HERE TODAY, GONE TOMORROW: THE ANTECEDENTS AND CONSEQUENCES OF IN-STORE HOARDING AT FAST FASHION STORES

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ABSTRACT

HERE TODAY, GONE TOMORROW:
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This study raised questions about the role of in-store hoarding and investigated the antecedents and consequences of hoarding at fast fashion stores. As the market becomes dynamic and volatile, more retailers are moving toward fast fashion by constantly delivering new products throughout the season. This fast fashion strategy is a marketing approach to respond to the latest fashion trends by frequently updating products with a short renewal cycle and turning the inventory at a rapid rate. As a result, a product life span is dramatically reduced, thereby increasing fashion perishability. Moreover, in order to make constant room for new products and minimize markdowns, fast fashion retailers deliberately limit product availability, creating a sense of scarcity from the consumer perspective.

This study proposed perishability and scarcity as implicit time-limited cues that influence consumers to take immediate action while in the store. In-store hoarding was conceptualized as a dominant behavior in response to the implicit time-limited cues. Prospect Theory was applied as a major theoretical framework.

Based on the empirical investigation of actual shoppers and purchasers in fast fashion stores, this study supported that perishability and scarcity are central to

understanding in-store hoarding behavior. Anticipated gains of buying and anticipated losses of not buying were found to be mediators in the effect of perishability and scarcity on in-store hoarding. The study supported that consumers are more sensitive to anticipated losses of not buying than anticipated gains of buying, thus selecting an option that minimizes the risks—hoarding. Furthermore, purchase acceleration and shopping hedonism were significant consequences of in-store hoarding. Overall, the proposed model ensured the theoretical soundness and coherence of the conceptual model.

This study made a significant contribution to the consumer and retailing literature by introducing, defining, and operationalizing new constructs and measurements including the scales for perishability, anticipated loss of not buying, and in-store hoarding. This study also provided useful implications for practitioners in developing and implementing marketing and merchandising management strategies.

To My Mother

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CHAPTER I

INTRODUCTION

"*Here today, gone tomorrow.*" This is a signal that fast fashion retailers implicitly send to prompt their customers to take immediate action. To quickly respond to a fickle and fast-changing world of fashion, retailers such as Zara, H&M, Mango, and Top Shop defy conventional wisdom (The Economist, June 18, 2005) and have built their competitiveness by adopting a new strategic concept known as fast fashion. They follow a mass-boutique approach by introducing high fashion at relatively low prices. Latest fashion is delivered almost weekly, and productions runs are limited and thus, the product availability is deliberately restrained (Moore and Fernie, 2003; Dutta, 2002). Such strategic intention results in increased fashion perishability and the creation of a scarcity mentality for shoppers, acting as implicit time-limited cues. Consequently, fast fashion retailers have dramatically changed a conventional business model as well as consumer shopping and purchase behavior. However, there has been no theoretical approach to explain how fast fashion strategy influences consumer behavior and how they respond to such implicit time-limited cues.

Justification of This Study

Despite its growing acknowledgement and strategic implications of fast fashion, there has been no clear definition and theoretical approach to support its competitiveness from a consumer decision-making perspective. Along with the changing business

environment, a study to explain consumers' psychological and behavioral responses to the unique retail offerings of fast fashion retailers is also necessary. Therefore, the major characteristics of fast fashion and the consequent effects on consumer shopping and purchase behavior should be identified and investigated.

Fast fashion retailers' strategic intention on scarcity calls for study. Traditionally, a retail store's out-of-stock situation or product unavailability has been perceived as a 'loss' due to negative outcomes such as store switching, postponement or cancellation of purchase (Corsten and Gruen, 2003; Schary and Christopher 1979; Mason and Wilkinson 1976). Previous studies suggested that sure availability of products would provide higher profits and better values to consumers. As a result, many firms try to minimize the likelihood of out of stock by stocking enough products in the back or quickly replenishing the inventory. By contrast, challenging the traditional view, fast fashion retailers do not consider out of stock as a loss. Rather, they strategically intend to do so to create a sense of scarcity (Ghemawat and Nueno, 2003). It was not clear how consumers would behave under the situation where the product quantity is limed and there is an uncertainty of product availability in the next store visit. Although there have been many studies on the positive effect of scarcity on product desirability, there has been no empirical study to explore the theoretical links among perceived scarcity, worries about product availability, and subsequent in-store hoarding behavior. Likewise, fashion perishability accelerated by a short renewal cycle will also limit consumers' freedom to delay purchase decisions, engendering the same effects as perceived scarcity. This requires academic attention.

Further more, as the fear of scarcity or unavailability of a product motivates hoarding (Meagher, and Riskind, 2001; Frost and Gross, 1993, McKinnon, Smith, and

Hunt, 1985; Ong, 1999; Verhallen and Robben, 1994; Lynn, 1993), in-store hoarding often encounters in fast fashion stores. In-store hoarding is expected to play a major role as a new type of retail entertainment by simultaneously creating shopping competition and excitement for consumers. However, the concept of in-store hoarding has received minimum attention in consumer and retail literature. Is in-store hoarding likely to be motivated by the same reasons as the general hoarding? Thus, a study to find the major factors that trigger consumers to hoard products immediately or impulsively and the resulting outcomes should be conducted to provide new theoretical and strategic insights for retailers and practitioners working at dramatically changing retail landscape.

Research Objectives

Understanding the diverse aspects of consumer psychology will be the most important marketing information available to help a company advance one-step further than competitors. The main purpose of this study is to investigate the antecedents and consequences of in-store hoarding at fast fashion stores. Consistent with the justifications of this study, the research objectives are addressed as the following.

First, in order to accomplish these goals, the definition of fast fashion strategy will be clarified by identifying the key characteristics of this strategy. Second, as an attempