97). Many consumers choose products and brands that go with their images (Goldsmith, Moore, & Beaudoin, 1999). In relation to this idea, fashion interest is expected, and people tend to place a great value on being well dressed. Those who are interested in fashion always keep themselves abreast of any kinds of fashion activities (e.g., reading fashion magazines, keeping up with fashion trends). In addition, those who place great emphasis on being well-dressed are likely to pay attention to the importance to be well-dressed because wearing good clothes reflect one’s individuality and good life. Conversely, people who have the antifashion attitude do not regard current fashion and fashion leaders’ opinions when they make a decision on their clothes. Thus, those with antifashion attitudes tend to display unfavorable attitudes toward fashion.

Fashion is a visual communication of one to others, and fashion orientation as a theory of fashion expresses the psychological aspects of self through a self-concept. An individual’s own ideas of self develop self-concept theory, and self-concept influences fashion orientation.

Consumer Attitude-Behavioral Model

A number of consumer researchers have paid considerable attention consumers' attitudes as a driving force behind their behavior in a wide range of consumption contexts, such as illegal copying of software, shelters for homeless youth, organ donation, exercise, drinking beer, online shopping, and so on (e.g., Broadhead-Fearn & White, 2006; Chang, 1998; Park & Smith, 2007; Ravis & Sheeran, 2003; Smith, Terry, & Hogg, 2006; Wang, Chen, Chang, & Yang, 2007). Most of these investigators agree with this definition of attitude: "a learned predisposition to respond to an object in a consistently favorable or unfavorable manner" (Fishbein & Ajzen, 1975, p. 336). These researchers commonly agree that the impact of attitude on behavior occurs because attitudes are an "expression of inner feelings that reflect whether a person is favorably or unfavorably predisposed to some objects" (Schiffman & Kanuk, 2007, p. 240). Such inner feelings toward an object (positive vs. negative) might propel a person toward a particular behavior or repel the person away from engaging in a particular behavior. Therefore, attitude is "the most distinctive and indispensable concept in contemporary American social psychology" (Allport, 1968, p. 59). According to Trafimow and Finlay (1996), attitude is the best predictor of behavioral intention. This results from the fact that "if attitude can be changed, then intention may be influenced, and subsequently behavior may be influenced" (Al-Rafee & Cronan, 2006, p. 239). This view is persuasive as it explains that behavior could be weighted in terms of attitude change and persuasion (Al-Rafee & Cronan, 2006). Otherwise, attitude significantly affects consumers' buying decisions. Attitudes, after all, com-

prise a person's beliefs, feelings, and action toward the object (Fishbein & Ajzen, 1975).

Fishbein and Ajzen (1975) originally defined the complex structure of attitude.

Tricomponent of Attitude Model

The tricomponent attitude model consists of a cognitive (thought), an affective (emotion), and a conative (overt action) component (Hoyer & MacInnis, 2007; Solomon, 2007). The cognitive component is what people think about information in their minds. People can be reminded of products or services internally from their memory or externally from advertising, Internet, and peers. The affective component contains both hedonic and utilitarian attitudes because hedonic attitudes are related to the experience of product use, and the utilitarian attitudes are related to the product's function (Hoyer & MacInnis, 2007). Hedonic and utilitarian perspectives influence attitudes because emotional commitment may predict consumers' behaviors. The last of the three, the conative component, is related to intentions because it is a more forceful tendency to act in certain ways. Fishbein and Ajzen (1975) perceived the conative component as intentions, and it is associated with the affective component. The three components are related to each other and persuade consumers' attitudes and intentions toward their actual behavior. Consumers' attitudes are influenced cognitively, affectively, and conatively.

Theory of Reasoned Action

The Theory of Reasoned Action is an extended Fishbein Model that provides the most comprehensive integration of attitude components (i.e., cognitive, affective, conative) into a model that offers better explanation and prediction of behavior (Hoyer & MacInnis, 2007; Schiffman & Kanuk, 2007). The Fishbein Model (1975) is the most

prominent multiattribute model that represents consumers' attitudes (evaluation) toward an attitude object (e.g., products or services) coming from their beliefs. The specific beliefs could measure consumers' current attitudes and predict attitudes toward products or brands (Solomon, 2007). For instance, if one has favorable attitudes toward products or brands, he or she would have positive evaluations with a sufficient level of attributes.

Consumers' decisions about products or services are not made simply; there are several factors that influence consumers' attitudes, a major determinant of their consumption behavior. Ajzen and Fishbein (1980) later found that consumers' attitudes toward objects (A_O) did not quite correspond to actual behavior. As a consequence, researchers have evolved the Fishbein Model, which attributes consumers' attitudes toward purchasing products to the theory of reasoned action. The theory of reasoned action focuses on the attitude toward behavior, rather than only the attitudes toward objects, which is a better prediction of action due to motivational influences on the individual's manner.

Behavior, from a social psychological standpoint, is determined by consumers' intentions. Identifying the fundamental determinants of behavior and behavioral intention facilitates in changing behaviors (Madden, Ellen, & Ajzen, 1992). A long stream of research has examined Fishbein and Ajzen's (1975) Theory of Reasoned Action (TRA) because the TRA model was originally designed to predict behavioral intentions of consumers (Fishbein & Ajzen, 1975). The TRA model is one of the most widely applied social psychology theories in numerous behavioral domains, such as organic food (Tarkiainen & Sundqvist, 2005), short message service advertising (Muk, 2007), predicting turnover (Prestholdt, Lane, & Mathews, 1987), education (Fredricks & Dossett, 1983), breast

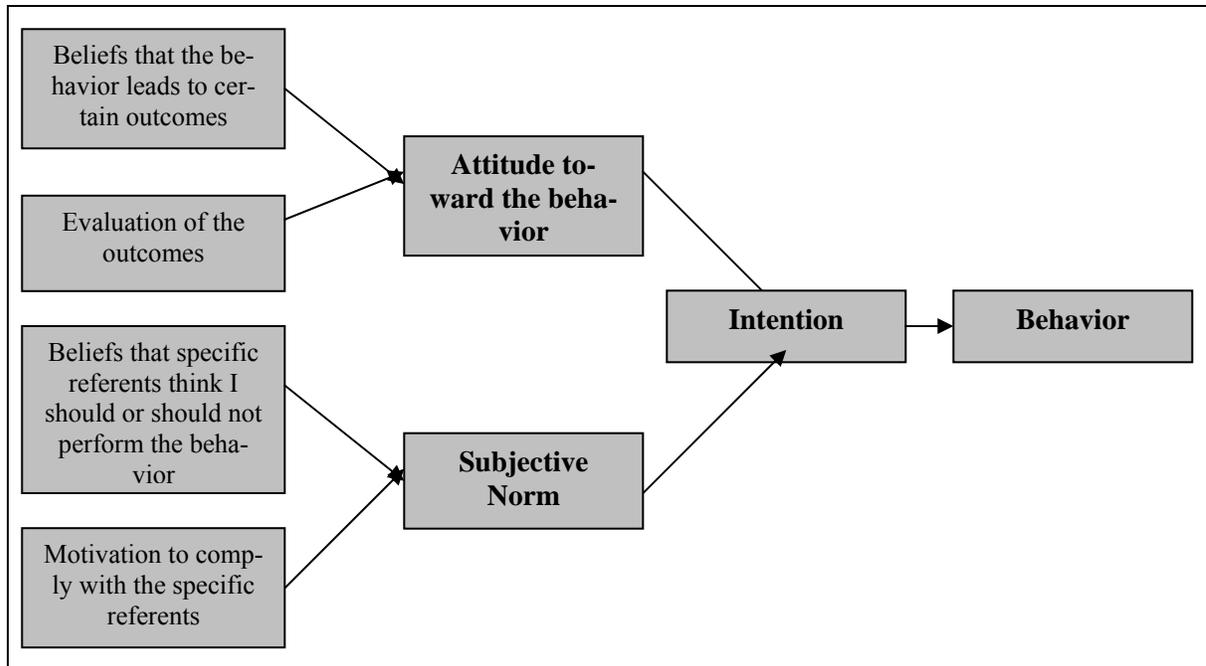
cancer examination (Timko, 1987), and Internet shopping (Kim, Kim, & Kumar, 2003; Yoh, Damhorst, Sapp, & Laczniak, 2003).

The TRA model generally states that actual behavior is the individual's intention to behave in a certain way, where neither the intention nor the behavior is spontaneous. Actual behavior is persuaded in terms of people's attitudes toward that behavior and in the social pressure individuals experience regarding whether or not to perform the behavior, i.e., subjective norms (see Figure 2) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Park & Smith, 2007). Sheppard, Hartwick, and Warshaw's (1988) extensive meta-analysis of the TRA suggests a strong relationship between attitude, subjective norms, and behavioral intentions for behaviors under volitional control. Alternatively, the TRA can be algebraically expressed as follows:

$$B \sim BI = A_B (w_1) + SN (w_2)$$

where B represents the person's overt action (behavior), BI indicates behavioral intentions, A_B is attitude toward the behavior, SN is subjective norm, and w_1 and w_2 are weight for A_B and SN respectively (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Figure 2. The Theory of Reasoned Action Model



Source: Ajzen & Fishbein (1980)

Attitudes toward Behavior (A_{Beh})

Attitude toward behavior is verified by an individual's belief that the behavior leads to certain outcomes and his or her subsequent evaluation of these outcomes (Bailey, 2006). Attitudes toward behavior refer to the degree to which a person has a favorable or unfavorable evaluation for that behavior (Ajzen, 1991; Ajzen & Fishbein, 1980). It is widely accepted that the more favorable the attitude toward the behavior, the stronger the individual's intention of performing the behavior (Ajzen, 1991).

Linking the major streams of attitudes and beliefs, behavioral beliefs influence attitudes (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Fishbein and Ajzen (1975) note, beliefs refer to "a person's subjective probability judgments concerning some discriminable aspect of his [or her] world" (p. 131). Buchan (2005) illustrates attitude as,

“the sum of the salient beliefs weighted by expected outcomes” (p. 166). Alternatively, A_{beh} can be also expressed as the following formula:

$$A_B = \sum b_i e_i$$

where A_B is attitude toward behavior, b_i is the strength of the belief and it leads to outcome i , and e_i is the evaluation of outcome i (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Based on the above formula, attitudes are determined by the behavioral beliefs of the individual (Ajzen, 1985). The behavioral beliefs are addressed as the underlying authority over an individual’s attitude of performing the behavior (Madden, et al., 1992). Behavioral beliefs estimate the future ending of actual behaviors throughout current positions.

The above discussion clearly suggests, “attitudes guide, influence, direct, shape, and predict behavior” (Smith et al., 2006, p. 1173). The more affirmative an individual’s attitude, the more likely the behavioral preference, and in opposition, the more negative the attitude, the less likely the behavioral preference (Morris & Dillion, 1997; Ravis & Sheeran, 2003; Taylor & Todd, 1995). As Davidson and Morrison (1983) state, the final goal of attitude toward behavior is “to explicate people’s behavior using attitudinal constructs and to predict future behavior from these constructs” (p. 997).

Bi-dimensional of Attitudes toward Behavior

Although a number of consumer research studies have long treated consumer attitudes as unidimensional, a growing number of studies that suggest that consumer attitudes are complex and multidimensional (Bagozzi & Burnkrant, 1979; Batra & Ahtola,

1990; Eagly & Chaiken, 1993; Mano & Oliver, 1993; Voss et al., 2003). These consumer researchers have stated that consumers generally consume goods and services for two basic motives: utilitarian (or instrumental) and hedonic (or consumatory affective) gratification motives. Thus, consumers' attitudes toward behavior can be driven by utilitarian and hedonic motives. The two different motives have disparate directions to consumer choices and consumptions. Utilitarian or instrumental assessment of attitudes places products value in functional aspects. On the other hand, hedonic or aesthetic assessment of attitudes value products as pleasing assets (Hirschman & Holbrook, 1982). Mano and Oliver (1993) simply explained utilitarian and hedonic as "thinking versus feeling" (p. 452). Consumers' consumption behaviors are primarily related to psychology and sociology. Examining of the hedonic and utilitarian dimensions is the important strategy for marketers to predict the effect of consuming an object (e.g., product, brand, and advertising) on consumer behavior (Park et al., 1986). Consequently, utilitarian and hedonic aspects of attitudes motivate or reduce the consumer's consumption.

Utilitarian Dimension

Generally, a utilitarian motive is driven by the cognitive system, which represents careful thinking, mental exertions, problem-solving, and goal-oriented (Venkatramna, 1991). Such motive is derived from functions performed by products. Thus, the utilitarian dimension of a consumer attitude is viewed as purposeful, instrumental, and functional (Batra & Ahtola, 1990; Voss et al., 2003). Bazerman, Tenbrunsel, and Wade-Benzoni (1998) further suggest that behavioral activities associated with utilitarian benefits could be defined as "should" preferences (e.g., doing homework, searching information for

work, reading books) rather than “want” preferences (e.g., drinking beer, playing games, watching TV shows). Hence, a product with utilitarian benefits is likely to be consumed to solve the principal consumption problem and correspond to useful and convenient preferences.

It is widely accepted that consumers who are driven by utilitarian motives are likely to exhibit favorable attitudes toward consuming a product because of the functional benefits they anticipate to receive from consuming a product (Hirschman & Holbrook, 1982; Kempf, 1999; Mano & Oliver, 1993). The functional benefits are likely to be involved with tangible attributes of a product. These tangible attributes tend to provide utility satisfaction rather than emotional satisfaction (Hirschman & Holbrook, 1982). For instance, many consumers purchase a washing machine for practical and convenient purposes. Schwarts and Bilsky (1990) state that, to some extent, utilitarian consumption is fundamental performance in human needs, which can be cognitively driven to affect attitudes and behaviors. Consumer behavior is a branch of motives and consumption, thus, exploring the impact of the utilitarian aspect of attitude towards consumption on behaviors may provide insightful information to better understand how consumers strive to achieve their goals.

Hedonic Dimension

Hedonic consumption refers to “multisensory, fantasy, and emotive aspects of one’s experience with products” (Hirschman & Holbrook, 1982, p. 92). Multisensory is internal stimuli that consists of “tastes, sounds, scents, tactile impressions, and visual images” (p. 93). The music, for instance, may remind the consumer’s memory of someone

who likes the song. Instead of recalling from past experiences, fantasy imagery is the first time the consumer experiences the stimulus, thereby building its own image.

Emotive arousal is another experiential component, including both positive and negative feelings. Positive feeling such as pleasantness in engaging certain behavioral activities not only fuel high emotional arousal, but these positive feelings may also stimulate negative emotion (e.g., fear) as well (Hirschman & Holbrook, 1982). For example, sky-diving may provide both fear and exhilaration. Those experimental components of these feelings including fear and exhilaration are motivational factors that drive consumers to engage in this type of activity. Emotional arousal especially motivates the consumption of specific products, such as novels and plays (Holbrook, 1980). Kempf (1999) suggested that consumption of a product that is hedonic-based tends to create more emotional arousal more than consumption of a product that is utilitarian-based.

In hedonic perspectives, researchers have used various indirect measures of emotional responses to consumption experiences in advertising and brand evaluations. It is understandable that marketers and advertisers analyze the consumer emotive responses because such responses may create an impact (positive or negative) on the images of a product or a brand name. The consumer's mental imageries about the product "require measures of how the product is seen in the consumer's subjective reality, beyond its objective context" (Hirschman & Holbrook, 1982, p. 94). Consumers, who have relatively high preferences on hedonic consumption, pursue desired reality, which is viewed as an imaginative construction (Hirschman & Holbrook, 1982). This view explains the importance of the creation of product images through advertising in order to appeal to a certain

market segment. This view addresses that the hedonic consumption is highly involved with aesthetic and consumers immediately correspond to product images.

Such findings suggest that hedonic goods are more akin to experiential consumption involving the sensory experience of aesthetic and excitement (Dhar & Wertenbroch, 2000). In sum, when consumers evaluate products and services, the terms multisensory, fantasy, and emotive response are the key criteria in hedonic consumption.

Subjective Norms

The second component of the TRA, namely subjective norms, deals with social influence. Subjective norms are defined as the person's beliefs that others who are important to that person think he or she should or should not perform a behavior (Ajzen & Fishbein, 1980; Hsu, Wang, & Wen, 2006; Zukerman & Reis, 1978). Norms in society have external prescriptions that possess the potential power to regulate and influence behavior (Hanley & Wilhelm, 1992; Moschis & Cox, 1989; Turner, 1991). Subjective norms pertain to "the influence one's personal community has on the specified behavior" (Park & Smith, 2007, p. 197). This aspect of the perceived importance of others' opinions reflects social norms (Mathieson, 1991). The salient referents could be individuals or groups, such as family, friends, and co-workers. The desire to comply varies for each referent (Buchan, 2005). By definition, subjective norms are composed of two major factors; normative beliefs and motivation to comply. Normative beliefs incorporate the previous importance of other's opinions. Other's opinions are referents that one highly regards. In certain situations, opinions of others become salient and continually have an impact on an individual's consumption behavior. Normative beliefs are sociological in-

fluences that could affect perceptions, attitudes, and behaviors (Shrum, O'Guinn, Sem-nick, & Faber, 1991). According to Buchan (2005), subjective norms can be viewed as “the sum of the strength of each normative belief times the motivation to comply” (p. 166). It can be also expressed as follows:

$$SN = \sum NB_i MC_i$$

where SN is the subjective norm, NB_i is normative beliefs that a person attributes to particular salient opinions, and MC_i is a person's motivation to comply with these opinions (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Yoh et al., 2003). For instance, normative beliefs could be, “my friends think that I should wear a suit for the meeting.”

Another example of one's motivation to comply with the referents' view is, “I generally want to do what my friends think I should do” (Rivis & Sheeran, 2003, p. 568).

A number of studies revealed that subjective norms influence consumers' behavioral intentions (Chang et al., 1996; Shimp & Kavas, 1984; Taylor & Todd, 1995). Researchers also found that subjective norms are likely to indirectly influence actual behavior through behavioral intentions (Ajzen & Fishbein, 1980; Bailey, 2006; Broadhead-Fearn & White, 2006; Finlay et al., 2002; Fishbein & Ajzen, 1975; Zukerman & Reis, 1978). Both attitudes and subjective norms “combine to influence a person's intentions to engage in a particular behavior” (Bailey, 2006, p. 804). While attitudes are individuals' general evaluations about the behavior, subjective norms are individuals' perceptions of the social pressure. Westaby (2005) describes attitudes and subjective norms as, “relatively broad substantive factors that consistently influence intentions across diverse behavioral domains” (p. 99).

Attitudes toward behavior and subjective norms share similarity in that they both are motivated by beliefs. That is, while attitudes toward behavior are motivated by behavioral beliefs, subjective norms are motivated by normative beliefs. These beliefs affect behavioral intention, which in turn, influences actual behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). The TRA takes into account both social influences (subjective norms) and personal factors (attitude) to understand the context-specific factors influencing behavior.

Intentions and Actual Behavior

In the TRA, attitudes toward behavior and subjective norms funnel into intentions. Similar to attitude, intention is the best predictor of behavior; however, intention is, “a psychological construct distinct from attitude, which represents the person’s motivation in the sense of his or her conscious plan to exert effort to carry out a behavior” (Eagly & Chaiken, 1993, p. 168). There is even a theory of intentions that explains the individual’s motivation to act in a specific way and “indicates how hard the person is willing to try, and how much time or effort he or she is prepared to expend, in order to perform a behavior” (Ajzen, 1991, p. 199). According to Fishbein and Ajzen (1975), intention is “a person’s location on a subjective probability dimension involving a relation between himself and some action” (p. 288). If we know the intention or a central determinant of one’s behavior, it will be easier to change that behavior. As Bosnjak, Obermeier, and Tuten (2006) state, behavioral intentions encapsulate “the goal-oriented nature of human behavior” (p. 105). Behavioral intentions direct an individual to a certain action.

Furthermore, intentions influence the likelihood of performing a particular action and estimating the future behavior (Koballa, 1988; Sheppard et al., 1988). Intentions, the immediate predecessors of behavior, are assumed to be under volitional control, which is determined by people's desire to engage in that behavior (Ajzen, 1991). These aspects of intentions affect the relationship between intention and behavior (Fishbein & Ajzen, 1975).

In sum, the TRA (Fishbein & Ajzen, 1975) is compiled by the important components, attitudes, subjective norms, intentions, and behavior, which are the nature of the behavior. Altogether, these major components develop a theory that human beings make decisions based on their systematic procedures, albeit indirectly. The model facilitates the study of human behavior in the social sciences. The relative importance of each component in the TRA may vary in terms of the specific-context of products or brands. Hence, there may be variations in an individual's actions supported by the nature of the behavior and facets of belief structures.

Conclusion and Research Gap

Innovativeness represents something new and that provides innovators with a different experience because they adopt things relatively earlier than the rest of the population (Rogers & Shoemaker, 1971). In the broad concept of innovativeness, the two main perceptions, global innovativeness and domain-specific innovativeness, play an important role in consumers' activities of purchasing and consumption. Global innovativeness is embodied in personality traits that aid the innovativeness characteristics of an individual,

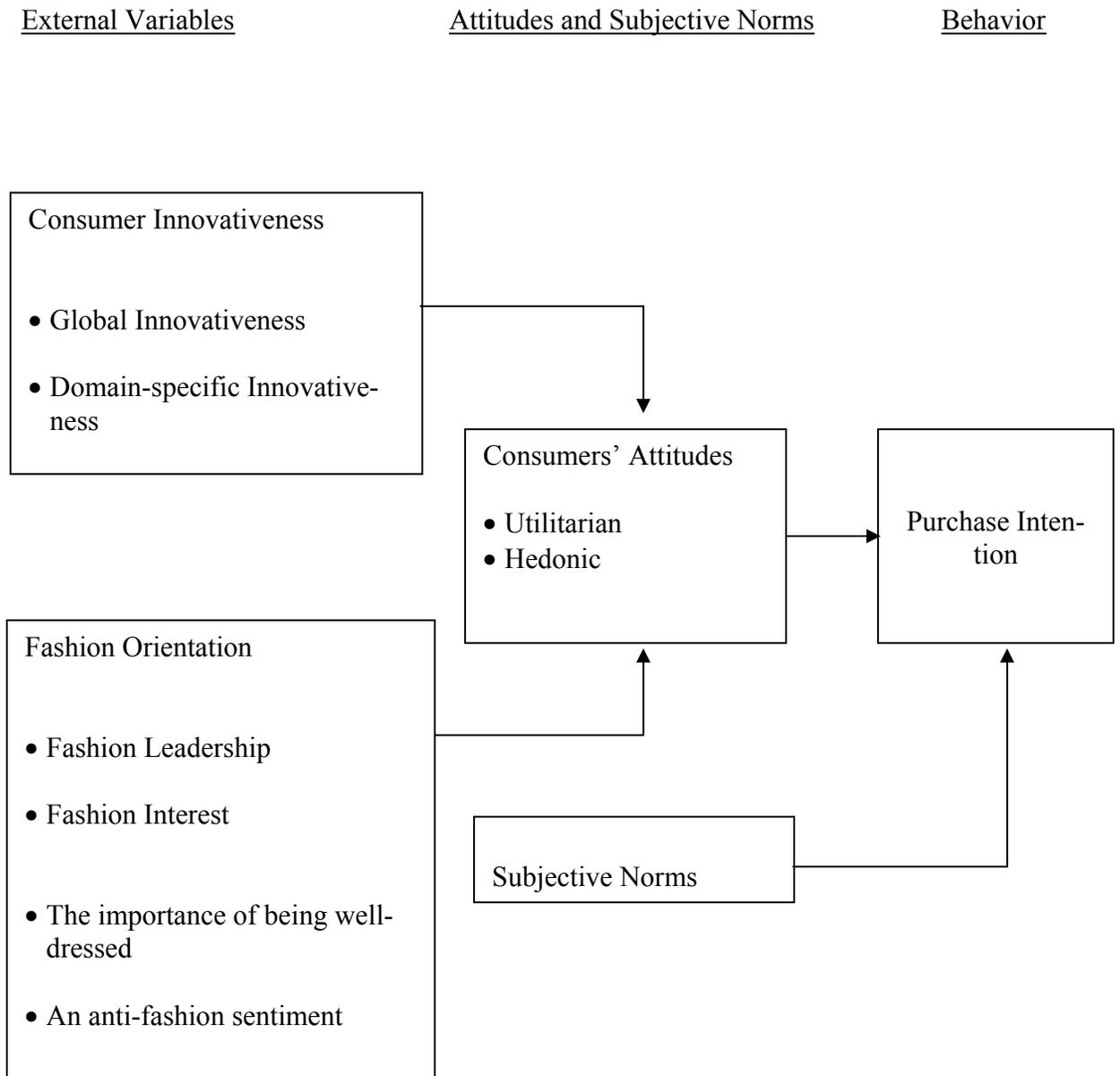
i.e., cognitive innovativeness, and sensory innovativeness (Kirton, 1976). Domain-specific innovativeness, on the other hand, is embodied in particular product categories, or contexts (i.e., fashion innovativeness and technological innovativeness) (Goldsmith & Hofacker, 1991). People, especially young consumers, tend to purchase products that are embedded with innovativeness. One of the most important products to young consumers is a high-tech fashion product that is prevalently purchased by young consumers to express themselves. Since a high-tech fashion product reflects fashion domain, fashion orientation is another important perception concerning consumer behavior because fashion orientation explains the meaning of clothing-fashion in people's life-style. Thus, research is needed to better understand the key innovativeness and fashion orientation relating to Gen Y consumers' attitudes and subjective norms toward behavior. The two dimensions of attitude, utilitarian and hedonic, are likely to be important motivational factors of consumption. Consumers may choose to consume a particular product because of utilitarian- or hedonic-related product attributes. Therefore, by conceptualizing consumers' attitude as bi-dimensional construct, it may provide a better understanding of consumption behavior and enable marketers to advance their products and/or services.

The Conceptual Model

The conceptual model to be examined in the current study is portrayed in Figure 3. Drawn from the theory of reasoned action, the two external variables, i.e., consumer characteristics of consumer innovativeness and fashion orientation are expected to influence consumers' utilitarian and hedonic attitudes toward using a product. In the figure, the in-

fluence of consumer innovativeness on consumers' attitudes will be examined using two concepts of consumer innovativeness: global innovativeness and domain-specific innovativeness. Global innovativeness, a personality trait, is a broad concept that includes cognitive and sensory innovativeness. Domain-specific innovativeness is narrowly defined concept, specific to the nature of the product being examined which includes technological and fashion innovativeness in the current study. The model also indicates that consumers' utilitarian and hedonic attitude toward using a product, as well as subjective norms are expected to influence consumers' purchase intention.

Figure 3. A Conceptual Model of Consumers' Adoption of Hi-Tech Fashion Product



Hypothesis Development

Global Innovativeness and Consumers' Attitudes

As innovativeness represents a new and different experience, it is highly related to consumers' new-product adoption behaviors. A general personality trait, global innovativeness, implies different aspects, such as rational, problem solving, novelty seeking, variety seeking, adventuresomeness, and willingness to change (Carlson & Grossbart, 1985; Midgley & Dowling, 1978) that may help predict consumers' attitudes toward using a product. Foxall's (1995) study involving the software product found that global innovativeness is significant in new-product adoption behavior.

As discussed previously, global innovativeness has been proposed as comprising dimensions, cognitive and sensory innovativeness. As cognitive innovativeness is conceptualized as careful thinking and mental exertions, it is expected that cognitive innovativeness is likely to be related to utilitarian attitudes toward using a product (because a product tends to provide some functional benefits) (Venkatraman & Price, 1990). On the other hand, sensory innovativeness is emotional and takes pleasure in novelty, thus, it is expected that sensory innovativeness is likely to be related to hedonic attitudes toward purchasing a product (because a product tends to provide fun and enjoyable aspects). Venkatraman (1991) found the significant relationship of cognitive and sensory innovativeness toward purchase behavior in personal computers (PC), which represent both utilitarian and hedonic functions. However, no study has examined the impact of cognitive and sensory innovativeness on consumers' attitudes toward using an innovative product

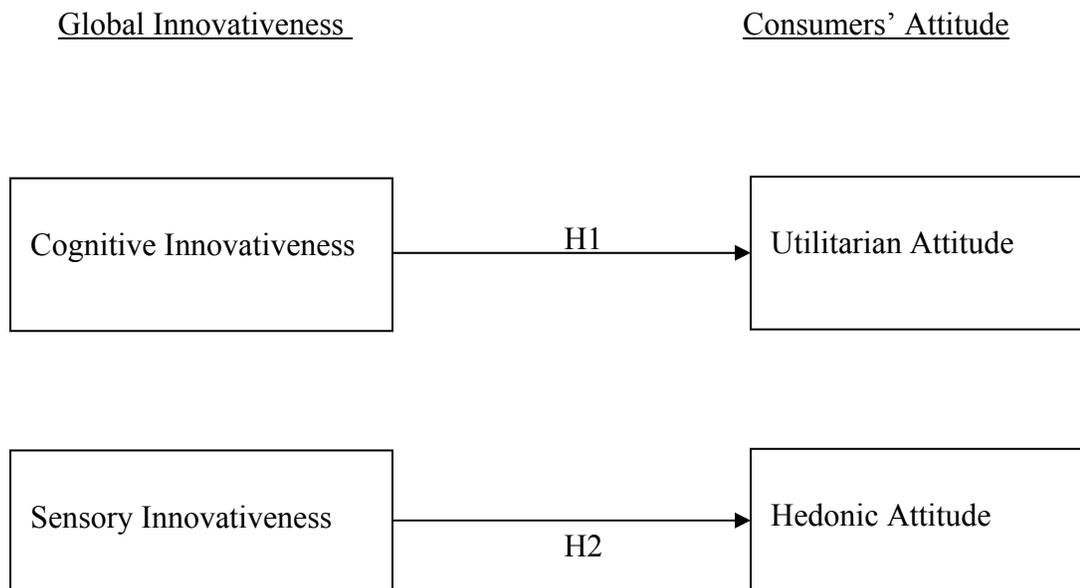
in terms of utilitarian and hedonic separately. With respect to the context of the study, high-tech fashion products also simultaneously possess utilitarian and hedonic attributes.

Based on the above, it is hypothesized that: (see Figure 4)

H1: Cognitive innovativeness has a direct effect on utilitarian attitudes toward using an innovative product.

H2: Sensory innovativeness has a direct effect on hedonic attitudes toward using an innovative product.

Figure 4. Relationship between Global Innovativeness and Consumers' Attitudes



Domain-specific Innovativeness and Consumers' Attitudes

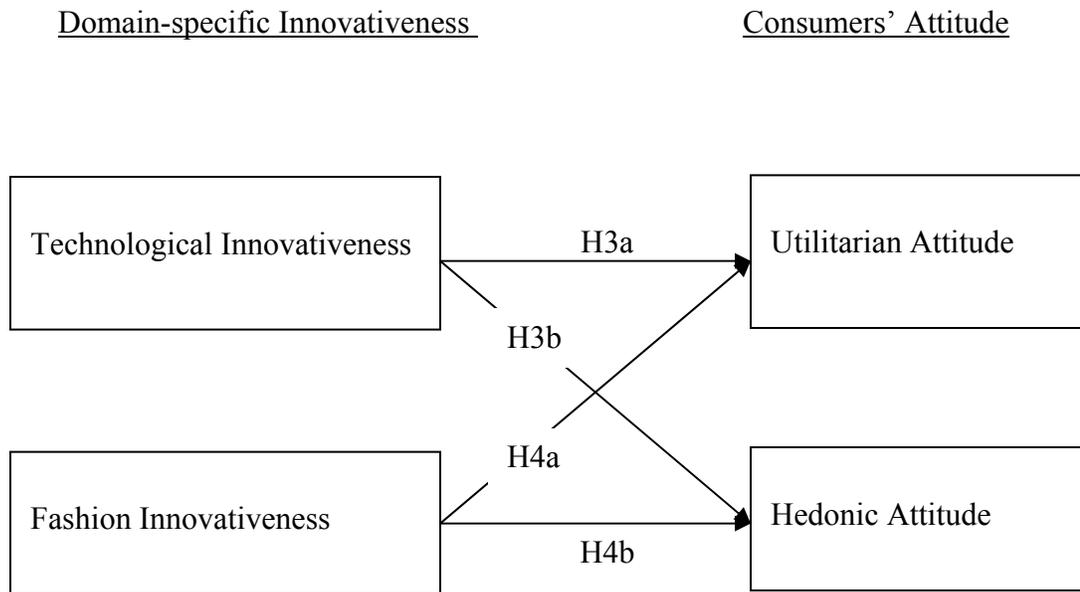
While several researchers have employed the concept of global innovativeness to explain consumers' adoption of new products (e.g., Leavitt & Walton, 1975; Midgley & Dowling, 1978; Ostlun, 1972), others have argued that the global innovativeness may be too broad to predict consumers' product adoption (e.g., Goldsmith & Hofacker, 1991; Midgley & Dowling, 1993; Roehrich et al., 2002). These researchers have suggested that the concept of domain-specific innovativeness may provide better explanation of consumers' adoption of specific new products. The narrow perception, domain-specific innovativeness, reflects the tendency of innovators to be the first in a specific new product line. Goldsmith et al. (1995) found that domain-specific innovativeness has a stronger relationship with a specific product category than global innovativeness. Because it encourages consumers to learn about and accept new products in a specific product category (Goldsmith & Hofacker, 1991), fashion and technology as domain-specific contexts of a product have been examined extensively in the previous studies (e.g., Beaudoin et al., 2003; Clark & Fujimoto, 1991; Dosi, 1982; Goldsmith et al., 1999; Martinez & Polo, 1996; Vishwanath & Goldhaber, 2003). These two major domains of an innovation are expected to influence consumers' attitudes toward using a product related to both utilitarian and hedonic aspects of attitudes. Since the product being investigated in the current study possesses both technological and fashion, therefore, it is expected that technological-and fashion-domain innovativeness would have an effect on utilitarian and hedonic dimensions of consumers' attitudes toward using a product. However, the degree of in-

fluence of technological and fashion-domain innovativeness on utilitarian and hedonic attitudes are unknown. Based on the above, it is hypothesized that: (see Figure 5)

H3: Technological innovativeness has a direct effect on both (a) utilitarian and (b) hedonic attitudes toward using an innovative product.

H4: Fashion innovativeness has a direct effect on both (a) utilitarian and (b) hedonic attitudes toward using an innovative product.

Figure 5. Relationship between Domain-Specific Innovativeness and Consumers' Attitudes



Fashion Orientation and Consumers' Attitudes

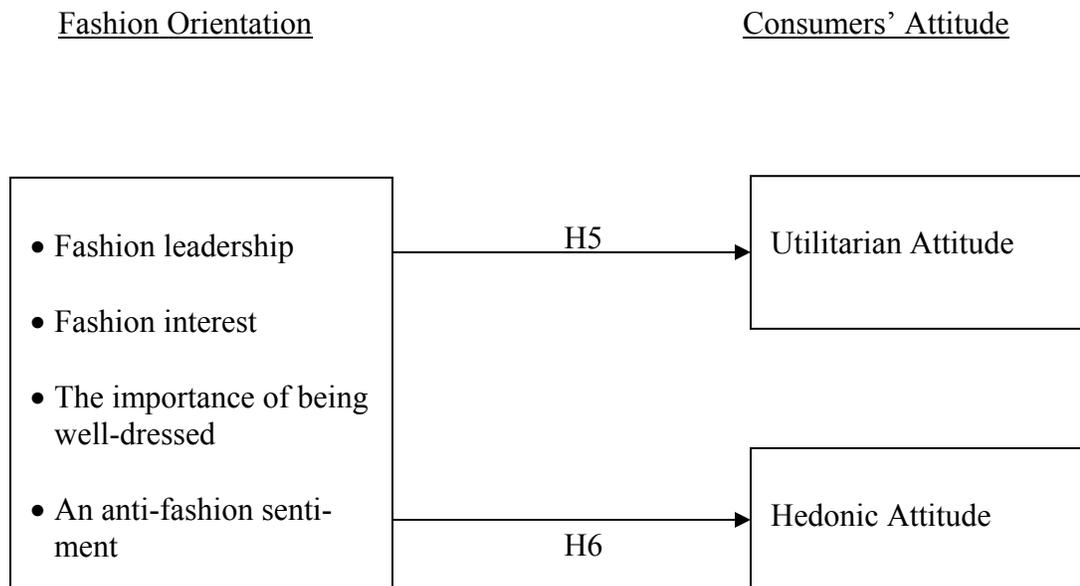
Fashion orientation is a significant factor for fashion leaders or fashion innovators because they tend to value the excitement of buying new fashions (Goldsmith et al., 1995). According to Gatignon and Robertson (1985), innovators, who are generally younger and highly educated, are likely to have positive attitudes toward new experience and have greater opinion leadership. The three components of fashion orientation, which are fashion leadership, fashion interest, and the importance of being well-dressed, are major elements to promote consumers' attitudes toward using products due to the characteristics of each component. That is, those who express high degree of fashion leadership tend to be the first to try new fashion, suggesting that they may be likely to express favorable attitudes toward using a hi-tech fashion product. Likewise, those who display high degree of interest in fashion (e.g., enjoy being involved with fashion-related activities such as reading fashion magazines) and pay great emphasis on being well-dressed may be likely to express favorable attitudes toward using a hi-tech fashion product as well. However, an anti-fashion attitude is an exceptional concept of fashion orientation that proscribes consumers' purchase behavior. In the current study, consumers' attitudes toward purchasing a product are driven by two major motives; utilitarian and hedonic. Thus, it is expected that while three dimensions of fashion orientation; fashion leadership, fashion interest, and the importance of being well-dressed are expected to positively influence both consumers' utilitarian and hedonic attitudes, one dimension of fashion orientation, an anti-fashion sentiment, is expected to negatively influence both consumers' utilitarian and hedonic attitudes.

Based on the above, it is hypothesized that: (see Figure 6)

H5: Fashion orientation related to a) fashion leadership, b) fashion interest, c) the importance of being well-dressed, and d) an anti-fashion sentiment has a direct effect on utilitarian consumers' attitudes toward using an innovative product.

H6: Fashion orientation related to a) fashion leadership, b) fashion interest, c) the importance of being well-dressed, and d) an anti-fashion sentiment has a direct effect on hedonic consumers' attitudes toward using an innovative product.

Figure 6. Relationship between Fashion Orientation and Consumers' Attitudes



Consumers' Attitudes and Purchasing Intentions

The TRA model illustrates how attitudes translate to behavior intentions and ultimately result in consumers' actual behavior. Fishbein and Ajzen (1975) state the importance of attitudes as influencing factors on one's behavior. There has been empirical support for the relationship between attitude and purchase intentions (Ajzen & Fishbein, 1980; Ajzen, 1988, Armitage & Conner, 2001; Chang, 1998; Sheppard et al., 1988; Voss et al, 2003). Attitudes are opposite approaches to actual behaviors because attitudes are interpersonal behaviors. In addition, attitudes can be viewed as an internal orientation, influencing behavior (Finlay et al., 2002). Several researchers note that the more positive consumers' attitudes toward a product (i.e., online shopping, beer, organic food, short message service), the stronger purchasing intentions (Muk, 2007; Smith et al., 2006; Shim, Eastlick, Lotz, & Warrington, 2001; Tarkiainen & Sundqvist, 2005; Wang et al., 2007; Watchravesringkan & Shim, 2003).

It is suggested that the individual's behavioral beliefs affect attitudes because behavioral beliefs are people's subjective thoughts that may determine their attitudes. As Ajzen (1991) explained, the more favorable the attitude, the stronger the intention of behavior. For example, in Tarkianinen and Sundqvist's (2005) study of buying organic food, attitudes are significant in people's purchasing behavior. The awareness of organic food as healthy leads consumers to display a positive attitude toward organic food, which influence them to purchase. Not only food is significant to attitudes, but also in other contexts, such as technological services. For instance, Muk's (2007) study of consumers' intentions to subscribe to short message service found that positive attitudes make more

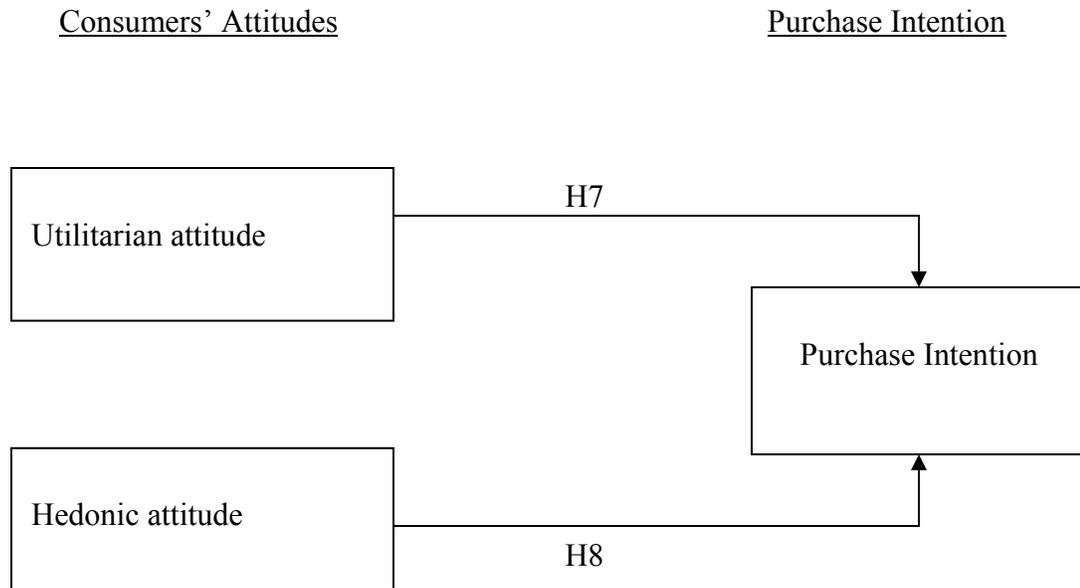
consumers like the new medium. This results in bringing more consumers to join short message service providers. Specific to the context of this study, fashion is also related to an individual's attitude because their interpersonal beliefs lead their attitudes in favorable or unfavorable manners. Thus, the favorable attitudes would result in the affirmative intention to behavior in fashion products. As discussed previously, consumers' attitudes toward purchasing a product are driven by utilitarian and hedonic motives. These two important motives of consumers' attitudes are expected to drive consumers to engage in purchasing behavior.

Based on the above, it is hypothesized that: (see Figure 7)

H7: Utilitarian consumers' attitude toward using an innovative product has a direct effect on their purchase intentions.

H8: Hedonic consumers' attitude toward using an innovative product has a direct effect on their purchase intentions.

Figure 7. Relationship between Consumers' Attitudes and Purchase Intention



Subjective Norms and Purchase Intentions

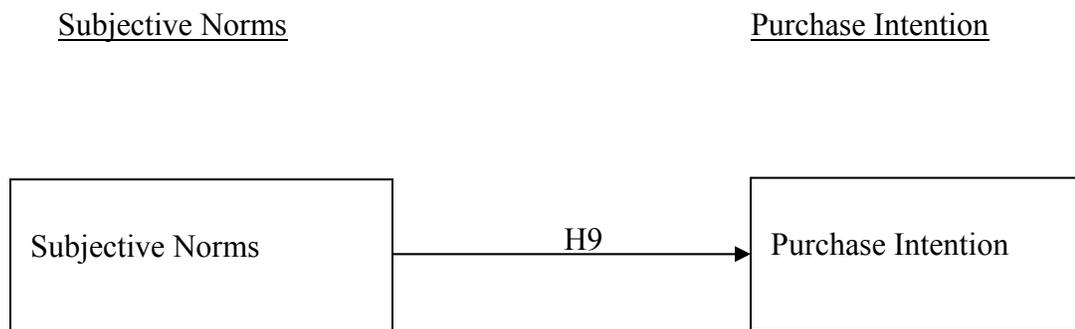
TRA model indicates that consumer attitudes and subjective norms are of importance in predicting consumer behavior (Ajzen, 1988; Ajzen & Fishbein, 1980). While attitudes are interpersonal and internally oriented, subjective norms are socially and externally oriented. A number of consumer researchers found that people who are important to an individual (i.e., friends and family) influence an individual to be favorable or unfavorable towards behavior (Ajzen, 1988; Ajzen and Fishbein, 1980; Armitage & Conner, 2001; Chang, 1998; Sheppard et al., 1988; Shim et al., 2001). Related to the technology context, in addition, Muk (2007) found that young consumers are heavily influenced by the social pressures (e.g., friends) in signing up with short message service or text messaging. Taylor and Todd (1995) examined consumers' adoption of a technological inno-

vation, the VCR-Plus⁺™ (a small electronic device designed to make it easier to use a VCR to tape television shows). It was found that the referent group's opinion was one of the influences on the consumers' decision. The study proved that subjective norms control behavioral tendency. The more positive the subjective norms, the higher the behavioral preference; the more negative the subjective norms, the lower the behavioral preference (Taylor & Todd, 1995).

Based on the aforementioned above, it is hypothesized that: (see Figure 8)

H9: Subjective norms have a direct effect on purchase intentions.

Figure 8. Relationship between Subjective Norms and Purchase Intention



While some researchers suggested that attitudes are more influential than subjective norms in consumers' purchasing decisions (Al-Rafee & Cronan, 2006; Lim & Dubinsky, 2005; Ryan, 1982; Trafimow & Finlay, 1996), others found that subjective norms are more influential than attitudes in predicting behavioral intention (Bommer et al., 1987; Oliver & Bearden, 1985; Shimp & Kavas, 1984). These previous works show that a context where the behavior is taken place determines whether attitudes or subjective norms

are more influential in consumers' purchasing decisions. That is, in some contexts attitudes are more influential than subjective norms in purchasing decisions and vice versa. For example, in the context of purchasing toothpaste (Ryan, 1982) and on-line shopping (Lim & Dubinsky, 2005), internal influences (i.e., attitude) had a stronger impact than external influences (i.e., subjective norms). Otherwise, consumers' own opinions are more likely to influence their actual behavior when compared to others' opinions (e.g., family, friends, or co-workers). On the other hand, in the context of coupon usage (Shimp & Kavas, 1984) and technological innovation usage (Taylor & Todd, 1995), consumers rely more on their social influence, and that socially pressured behavior (subjective norms) has a stronger effect on their actual behavior when compared to interpersonal behavior (attitudes). As was discussed in H9, Subjective Norms and Purchase Intentions, it is expected that among young consumers whose behaviors are highly influenced by their peers, adoption of technological innovation is highly influenced by subjective norms.

Therefore,

H10: Consumers' attitudes have a weaker effect on purchase intentions as compared to subjective norms.

Chapter Summary

The primary objective of this chapter is to provide relevant information related to the key constructs of innovativeness, fashion orientation, consumers' attitudes in hedonic versus utilitarian attitudes, and the influence of subjective norms on consumers' behaviors. This information is then used to develop the proposed conceptual model of external variable-attitudes & subjective norms-purchase intention. The proposed model will be

empirically examined in the following chapter with a number of testable hypotheses in the context of hi-tech fashion products using Generation Y college student samples.

CHAPTER III

METHODOLOGY

This chapter presents the proposed methodology, including: (1) Sample and Procedure; (2) Questionnaire Development; (3) Measures; (4) Statistical Analysis; and (5) Chapter Summary.

As noted in Chapter 1, the three major research objectives guiding the study are:

- 1) To explore the effects of consumer characteristics (i.e., consumer innovativeness and fashion orientation) on consumers' attitudes toward using an innovative product;
- 2) To examine the effect of consumers' attitudes toward using an innovative product on their behavioral intention to adopt that product; and
- 3) To investigate the effect that the perceived importance of significant others (i.e., subjective norms) has on consumers' behavioral intention to adopt an innovative product.

Details are provided below about the methodology to be employed to accomplish these objectives.

Sample and Procedure

Data were collected from a convenience sample of undergraduate students attending the University of North Carolina at Greensboro in Spring 2008. These students were recruited through various classes with the permission of instructors (i.e., CRS 121: Culture, Human Behavior, and Clothing; CRS 231: Introduction to Apparel and Consumer Retailing; RCS 261: Introduction to Consumer Retailing; and CRS 321: Social Psychology of Dress). Following Johnson's (2006) suggestion related to the age of Generation Y members, students between the ages of 18 to 26 were asked to voluntarily participate in the survey. Those students who agree to participate in the current study were provided two identical consent forms to read and sign. They returned one signed copy to the researcher and kept the other one for their personal records. After receiving the signed copy of the consent form, the researcher handed out the questionnaire for them to complete. While some students might be taking more than one above courses during the semester, the researcher asked them whether they have filled out the questionnaire in other classes (e.g., RCS 121) before. If they answered yes, these students were excluded. Approximately 200 responses were collected from these four classes. A student sample was deemed appropriate for several reasons. First, students tend to be homogeneous in nature which is desirable for theory testing (Vishwanath, 2005). Second, college students are a subgroup of Generation Y and a majority of Generation Y individuals are currently in college. Lastly, college students are a prime market for many technological and fashion products (Wolburg & Pokrywczynski, 2001). The particular hi-technology fashion product (i.e., Prada cellular phone) selected as the focus of this study possesses several

strengths. The PRADA Phone by LG (KE 850) represents a marriage of two world-renowned companies, i.e., LG Telecom, the world's leading electronic company, with Prada, a luxury apparel brand. In addition, the brand name Prada is likely to be associated with hedonic (e.g., aesthetic) and utilitarian (e.g., quality, function) values among the participants. A "luxury" brand is associated with better quality and stylish appearance at the highest price of the market, and Gen Ys have a high demand for luxury goods (Farlex, Inc., 2007). Hence, the participants might pay considerable attention to the stimuli (e.g., hi-technological fashion product) used in the current study.

Questionnaire Development

The questionnaire was developed through a comprehensive review of literature as an aid to obtain conceptual and measurement information pertaining to the variables being studied. A list of measurement items have been compiled into a prototype questionnaire. As a result, the written questionnaire (see Appendix A) comprised measures of the following variables: consumer innovativeness (i.e., global innovativeness: cognitive and sensory; and domain-specific innovativeness: technological and fashion), fashion orientation (i.e., fashion leadership, fashion interest, the importance of being well-dressed, and an anti-fashion sentiment), utilitarian and hedonic consumers' attitudes toward using a product, subjective norms, behavioral intention, and general questions assessing consumers' perception of an innovative product (i.e., Prada cellular phone). Pictures of the Prada cellular phone and the product description from the website were inserted ("Mobile innovation meets Avant-Garden design," 2007) into the questionnaire prior to the measures

related to consumers' utilitarian and hedonic attitudes toward using a product (see Appendix A). Participants were asked to first respond to the items pertaining to consumer characteristics (i.e., consumer innovativeness and fashion orientation). Then, the participants were presented an opportunity to view the pictures and read the product description (i.e., Prada cellular phone) in order to help them identify with the product before answering questions related to their attitudes, subjective norms, behavioral intention, and general questions about the product. Lastly, demographic information were assessed as well, including age, gender, ethnicity, income, and year at school.

Measures

The scales of measurement used for this survey were drawn from previous literature related to consumer behavior (e.g., Clark & Goldsmith, 2006; Goldsmith et al., 1998; Venkantraman & Price, 1990; Voss et al., 2003). Where possible, these measurement scales were selected for each construct for validation purposes. The utilitarian and hedonic attitudes were assessed using a semantic differential scale. All of the other constructs in the study (i.e., innovativeness, fashion orientation, subjective norms, and behavioral intention) were measured using a seven-point Likert-type scale. The scales will range from *strongly disagree* (1) to *strongly agree* (7) (see Appendix A).

Table 1

Measurement and Its Source

Variable	# of Items	Source of Items	Scale
Consumer Innovativeness	30 (section 1)		Seven-point Likert-type
Global innovativeness	19		
•Cognitive innovativeness	# 1 ~ # 8	Venkatraman, M. P. & Price, L. P. (1990)	
•Sensory innovativeness	# 9 ~ # 16	Venkatraman, M. P. & Price, L. P. (1990)	
•Global innovativeness	# 23 ~ # 25	Clark, R. A. & Goldsmith, R. E. (2006)	
Domain-specific innovativeness	11 # 17 ~ # 22, # 26 ~ # 30	Goldsmith, R. E., d'Hauteville, F. & Flynn, L. R. (1998)	
Fashion Orientation	17 (section 2)		Seven-point Likert-type
Fashion leadership	# 1 ~ # 5	Gutman, J. & Mill, M. K. (1982)	
Fashion interest	# 6 ~ # 10	Gutman, J. & Mill, M. K. (1982)	
The importance of being well-dressed	# 11 ~ # 14	Gutman, J. & Mill, M. K. (1982)	
An anti-fashion sentiment	# 15 ~ #17	Gutman, J. & Mill, M. K. (1982)	
Subjective Norms	2 (section 3)	Fishbein, M. (1967)	Seven-point Likert-type
Consumers' Utilitarian and Hedonic Attitudes	14 (section 4)		Seven-point semantic differential
Hedonic attitudes	# 1 ~ # 8	Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003)	
Utilitarian attitudes	# 9 ~ # 14	Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003)	
Behavioral Intention	5 (section 5)	Baker, M. J. & Churchill, G. A. Jr. (1977); Petty, R. E., Cacioppo, J. T., & Schumann, D. W. (1983)	Seven-point Likert-type
General Questions about PRADA Phone	13 (section 6)	Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989)	Seven-point Likert-type
Demographic Information	6 (section 7)		
Gender			Two Categories
Age			Ratio
Major			Ratio
Ethnicity			Five Categories
Year at School			Four Categories
Annual Family Household Income			Seven Categories

Consumer Innovativeness

Consumer innovativeness was measured using two different innovativeness scales; global innovativeness (cognitive and sensory innovativeness) and domain-specific innovativeness. The consumer innovativeness scale for the current study was comprised of thirty items. Of these, the nineteen items that assessed global innovativeness (cognitive and sensory) were adapted from Clark and Goldsmith's (2006) and Venkantraman and Price's (1990) studies. Clark and Goldsmith's (2006) three-item scale captures global innovativeness and is designed to assess the innate personality of innovativeness, i.e., the degree of an individual's propensity to adopt new things earlier than others. Venkantraman and Price's (1990) cognitive and sensory innovativeness measurement has eight items. Previous research has revealed the satisfactory reliability and validity of this cognitive and sensory innovativeness scale (Venkantraman, 1991; Venkantraman and Price, 1990). The other eleven items that assessed domain-specific innovativeness (technology and fashion) were adapted from Goldsmith et al. (1998). Goldsmith, d'Hauteville, and Flynn's (1998) domain-specific innovativeness scale proved to be unidimensional and highly reliable (Flynn & Goldsmith, 1993). All thirty items were measured using a seven-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (7). Example statements are "I sometimes like to find out the meaning of words I don't know," "I like having a vivid dream with different, strange colors and sounds," "I feel that I am an innovative person," "Generally, I am among the last in my circle of friends to buy a new communication devices (e.g., cell phone, iPOD)," and "If I heard that a fashionable product (e.g., clothing) was available through a local store, I would be interested in buying it."

Fashion Orientation

Four dimensions (i.e., fashion leadership, fashion interest, the importance of being well-dressed and an anti-fashion sentiment) of fashion orientation were measured with seventeen items, adopted from the instrument used in Gutman and Mill's (1982) study. Of these, five items captured fashion leadership (e.g., "It is important for me to be a fashion leader"), five items captured fashion interest (e.g., "I always buy at least one outfit of the latest fashion"), four items assessed the importance of being well-dressed (e.g., "What you think of yourself is reflected by what you wear"), and three items assessed an anti-fashion sentiment (e.g., "I resent being told what to wear by so-called fashion experts"). All seventeen items were measured using a seven-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (7). This scale has been widely employed in measuring shopping behavior and lifestyle characteristics and has gone through numerous reliability and validity checks which have been reported on in the literature (Chung, 1996; Darley & Johnson, 1993; Huddleston et al., 1993; Lee et al., 2004; Park & Burns, 2005).

Consumers' Utilitarian and Hedonic Attitudes

Consumers' utilitarian and hedonic attitudes toward using a product were measured with fourteen items, adopted from Voss, Spangenberg, and Grohmann's (2003) study. All fourteen items were measured using a seven-point semantic differential scale. The scale were anchored on the poles using different adjectives, such as *bad/good*, *unfavorable/favorable*, *unpleasant/pleasant*, and *unattractive/attractive*. Consumers' utilitarian and hedonic attitudes have revealed a satisfactory level of reliability and validity in a previous study (Voss et al., 2003).

Subjective Norms

Subjective norms indicate the importance that consumers place on the influence of significant others (e.g., friends, family members) when making purchase decisions. This variable was measured with two items adopted from Fishbein (1967). This scale has gone through numerous reliability and validity checks (Ajzen, 1988; Fishbein and Ajzen, 1975). These two items were measured using a seven-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (7).

Behavioral Intention

Behavioral intention was measured with five items adapted from numerous studies, including Baker and Churchill (1977) and Petty, Cacioppo, and Schumann (1983). Intention to purchase questions attempt to measure the outcome of the consumer's decision process before the purchase act is carried out. For the behavioral intention variable, five items assessed the potential to try the product, to buy the product, and to seek out the product. All five items were measured using a seven-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (7).

General Questions

There were thirteen items located in this section. While some items in this section were adapted from Davis, Bagozzi, and Warshaw (1989), other items were developed specifically for the current study by the researchers (e.g., "This product is new," and "This product is fashionable"). Some of these items were employed to assess whether the product used in the study (i.e., Prada cellular phone) was perceived among participants as an innovative, fashion product and others are general questions about the product. All

thirteen items were measured using a seven-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (7).

Demographic Information

Demographic information was obtained related to participants' 1) gender, 2) age, 3) major, 4) ethnicity, 5) year at school, and 6) annual family household income. Data related to gender, ethnicity, and year at school was nominal (categorical) data. Data related to age and major was ratio data. Data related to annual family household income was ordinal data.

Statistical Analysis

Data obtained in this study was entered in SPSS for statistical analysis. Descriptive analyses (e.g., frequency, means, and modes) were run on data related to demographic information. The reliability of each multi-item scale was assessed prior to subsequent analyses. A series of multiple regressions was employed to answer all hypotheses.

Chapter Summary

This chapter provides detailed information pertaining to research methodology (i.e., sample and procedure, questionnaire development, measures, and statistical analysis) that will be employed to answer research hypotheses addressed in the previous chapter. The following chapter will present the analysis and its results.

CHAPTER IV

RESULTS

This chapter consists of three major sections: participant characteristics, descriptive statistics, and hypotheses testing. The first section begins with an overview of participants' characteristics. Then, descriptive information about variables related to global innovativeness, domain-specific innovativeness, attitudes, subjective norms, and purchase intentions is presented. Finally, the chapter concludes with the results of hypotheses testing.

Participant Characteristic

A total of 206 completed surveys were returned. However, six surveys were missing, and four surveys were discarded from the analyses for being out of the age range (i.e., we refer to Generation Y as those who are between 18 to 26 years old). Therefore, the final sample consisted of 196 usable questionnaires. This sample was collected from various undergraduate classes (e.g., Social Psychology of Dress) offered at a Southeastern university located in North Carolina, USA.

The demographic characteristics of the sample are summarized in Table 2. The descriptive analysis of the survey results revealed an average age of participants of 20.39 years old. Of these, approximately 88% were female (n=174) and approximately 11% were male (n=22). The degree majors represented among students were Consumer, Appa-

rel, and Retail Studies (46%), Elementary Education (12%), Business Marketing (7%), Psychology (4%), and Art (4%). In terms of ethnicity, Caucasians were the majority group (63%); the respondents also included African-Americans (25%), Asian-Americans (6%), and Hispanic-Americans (1%). As for annual family household incomes, about 23% were over \$100,000, 20% were between \$60,001 to \$80,000, 16% were between \$80,001 to \$100,000, 15% were between \$40,001 to \$60,000, 14% were between \$20,001 to \$40,000, 8% were less than \$10,000, and the rest (4%) were between \$10,001 to \$20,000. In addition, after deleting incomplete responses, the remaining sample consisted of the following: freshmen (17%), sophomores (36%), juniors (27%), and seniors (20%).

Table 2

Demographic Characteristics of the Sample (n = 196)

Demographic Variable		Frequency	Percent (%)
Gender			
	Male	22	11.2
	Female	174	88.2
Age			
	18 years old	19	9.8
	19 years old	46	23.7
	20 years old	54	27.8
	21 years old	32	16.5
	22 years old	21	10.8
	23 years old	9	4.6
	24 years old	8	4.1
	25 years old	3	1.5
	26 years old	2	1.0

Table 2

Demographic Characteristics of the Sample (n = 196) (continued)

Majors		
Consumer, Apparel, and Retail Studies	90	46.2
Elementary Education	24	12.3
Business Marketing	13	6.7
Psychology	8	4.1
Art	8	4.1
Ethnicity		
Caucasian	124	63.3
African-American	49	25.0
Asian-American	11	5.6
Hispanic-American	2	1.0
Annual Family Household Income		
\$10,001 - \$20,000	7	3.8
\$20,001 - \$40,000	26	14.3
\$40,001 - \$60,000	27	14.8
\$60,001 - \$80,000	37	20.3
\$80,001 - \$100,000	29	15.9
>\$100,001	41	22.5
Year at School		
Freshmen	34	17.3
Sophomore	70	35.7
Junior	52	26.5
Senior	40	20.4

Descriptive Statistics

Table 3 shows the descriptive statistics (e.g., means, medians, standard deviations and ranges) for the variables. The means of all constructs were close to or above the midpoint (i.e., 4.00), except for the sensory innovativeness ($M_{\text{Sensory Innovativeness}} = 3.09$), subjective norms ($M_{\text{Subjective Norms}} = 2.23$), and purchase intention ($M_{\text{Purchase Intention}} = 2.55$) con-

structs, whose means were lower than 4.00. The standard deviation ranged from 1.07 ($M_{\text{Cognitive Innovativeness}} = 4.66$) to 1.67 ($M_{\text{Purchase Intention}} = 2.55$), suggesting substantial variances in the responses.

To ensure the reliability of the variables, Cronbach's alpha was calculated. Cronbach's alpha is a widely used measure for assessing the reliability of a psychometrically developed scale (Peter, 1979). In addition, Cronbach's alpha was used to examine the internal consistency of the measures. The value of the Cronbach's coefficient ranges from 0 and 1, where 0 indicates a completely unreliable measure and 1 indicates a completely reliable measure. Nunnally and Bernstein (1994) recommend that the reliability of all latent constructs should exceed the benchmark of 0.70 as an indication of acceptable measures. Table 3 shows the reliability of all measures used in the study, except subjective norm because subjective norm was assessed using one item. As a result, there was no reliability reported for subjective norm measure. Overall, information from Table 3 indicates that all measures were reliable, except the anti-fashion sentiment variable ($\alpha = 0.55$). The values for Cronbach's coefficients ranged from 0.97 (purchase intention) to 0.76 (technological innovativeness). In summary, all measures demonstrated acceptable degree of reliability, except anti-fashion sentiment ($\alpha = 0.55$). The low reliability of anti-fashion sentiment may be that items used to assess anti-fashion sentiment might not work well together to reflect the anti-sentiment construct.

Table 3

Descriptive Statistics of Variables

	Number Of Items	Mean	Median	Std.	Range	Reliability
Global Innovativeness						
Cognitive Innovativeness	8	4.66	4.75	1.07	6.00	.814
Sensory innovativeness	8	3.09	2.88	1.39	6.00	.871
Domain-Specific innovativeness						
Technological Innovativeness	6	4.04	4.00	1.20	6.00	.755
Fashion Innovativeness	5	5.20	5.50	1.37	5.80	.855
Fashion Orientation						
Fashion Leadership	5	4.82	5.00	1.52	6.00	.917
Fashion Interest	5	5.03	5.20	1.41	5.60	.824
The Importance of Being Well-Dressed	4	5.56	5.75	1.23	6.00	.838
An Anti-Fashion Sentiment	3	4.48	4.67	1.23	6.00	.547
Attitudes						
Utilitarian	6	4.46	4.50	1.34	6.00	.895
Hedonic	6	5.19	5.33	1.32	6.00	.937
Subjective Norms	1	2.23	2.00	1.54	6.00	N/A
Purchase Intention	4	2.55	2.00	1.67	6.00	.968
Product's Innovativeness	3	4.54	4.67	1.4	6.00	.793

N/A: not applicable because measurement consists of only one item.

Hypotheses Testing

A series of multiple regressions was performed for testing all hypotheses. The first set of multiple regression analyses was conducted to examine the relationship between consumer innovativeness and consumer attitudes. The second set of multiple regression analyses was conducted to examine the relationship between fashion orientations and consumer attitudes. The third set of multiple regression analyses was conducted to examine the relationships between consumer attitudes, subjective norms, and purchase intentions.

Relationship between consumer innovativeness and consumer attitudes

The first multiple regression analysis was performed using consumers' utilitarian attitude as a dependent variable and the consumer innovativeness measures (i.e., global and domain-specific) as independent variables (see Table 4). This analysis was performed to test the hypotheses concerning the relationships between cognitive innovativeness, technological innovativeness, fashion innovativeness, and utilitarian attitudes toward using innovative products (i.e., Hypothesis 1, Hypothesis 3, and Hypothesis 4). The regression model itself is significant and indicates that consumer innovativeness was associated with consumers' utilitarian attitudes ($F_{(3, 172)} = 12.492, p < .001$). The model accounted for roughly 18% of the variance explained ($R^2 = 0.179$). The somewhat low R^2 coefficient (0.179) suggests that the variables included in the regression equation did not fully account for utilitarian attitudes and other variables might have a significant impact.

The second multiple regression analysis was performed using consumers' hedonic attitude as a dependent variable and consumer innovativeness (i.e., global and domain-

specific) as independent variables (see Table 5). This analysis was performed to test the hypotheses concerning the relationships between sensory innovativeness, technological innovativeness, fashion innovativeness, and hedonic attitudes toward using innovative products (i.e., Hypothesis 2, Hypothesis 3, and Hypothesis 4). The regression model itself is significant and indicates that consumer innovativeness was associated with consumers' hedonic attitudes ($F_{(3, 175)} = 29.842, p < .001$). The model accounted for roughly 28% of the variance explained ($R^2 = 0.282$). The somewhat low R^2 coefficient (0.282) suggests that the variables included in the regression equation also did not fully account for hedonic attitudes.

Table 4

Multiple Regression Results of Cognitive Innovativeness, Domain-Specific Innovativeness, and Consumers' Utilitarian Attitudes

Consumers' Utilitarian Attitudes			
	Beta (β) Coefficient ^a	t-value	p-value
Global Innovativeness			
Cognitive innovativeness	.044	.636	p = .526
Sensory innovativeness	N/A	N/A	N/A
Domain-Specific innovativeness			
Technological Innovativeness	.293	3.950	p = .000
Fashion innovativeness	.215	2.885	p = .004
		Adjusted $R^2 = .165$ $R^2 = .179$ $F_{(3, 172)} = 12.492, p < .001$	
N/A: not applicable			

After performing the first set of regression analyses, the information presented in Tables 4 and 5 was used to test Hypothesis 1, Hypothesis 2, Hypothesis 3, and Hypothesis 4.

Table 5

Multiple Regression Results of Sensory Innovativeness, Domain-Specific Innovativeness, and Consumers' Hedonic Attitudes

Consumers' Hedonic Attitudes			
	Beta (β) Coefficient ^a	t-value	p-value
Global Innovativeness			
Cognitive Innovativeness	N/A	N/A	N/A
Sensory innovativeness	-.061	-.925	p = .356
Domain-Specific innovativeness			
Technological Innovativeness	.263	3.779	p = .001
Fashion Innovativeness	.352	4.969	p = .001
		Adjusted R ² = .269	
		R ² = .282	
		F _(3, 175) = 29.842, p < .001	
N/A: not applicable			

Hypothesis 1 predicted that cognitive innovativeness has a direct effect on utilitarian attitudes toward using an innovative product. Results revealed that cognitive innovativeness did not significantly affect consumers' utilitarian attitudes toward using an inno-

vative product ($\beta = .044$, t -value = 0.636, $p > 0.500$) (see Table 4). Therefore, H₁ was not supported. That is, consumers' cognitive innovativeness did not affect their utilitarian attitudes toward using an innovative product. In this study of innovation adoption, careful thinking or mental exertions that are conceptualized as cognitive innovativeness were not likely to be related to functional benefits, which are considered as utilitarian attitudes.

Hypothesis 2 predicted that sensory innovativeness has a direct effect on hedonic attitudes toward using an innovative product. Results revealed that sensory innovativeness did not significantly affect consumers' hedonic attitudes toward using an innovative product ($\beta = -.061$, t -value = -0.925, $p > 0.500$) (see Table 5). Therefore, H₂ was not supported. That is, when consumers adopted an innovative product, their sensory innovativeness did not influence their hedonic attitudes. The current study did not support the previous studies, which revealed that both cognitive and sensory innovativeness have significant effects on functional and hedonic products (Venkatraman & MacInnis, 1985; Venkatraman, 1991).

Hypothesis 3 proposed that technological innovativeness has a direct effect on both (a) utilitarian and (b) hedonic attitudes toward using an innovative product. Results revealed that technological innovativeness significantly affected both (a) utilitarian ($\beta = .293$, t -value = 3.950, $p < .001$) (see Table 4) and (b) hedonic attitudes ($\beta = .263$, t -value = 3.779, $p < .001$) (see Table 5). Therefore, H₃ was supported. The technological domain of consumer innovativeness influenced consumers' utilitarian and hedonic attitudes toward using an innovative product. In addition, in terms of how much technological innovativeness influenced utilitarian and hedonic attitudes, respondents indicated that

the degree of positive influence for the utilitarian and hedonic dimensions of their attitudes toward using an innovative product was very similar. However, technological innovativeness is slightly more positively related to utilitarian attitudes ($\beta = .293$, t -value = 3.950) than hedonic attitudes ($\beta = .263$, t -value = 3.779).

Hypothesis 4 proposed that fashion innovativeness has a direct effect on both (a) utilitarian and (b) hedonic attitudes toward using an innovative product. Results revealed that fashion innovativeness significantly affected both (a) utilitarian ($\beta = .215$, t -value = 2.885, $p < .01$) (see Table 4) and (b) hedonic attitudes ($\beta = .352$, t -value = 4.969, $p < .001$) (see Table 5). Therefore, H_4 was supported. Similar to what was found in testing hypothesis H_3 , results in Tables 4 and 5 report that fashion innovativeness influences both utilitarian and hedonic attitudes. However, fashion innovativeness has a slightly different degree of influence on different dimensions of attitudes. That is, respondents indicated that fashion innovativeness was more positively related to hedonic attitudes ($\beta = .352$, t -value = 4.969) than utilitarian attitudes ($\beta = .215$, t -value = 2.885).

In sum, as hypothesized, domain-specific innovativeness did impact both utilitarian and hedonic attitudes toward using an innovative product. Similar to the past studies, domain-specific innovativeness is related to consumers' adoption of specific new products (Goldsmith & Hofacker, 1991; Leavitt & Walton, 1975; Midgley & Dowling, 1993; Ostlun, 1972; Roehrich et al., 2002).

Relationship between fashion orientation and consumer attitudes

The third multiple regression analysis was performed using consumers' utilitarian attitude as a dependent variable and fashion orientation as an independent variable (see

Table 6). The model significantly explains that fashion orientation was associated with consumers' utilitarian attitudes ($F_{(4, 185)} = 5.914, p < .001$) and accounted for roughly 11% of the variance explained ($R^2 = 0.113$). The somewhat low R^2 coefficient (0.113) suggests that the variables included in the regression equation did not fully account for utilitarian attitudes.

Table 6

Multiple Regression Results of Fashion Orientation and Consumers' Utilitarian Attitudes

Consumers' Utilitarian Attitudes			
	Beta (β) Coefficient ^a	t-value	p-value
Fashion Orientation			
Fashion Leadership	-.039	-.366	p = .715
Fashion Interest	.157	1.402	p = .163
The Importance of Being Well-Dressed	.216	2.248	p = .026
An Anti-Fashion Sentiment	-.105	-1.483	p = .140
Adjusted $R^2 = .094$ $R^2 = .113$ $F_{(4, 185)} = 5.914, p < .001$			

We employed information about the multiple regression results from Table 6 to test Hypothesis 5. Hypothesis 5 predicted that fashion orientation related to a) fashion leadership, b) fashion interest, c) the importance of being well-dressed, and d) anti-fashion sentiment has a direct effect on consumers' utilitarian attitudes toward using an innovative product. Results revealed that the effect of fashion leadership on the utilitarian dimension of consumers' attitudes toward using an innovative product was not significant ($\beta = -.039$, t -value = -0.366, $p > .05$), rejecting H_{5a} . Similar to fashion leadership, participants' fashion interest had no significant influence on utilitarian attitudes ($\beta = .157$, t -value = 1.402, $p > .05$), rejecting H_{5b} . However, the importance of being well dressed had a positive impact on utilitarian attitudes ($\beta = .216$, t -value = 2.248, $p < .05$), supporting H_{5c} . Contrary to the importance of being well-dressed, the effect of anti-fashion sentiment was statistically not significant on utilitarian attitudes ($\beta = -.105$, t -value = -1.483, $p > .05$), rejecting H_{5d} . Of these four dimensions of fashion orientation, only the importance of being well-dressed supported the hypothesis.

The fourth multiple regression analysis was performed using consumers' hedonic attitude as a dependent variable and fashion orientation as an independent variable (see Table 7). The model significantly explains that fashion orientation was associated with consumers' hedonic attitudes ($F_{(4, 184)} = 12.804$, $p < .001$) and accounted for roughly 17% of the variance explained ($R^2 = 0.166$). The somewhat low R^2 coefficient (0.166) suggests that the variables included in the regression equation also did not entirely explain hedonic attitudes.

Table 7

Multiple Regression Results of Fashion Orientation and Consumers' Hedonic Attitudes

Consumers' Hedonic Attitudes			
	Beta (β) Coefficient ^a	t-value	p-value
Fashion Orientation			
Fashion Leadership	.062	.603	p = .547
Fashion Interest	.195	1.748	p = .082
The Importance of Being Well-Dressed	.149	1.558	p = .121
An Anti-Fashion Sentiment	-.149	-2.171	p = .031
		Adjusted R ² = .148	
		R ² = .166	
		F _(4, 184) = 12.804, p < .001	

We employed information about multiple regression results from Table 7 to test Hypothesis 6. Hypothesis 6 predicted that fashion orientation related to a) fashion leadership, b) fashion interest, c) the importance of being well-dressed, and d) anti-fashion sentiment has a direct effect on consumers' hedonic attitudes toward using an innovative product. Results revealed that the effect of fashion leadership on hedonic dimensions of consumers' attitudes toward using an innovative product was not significant ($\beta = .062$, t -value = 0.603, $p > .05$), rejecting H_{6a}. In addition, respondents' fashion interest did not significantly affect hedonic attitudes ($\beta = 0.195$, t -value = 1.748, $p > .05$), rejecting H_{6b}.

Likewise, the importance of being well dressed did not significantly impact hedonic attitudes ($\beta = .149$, t -value = 1.558, $p > .05$), rejecting H_{6c} . Although anti-fashion sentiment statistically influenced hedonic attitudes, but the direction was opposite to the one hypothesized ($\beta = -1.49$, t -value = -2.171, $p < .05$). Thus, H_{6d} was rejected.

Relationship between consumer attitudes, subjective norms, and purchase intention

The next multiple regression analysis was performed using consumers' purchase intention as a dependent variable and consumers' attitudes (i.e., utilitarian and hedonic) and subjective norm as independent variables (see Table 8). The model significantly explains that the two dimensions of consumers' attitudes (utilitarian and hedonic) and subjective norms were associated with consumers' purchase intention ($F_{(3, 187)} = 44.863$, $p < .001$) and accounted for roughly 42% of the variance explained ($R^2 = 0.419$). The R^2 coefficient (0.419) suggests that the variables included in the regression equation did somewhat explain consumers' purchase intention.

Table 8

Multiple Regression Results of Consumers' Utilitarian Attitudes, Hedonic Attitudes, and Subjective Norms

	Consumers' Purchase Intention		
	Beta (β) Coefficient ^a	t-value	p-value
Consumers' Utilitarian Attitudes	.287	2.931	p = .004
Consumers' Hedonic Attitudes	.210	2.218	p = .028
Subjective norms	.443	6.555	p = .000

$$\begin{aligned} \text{Adjusted } R^2 &= .409 \\ R^2 &= .419 \\ F_{(3, 187)} &= 44.863, p < .001 \end{aligned}$$

We employed information of multiple regression results from Table 8 to test Hypotheses 7 through 9. Hypothesis 7 proposed that consumers' utilitarian attitudes toward using an innovative product have a direct effect on their purchase intentions. Results revealed that, as hypothesized, consumers' utilitarian attitudes significantly affect purchase intention ($\beta = .287$, t -value = 2.931, $p < .01$). Therefore, H_7 was supported.

Hypothesis 8 proposed that consumers' hedonic attitude toward using an innovative product has a direct effect on their purchase intentions. Results revealed that, as hypothesized, consumers' hedonic attitudes significantly affect purchase intention ($\beta = .210$, t -value = 2.218, $p < .05$). Therefore, H_8 was supported.

Furthermore, these results suggested that consumers' utilitarian attitude was likely to exert a stronger impact on purchase intention than consumers' hedonic attitudes due to a greater value of the beta coefficient for the utilitarian attitude variable than the hedonic attitude variable ($\beta_{\text{Utilitarian}} = 0.287$ vs. $\beta_{\text{Hedonic}} = 0.210$).

Hypothesis 9 proposed that subjective norms have a direct effect on purchase intention. Results revealed that, as hypothesized, subjective norms significantly affect purchase intention ($\beta = .443$, t -value = 6.555, $p < .001$). Therefore, H_9 was supported.

We also performed two additional regression analyses (two different models) to examine whether subjective norms displayed a stronger effect than consumers' attitude (utilitarian and hedonic) on purchase intention (see Tables 9 and 10). Table 9 shows that

the Model 1 (purchase intention as a dependent variable and consumers' utilitarian attitudes and subjective norms as independent variables) significantly explains that consumers' utilitarian attitudes and subjective norms were associated with consumers' purchase intention ($F_{(2, 190)} = 64.757, p < .001$) and accounted for roughly 41% of the variance explained ($R^2 = 0.405$). The R^2 coefficient (0.405) suggests that the variables included in the regression equation did somewhat explain consumers' purchase intention.

Table 9

Multiple Regression Results of Consumers' Utilitarian Attitudes and Subjective Norms

Consumers' Purchase Intention			
	Beta (β) Coefficient ^a	t-value	p-value
Consumers' Utilitarian Attitudes	.335	5.416	p = .000
Subjective norms	.417	6.734	p = .000
Adjusted $R^2 = .399$ $R^2 = .405$ $F_{(2, 190)} = 64.757, p < .001$			

Furthermore, Table 10 shows that the Model 2 (purchase intention as a dependent variable and consumers' hedonic attitudes and subjective norms as independent variables) significantly explains that consumers' utilitarian attitudes and subjective norms were associated with consumers' purchase intention ($F_{(2, 188)} = 60.557, p < .001$) and accounted for roughly 39% of the variance explained ($R^2 = 0.392$). The R^2 coefficient (0.392) sug-

gests that the variables included in the regression equation did somewhat explain consumers' purchase intention.

Table 10

Multiple Regression Results of Consumers' Hedonic Attitudes and Subjective Norms

Consumers' Attitudes and Subjective Norms			
	Beta (β) Coefficient ^a	t-value	p-value
Consumers' Hedonic Attitudes	.299	4.995	p = .000
Subjective Norms	.463	7.728	p = .000
Adjusted $R^2 = .385$ $R^2 = .392$ $F_{(2, 188)} = 60.557, p < .001$			

To test Hypothesis 10, we relied on information from Tables 9 and 10. Hypothesis 10 proposed that consumers' attitudes have a weaker effect on purchase intentions than do subjective norms. Table 9 revealed that the beta coefficient for subjective norms was higher than the beta coefficient for consumers' utilitarian attitudes ($\beta_{\text{Subjective Norms}} = 0.417$ vs. $\beta_{\text{Utilitarian}} = 0.335$), suggesting that subjective norm was likely to exert a stronger effect on purchase intention than consumers' utilitarian attitudes. An additional multiple regression analysis (see Table 10) also revealed that the beta coefficient for subjective norms was higher than the beta coefficient for consumers' hedonic attitudes ($\beta_{\text{Subjective Norms}} =$

0.463 vs. $\beta_{\text{Hedonic}} = 0.299$), suggesting that subjective norm was likely to exert a stronger effect on purchase intention than consumers' hedonic attitudes. Based on such results, therefore, it was concluded that subjective norms have a stronger effect on purchase intentions than do consumers' attitudes, supporting H₁₀. That is, among Generation Y consumers, subjective norms were likely to exhibit a stronger influence on their behavioral intention than their attitudes.

The results of all hypotheses testing are summarized in Table 11.

Table 11

Summary of the Results of Hypotheses

	Hypothesis	Results
H1	Cognitive innovativeness has a direct effect on consumers' utilitarian attitudes toward using an innovative product.	Not supported
H2	Sensory innovativeness has a direct effect on consumers' hedonic attitudes toward using an innovative product.	Not supported
H3	Technological innovativeness has a direct effect on both consumers' (a) utilitarian and (b) hedonic attitudes toward using an innovative product.	Supported (Both H3a and H3b)
H4	Fashion innovativeness has a direct effect on both consumers' (a) utilitarian and (b) hedonic attitudes toward using an innovative product.	Supported (Both H4a and H4b)
H5	Fashion orientation related to a) fashion leadership, b) fashion interest, c) the importance of being well-dressed, and d) an anti-fashion sentiment has a direct effect on consumers' utilitarian attitudes toward using an innovative product.	Supported (H5c) Not supported (H5a, H5b, and H5d)
H6	Fashion orientation related to a) fashion leadership, b) fashion interest, c) the importance of being well-dressed, and d) an anti-fashion sentiment has a direct effect on consumers' hedonic attitudes toward using an innovative product.	Not supported (H6a – H6d)
H7	Consumers' utilitarian attitudes toward using an innovative product have a direct effect on their purchase intentions.	Supported

Table 11

Summary of the Results of Hypotheses (continued)

H8	Consumers' hedonic attitudes toward using an innovative product has a direct effect on their purchase intentions.	Supported
H9	Subjective norms have a direct effect on purchase intentions.	Supported
H10	Consumers' attitudes have a weaker effect on purchase intentions as compared to subjective norms.	Supported

Chapter Summary

This chapter presents statistical findings related to hypotheses addressed in Chapter 2. In the next chapter, a discussion of conclusions related to these findings is addressed. Implications are provided. It is then concluded with limitations and future research directions.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The overall objective of this study was to explore the effects of an external variable, i.e., consumer characteristics (consumer innovativeness and fashion orientation), on consumers' adoption of an innovative product. Furthermore, this study assessed the effect of consumers' attitudes (utilitarian and hedonic) and the importance of others on consumers' behavioral intention to adopt an innovative product. All hypotheses have been tested and their results have been reported in the previous chapter. In this chapter, a discussion of the findings is provided. Then implications of this study are presented. Finally, the limitations pertaining to the study are identified, followed by brief suggestions for future research directions.

Discussion of Major Findings

The research extends previous studies by examining the impact of both global and domain-specific innovativeness on consumers' utilitarian and hedonic attitudes toward using an innovative product. An innovative product in this study possesses both technology and fashion attributes which have not been examined by other researchers. Many studies have been focused on products possessing either technological or fashion innovations, but this is the first study to our knowledge that focuses on a single product that possesses both technological and fashion innovations. Since the current study approached an

innovative product in a different manner, the results differed from those of previous research. Furthermore, the consumers in this study are specified as young consumers (Gen Y). Due to the unique characteristics of young consumers, these young consumers' attitudes and behavior may result in different outcomes from studies of general consumers.

Objective 1: Examining the effects of consumer innovativeness and fashion orientation on consumers' attitudes toward using an innovative product.

In examining the effect of consumer global innovativeness (cognitive and sensory) on consumers' utilitarian and hedonic attitudes, results revealed that neither cognitive nor sensory innovativeness has an impact on consumers' utilitarian and/or hedonic attitudes. Results of the current study are contradictory to previous works that found support for the effect of consumer global innovativeness (cognitive and sensory) on consumers' adoption of a product (Foxall, 1995; Kempf, 1999; Venkatraman & Price, 1990; Venkatraman, 1991). This may be because, in the current study, consumers' attitudes were treated as a bi-dimensional (utilitarian and hedonic) construct rather than a unidimensional construct, which has been the case in previous studies (Foxall, 1995; Kempf, 1999; Venkatraman & Price, 1990; Venkatraman, 1991). In addition, these previous studies have examined the impact of consumer global innovativeness on consumers' adoption of a product focusing on a product that possesses one product attribute (e.g., technology, etc.). The current study examined the impact of consumer global innovativeness on consumers' utilitarian and hedonic attitudes using a product (i.e., Prada cellphone) that possesses two unique attributes (technology and fashion). In addition, as Goldsmith and Hofacker (1991) and

Im et al. (2003) stated, the concept of consumer global innovativeness may be too broad to explain consumers' adoption of a product.

However, when examining the effect of domain-specific consumer innovativeness (technology and fashion) on consumers' utilitarian and hedonic attitudes, results revealed different findings. That is, both technology and fashion innovativeness have an impact on both consumers' utilitarian and hedonic attitudes. These results revealed support for previous studies that found that domain-specific innovativeness (i.e., technology and fashion) helped predict consumers' adoption of a product (Beaudoin, Lachance, & Robitaille, 2003; Goldsmith & Hofacker, 1991; Midgley & Dowling, 1993; Muzinich et al., 2003). This result provides further evidence for the domain-specificity of the innovativeness construct. In other words, consumers may not be equally interested in innovative products in all product categories. While those who possess technology innovativeness seem to like a product due to its functional value, those who possess fashion innovativeness are likely to favor a product with aesthetic value (e.g., design).

An exploration of the effect of fashion orientation on consumers' utilitarian attitudes toward using a product revealed that only the importance of being well-dressed dimension of fashion orientation has an effect on consumers' utilitarian attitudes. The other dimensions of fashion orientation (i.e., fashion leadership, fashion interest, and an anti-fashion sentiment) produced no significant impact. That is, these consumers indicated that possession of a Prada cell phone is a part of being well-dressed, and being well-dressed influences them to express favorable attitudes related to the functional value of

using the product. In other words, possession of Prada cell phone may lead one to believe that product usage is likely to be purposeful and solve a principal consumption problem.

We further explored the effect of fashion orientation on consumers' hedonic attitudes toward using a product. Results revealed that only an anti-fashion sentiment has a negative impact on consumers' hedonic attitudes, while other dimensions of fashion orientation (i.e., fashion leadership, fashion interest, and the importance of being well-dressed) generated no significant impact. That is, those with an anti-fashion sentiment are likely to express unfavorable hedonic attitudes toward using an innovative product. Those with an anti-fashion sentiment are likely to display negative feeling about fashion which consequently produces negative attitudes concerning the gratification of using it.

Objective 2: Examining the effect of consumers' attitudes toward using an innovative product on their behavioral intention to adopt that product

When examining the effect of consumers' utilitarian and hedonic attitudes on purchase intention, results revealed these two dimensions of consumers' attitudes positively influence their purchase intention. That is, those who believe that a product is likely to deliver functional benefits are likely to purchase a product. Likewise, those who believe that a product is likely to deliver emotive arousal in experiencing a product (e.g., fun) are also likely to purchase a product. These two important motives tend to drive consumers to participate in purchasing behavior. It can also be explained that these Gen Y consumers are likely to consider functional values when they purchase a product. At the same time, they are also searching for emotive arousal associated with using a product. For example, Gen Y consumers tend to spend a large portion of money on electronics, such as

computers and printers. They not only search for product quality and functional benefits, but also look for a product that is well-designed and convenient to use. In sum, these results lend support to previous studies that found that consumers' utilitarian and hedonic attitudes positively influence consumers' purchase intention (Armitage & Conner, 2001; Voss et al., 2003).

Objective 3: Examining the effect that the perceived importance of significant others has on consumers' behavioral intention to adopt an innovative product

When the effect of the perceived importance of significant others (i.e., subjective norm) on consumers' purchase intentions was examined, results also showed a significant relationship between subjective norm and purchase intention. That is, these young consumers are likely to consider the opinion of others who are important to them (e.g., peers, family) when they decide whether or not to buy a product. The results also lend support for previous findings, indicating that purchase intention is positively influenced by subjective norm (Ajzen, 1988; Ajzen & Fishbein, 1980; Chang, 1998; Shim et al., 2001).

We further examined whether consumers' utilitarian and hedonic attitudes toward using a product or subjective norm play a critical role in influencing consumers' purchase intention. Results revealed that among these young consumers, subjective norm tends to display a stronger impact on consumers' purchase intention than consumers' utilitarian and hedonic attitudes. It is concluded that peer influence appears to be a greater influence on consumers' adoption of an innovative product among Gen Y consumers than their own personal attitudes toward using a product. Such results also lend support for previous studies (Shimp & Kavas, 1984; Taylor & Todd, 1995).

Conclusions

To our knowledge, this study is among the first to examine the effect of consumers' utilitarian and hedonic attitudes on consumers' purchase intention in the context of an innovative product that possess both technology and fashion attributes. We found that these two dimensions of consumers' attitudes (utilitarian and hedonic) significantly influence consumers' adoption of a product. In addition, we also examined the impact of consumers' characteristics (consumer innovativeness and fashion orientation) on consumers' attitudes and found that domain-specific innovativeness related to the technology and fashion domain has a significant effect on consumers' utilitarian and hedonic attitudes, respectively. However, we did not find a significant relationship between consumer global innovativeness (cognitive and sensory) and consumers' attitudes. Related to the relationship between the dimensionality of fashion orientation and consumer's attitudes, we found that consumers' utilitarian attitudes are positively influenced by the importance of being well-dressed and consumers' hedonic attitudes were negatively influenced by an anti-fashion sentiment. Furthermore, among young consumers, the opinions of significant others play an important role in influencing their purchase intention.

Managerial and Theoretical Implications

Our findings offer several implications for marketing practitioners and consumer researchers. The investigation found that among Gen Y consumers, their intention to purchase an innovative product is likely to be positively driven by their utilitarian and hedonic attitudes, as well as subjective norms. Utilitarian consumption is fundamentally

related to the performance of a product and hedonic consumption is involved with the aesthetic response related to a product's image. Because consumers in this study indicated that both utilitarian and hedonic consumption needs motivate their behavior, marketing practitioner should emphasize both the utilitarian (e.g., function) and hedonic (e.g., fun, fantasy) benefits of using a product when designing an advertising campaign (Dhar & Wertenbroch, 2000; Schwartz & Bilsky, 1990). In addition, the importance of significant others should be incorporated into an advertising campaign as well. Displaying friends using a product might be a great message to send to these young consumer markets because this kind of message tends to influence them to engage in purchasing behavior (Chang et al., 1996; Shimp & Kavas, 1984).

In addition, consumers' characteristics related to the technological and fashion domains of innovativeness play a significant role in influencing consumers' utilitarian and hedonic attitudes. Marketers need to focus on these two domains (technology and fashion) of a product when targeting this young consumer market. In addition to domain-specific innovativeness, two dimensions of fashion orientation (i.e., the importance of being well-dressed and an anti-fashion sentiment) also influence consumers' attitudes toward using a product. Gen Y consumers may consider this innovation to be an important part of their being well-dressed which may help to enhance their self-image when they carry this type of innovation. Therefore, marketers may need to use this as a selling point of a product.

To succeed in marketing to Gen Y consumers, marketers need to focus on both utilitarian (functional) and hedonic (aesthetic) benefits of a product instead of focusing on

only one side of benefit. To meet these consumers' needs, marketers have started strategically aligning with one another by using each others' strengths/expertise in developing an innovation, which results in an innovation with greater value to consumers. Since each participating party in the strategic alliance possesses certain knowledge about their market segment, they can work well together to strengthen their merits. In the view of consumers, this combination of two companies' strengths not only provides greater outputs, but also nurtures consumers' trust toward the products. If two well-known companies produce one product with each company's technique, the quality of the product would be more trustworthy than others. As such, this in turn may help to create positive brand image and may lead to enhance brand loyal among consumers. The uniqueness of a product manufactured by two well-known companies helps to differentiate that product from its competitors, which may receive a great deal attention from these young consumers.

In terms of theoretical implications, the current study extends the theory of reasoned action (Ajzen, 1988; Ajzen & Fishbein, 1980) by incorporating external variables, i.e., consumers' characteristics (consumer innovativeness and fashion orientation), into a model. In addition, this study further examines consumers' attitudes by splitting this construct into two dimensions, i.e., utilitarian and hedonic. In addition, it is important to remember that consumers' attitudes and subjective norms provide an in-depth understanding in the context of consumer behavior. Our results add to existing literature related to consumers' adoption of an innovation explained by the theory of reasoned action.

Limitations and Future Research Directions

In this study, the generalizability of findings beyond a specific sample and a specific product may be limited, so it is important to note certain limitations of this study. First, the sample was limited to one geographical area (Greensboro, North Carolina). Due to Gen Y populations clustered in other geographical areas, Gen Y consumers' responses to an innovative product should be investigated in these regions. Future research may want to investigate the differences between American Gen Ys in an urban area versus ones in a suburban area. Since this model was tested with a sample of American Generation Ys, research that tested this model in other countries would provide valuable information to international marketers and consumer researchers. For example, it would be insightful to compare results obtained from a sample of Generation Ys in European countries, Asian countries, and the United States. Furthermore, these larger samples may allow for the testing of more complex hypotheses and greater generalizability of the results.

Second, in terms of demographic characteristics, future research may want to examine whether there are any similarities and differences between generational cohorts related to the adoption of an innovative product (e.g., comparing Gen X and Gen Y or Gen Y and Baby boomers). Today, not only young consumers are familiar with technology and fashion, but Baby boomers are also paying more attention to products that possess both technological and fashion elements. In addition, these Baby boomer consumers tend to have great spending power that they may want to invest in such products to reflect their changing lifestyles. Future research may want to examine these Baby boomer consumers related to adoption of innovative products.

Third, the distribution curve for gender of the participants tended to be skewed toward females. If male participants are more involved in the study, the results of the study may be more interesting as to one may want to compare the gender differences related to adoption of such innovative products.

Fourth, another limitation of this study was that only a picture of the product, which was a black and white print, was used. Although the product is pure black and was described in detail, including functions and features, it is different from the real product. Respondents may have different perspectives about this product if they had an opportunity to examine the real one by touching and testing the cell phone. Hence, by having this great opportunity, differences in consumers' attitudes and purchase intentions toward an innovative product could result.

Fifth, we speculated that the mean of the purchase intention construct was low ($M_{\text{Purchase Intention}} = 2.55$ out of 5.00), suggesting that these participants seem to lean toward the "disagree" on items used to capture purchase intention. This may be explained that price of the product stimuli used in the current study may be of concern for these participants. Future research may need to control the effect of pricing that may have caused the mean of purchase intention construct to be low.

Finally, this study relied on the theory of reasoned action as its basis and not the theory of planned behavior. Therefore, this research does not include perceived behavioral control as a predictor of intentions and, consequently, results of this study cannot be compared to studies using the theory of planned behavior.

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APPENDIX A.

SURVEY



Dear Consumers:

I am a master's student majoring in Consumer, Apparel, and Retail Studies at the University of North Carolina at Greensboro. I am conducting research to better understand consumers' attitudes and behavioral intentions when purchasing hi-tech fashion products. Your input is very important to my study.

You are invited to voluntarily participate in this study. Please take about 15 to 20 minutes to complete this survey. There is no right or wrong answer to the questions. Your answer will be kept confidential and anonymous. You are allowed to work at your own pace. You may stop filling out this survey at any time you feel uncomfortable. There is no risk and no benefit to you by participating in this study. By filling out this survey, you are agreeing to participate in this study.

Thank you in advance for your participation. If you have any questions, please feel free to ask the researchers. We would be glad to assist you. In addition, if you have any questions concerning your rights as a research subject, you may contact The University of North Carolina at Greensboro Institutional Review Board at (336) 256-1482.

Sincerely,

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In this survey, there are seven major sections (I, II, III, IV, V, VI, and VII). Section I presents questions related to your personality. Section II involves questions concerning your fashion orientation. Section III consists of questions related to importance of others. Section IV contains questions assessing your attitudes toward using the product. Section V consists of questions related to behavioral intention. Section VI consists of general questions about hi-tech fashion products. Lastly, section VII presents questions addressing your demographic profile.

Now Please Begin!

Section 1: Personality

Please indicate your agreement or disagreement with the following statements.

		Strongly disagree						Strongly agree
1.	I sometimes like to find out the meaning of words I don't know.	1	2	3	4	5	6	7
2.	I sometimes like to try to figure out the meaning of unusual statements.	1	2	3	4	5	6	7
3.	I sometimes like to think about different ways to explain the same thing.	1	2	3	4	5	6	7
4.	I sometimes like to figure out the shortest distance from one city to another.	1	2	3	4	5	6	7
5.	I sometimes like to analyze my own feelings and reactions.	1	2	3	4	5	6	7
6.	I sometimes like to discuss unusual ideas.	1	2	3	4	5	6	7
7.	I sometimes like to think about why the world is in the shape that it is in.	1	2	3	4	5	6	7
8.	I sometimes like to figure out how many bricks it would take to build a fireplace.	1	2	3	4	5	6	7
9.	I can imagine myself being on a raft in the middle of the River.	1	2	3	4	5	6	7
10.	I like having a vivid dream with different, strange colors and sounds	1	2	3	4	5	6	7

		Strongly disagree						Strongly agree	
		1	2	3	4	5	6	7	
11.	I sometimes imagine myself riding the rapids in a swift moving stream	1	2	3	4	5	6	7	
12.	I like having a strange new feeling as I awake in the morning.	1	2	3	4	5	6	7	
13.	I sometimes imagine myself steering a sled down a steep hill covered with trees.	1	2	3	4	5	6	7	
14.	I like to dream that I was lying on the beach with the waves running all over me.	1	2	3	4	5	6	7	
15.	I like wailing across a swinging bridge over a deep canyon.	1	2	3	4	5	6	7	
16.	I like having vivid and unusual daydream as I was riding along.	1	2	3	4	5	6	7	
17.	Generally, I am among the last in my circle of friends to buy a new communication devices (e.g., cell phone, iPOD).	1	2	3	4	5	6	7	
18.	If I heard that a new communication device (e.g., cell phone, iPOD) was available through a local store, I would be interested enough to buy it.	1	2	3	4	5	6	7	
19.	Compared to my friends, I do little shopping for new communication devices (e.g., cell phone, iPOD).	1	2	3	4	5	6	7	
20.	I would consider buying new communication devices (e.g., cell phone, iPOD) even if I hadn't heard of it yet.	1	2	3	4	5	6	7	
21.	Generally, I am the last in my circle of friends to know the names of the latest new communication devices (e.g., cell phone, iPOD) and trends.	1	2	3	4	5	6	7	
22.	I know more about new communication devices (e.g., cell phone, iPOD) than other people do.	1	2	3	4	5	6	7	

	Strongly disagree					Strongly agree	
23. I am generally open to accepting new ideas.	1	2	3	4	5	6	7
24. I am willing to try new things.	1	2	3	4	5	6	7
25. I feel that I am an innovative person.	1	2	3	4	5	6	7
26. In general, I am among the last in my circle of friends to purchase a new fashion products (e.g., clothing).	1	2	3	4	5	6	7
27. If I heard that a fashionable product (e.g., clothing) was available through a local store, I would be interested in buying it.	1	2	3	4	5	6	7
28. Compared to my friends, I do little shopping for new fashionable products (e.g., clothing).	1	2	3	4	5	6	7
29. I know more about new fashionable goods (e.g., clothing) than other people do.	1	2	3	4	5	6	7
30. Generally, I am the last in my circle of friends to know the names of the latest new fashionable goods (e.g., clothing) & trends.	1	2	3	4	5	6	7

Section 2: Fashion Orientation

Please indicate your agreement or disagreement with the following statements.

	Strongly disagree					Strongly agree	
1. It is important for me to be a fashion leader.	1	2	3	4	5	6	7
2. I am aware of fashion trends and want to be one of the first to try them.	1	2	3	4	5	6	7
3. I am confident in my ability to recognize fashion trends.	1	2	3	4	5	6	7

4.	Clothes are one of the most important ways I have of expressing my individuality.	1	2	3	4	5	6	7
5.	I am the first to try new fashion; therefore, many people regard me as being a fashion leader.	1	2	3	4	5	6	7
6.	Because of my active life style, I need a wide variety of clothes.	1	2	3	4	5	6	7
7.	I always buy at least one outfit of the latest fashion.	1	2	3	4	5	6	7
8.	I never read fashion magazines or pay attention to fashion trends.	1	2	3	4	5	6	7
9.	I spend a lot of money on clothes and accessories.	1	2	3	4	5	6	7
10.	I spend a lot of time on fashion-related activities.	1	2	3	4	5	6	7
11.	It's important to be well-dressed.	1	2	3	4	5	6	7
12.	If you want to get ahead, you have to dress the part.	1	2	3	4	5	6	7
13.	What you think of yourself is reflected by what you wear.	1	2	3	4	5	6	7
14.	Wearing good clothes is part of leading the good life.	1	2	3	4	5	6	7
15.	I resent being told what to wear by so-called fashion experts.	1	2	3	4	5	6	7
16.	Fashion in clothing is just a way to get more money from the consumer.	1	2	3	4	5	6	7
17.	I buy clothes I like, regardless of current fashion.	1	2	3	4	5	6	7

The next page contains an advertisement.

Please view the ad and answer the following questions

(Section 3 – Section6)

The Prada phone's touchscreen (KE 850)



Product Description:

South Korean cell phone maker, **LG** has linked with Italian fashion powerhouse, **Prada** to come out with the “**LG Prada**” mobile phone. This mobile phone is completely touch screen (featuring graphical icons such as call, weather etc.). When not in use, the glowing icons disappear to reveal the pure black face that highlights Prada logo (see picture).

The **LG Prada** mobile phone can be placed on top of a tri-band GSM/GPRS/EDGE radio. It uses an 800mAh battery and, on the back, has a two megapixel camera with LED flash. It has a MicroSD memory card slot for storage expansion, and Bluetooth 2.0 and USB 2.0 for device connectivity. It has full media playback features. The mobile phone also has a sleek and mysterious look (see pictures).

<http://www.lge.com/about/press_release/detail/PRO%7CNEWS%5EPRE%7CMENU_20328_PRE%7CMENU.jhtml>

Section 3: Importance of Others

Please indicate your agreement or disagreement with the following statements.

		Strongly disagree						Strongly agree
1.	Most of the people (e.g., friends, family) who are important to me would encourage me to buy this Prada cellphone.	1	2	3	4	5	6	7
2.	If I were to buy this Prada cellphone, most of the people (e.g., friends and family) who are important to me would disapprove.	1	2	3	4	5	6	7

Section 4: Overall attitude toward using Prada Cellphone

Please rate the scales below, by checking (X) in the empty space, according to how would you feel about using Prada cellphone.

Bad	_____ : _____ : _____ : _____ : _____ : _____	Good
Unfavorable	_____ : _____ : _____ : _____ : _____ : _____	Favorable
Unpleasant	_____ : _____ : _____ : _____ : _____ : _____	Pleasant
Not fun	_____ : _____ : _____ : _____ : _____ : _____	Fun
Dull	_____ : _____ : _____ : _____ : _____ : _____	Exciting
Not delightful	_____ : _____ : _____ : _____ : _____ : _____	Delightful
Unenjoyable	_____ : _____ : _____ : _____ : _____ : _____	Enjoyable
Not thrilling	_____ : _____ : _____ : _____ : _____ : _____	Thrilling
Ineffective	_____ : _____ : _____ : _____ : _____ : _____	Effective
Not functional	_____ : _____ : _____ : _____ : _____ : _____	Functional
Unhelpful	_____ : _____ : _____ : _____ : _____ : _____	Helpful
Impractical	_____ : _____ : _____ : _____ : _____ : _____	Practical
Unnecessary	_____ : _____ : _____ : _____ : _____ : _____	Necessary
Useless	_____ : _____ : _____ : _____ : _____ : _____	Useful

Section 5: Behavioral Intention

Please indicate your agreement or disagreement with the following statements.

	Strongly disagree						Strongly agree
1.	1	2	3	4	5	6	7
I think I would actively seek out this Prada cellphone the next time I need a product of this nature?							
2.	1	2	3	4	5	6	7
I think I would buy this Prada cellphone the next time I need a product of this nature?							
3.	1	2	3	4	5	6	7
If Prada cellphone were to be available in my area, I would be likely to purchase this product?							
4.	1	2	3	4	5	6	7
I think I would try this product the next time I need a product of this nature?							
5.	1	2	3	4	5	6	7
My intention to purchase this product is strong.							

Section 6: General questions

Please indicate your agreement or disagreement with the following statements.

	Strongly disagree						Strongly agree
1.	1	2	3	4	5	6	7
This product is unique.							
2.	1	2	3	4	5	6	7
This product is new.							
3.	1	2	3	4	5	6	7
This product is innovative.							
4.	1	2	3	4	5	6	7
This product is fashionable.							
5.	1	2	3	4	5	6	7
Learning to use this product would be easy for me.							

APPENDIX B.
CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: An Empirical Examination of Consumers; Innovation Adoption: The Role of Innovativeness, Fashion Orientation, and Utilitarian and Hedonic Consumers' Attitudes

Project Director: Kittichai (Tu) Watchravesringkan, Ph.D.

Student researcher: Yun-Hee Kim, a master's student

Participant's Name: _____

DESCRIPTION AND EXPLANATION OF PROCEDURES:

The objective of this project is to examine the impact of consumer characteristics (i.e., innovativeness and fashion orientation) on young consumers' attitudes and purchase intention to purchase hi-tech fashion products. You are being invited to voluntarily participate in this study. You are eligible to participate because you are young consumers.

If you agree to participate, your participation will involve filling out the survey related to consumers' innovativeness, fashion orientation, attitudes and behavioral intentions toward hi-tech fashion products. It will take approximately 15 to 20 minutes to complete the survey. You may choose not to answer some or all of the questions. You are allowed to work at your own pace. You may stop filling out this survey at any time you feel uncomfortable. Only the principal investigator and student researcher will have access to information provided. In order to maintain your confidentiality, neither your name nor address will be asked. Your answers will be kept confidential and anonymous.

Confidentiality will be maintained at all times, and questionnaire will be assigned an id number so that all participants remain anonymous. There is no link between identities to participants and the numbers will be made. The research data will be kept for 3 years in a locked filing cabinet in a locked private office, after which all documents will be shredded and computer files will be deleted. Any questions you have will be answered and you may withdraw from the study at any time.

RISKS AND DISCOMFORTS:

There are no risks or discomforts associated with this research.

POTENTIAL BENEFITS:

This research benefits society by improving our understanding of young consumers related to their adoption of hi-tech fashion products. Results obtained from this study will help practitioners to understand the necessary areas of focus when developing marketing programs.

CONSENT:

By signing this consent form, you agree that you understand the procedures and any risks and benefits involved in this research. You are free to refuse to participate or to withdraw your consent to participate in this research at any time without penalty or prejudice; your participation is entirely voluntary. Your privacy will be protected because you will not be identified by name as a participant in this project. The University of North Carolina at Greensboro Institutional Review Board, which insures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at (336) 256-1482. Questions regarding the research itself will be answered by [Kittichai \(Tu\) Watchravesringkan](mailto:kittichai@uncg.edu) or Yun-Hee Kim by calling 336-256-2474 or sending an email at k_watchr@uncg.edu or y_kim5@uncg.edu. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project. By signing this form, you are at least 18 years old and are agreeing to participate in the project described to you by [Yun-Hee Kim](#).

Participant's Signature*

Date

APPENDIX C.
PERMISSION LETTER

 You forwarded this message on 12/10/2008 12:43 PM.
Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Kim, Yun-Hee

From: 유성철 [ysc53@lge.com] **Sent:** Wed 12/10/2008 2:56 AM
To: Kim, Yun-Hee
Cc: 조민수; 황영호
Subject: RE: Permission for using a picture of Prada Phone
Attachments:  [Permission Letter\(signature\).tif\(895KB\)](#)

Dear Yun-Hee Kim

I'm Seong Chul Yu in LG Electronics.Inc

After examining your dissertation, We determine to give you a permission to use a picture of Prada Mobile Phone.

I attached sealed permission letter for you.

I'll get in touch with you with more information. If you have anything to say, feel free to contact me.

Best Regards,

Charlie

=====

Yu Seong Chul (Charlie)
Intellectual Property Strategy Gr. LG Electronics Inc.
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20 Yeouido-dong, Yeongdeungpo-gu, Seoul, Korea (150-721)
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<https://tmail.utk.edu/exchange/ykim31/Inbox/RE:%20Permission%20for%20using%20a...> 12/10/2008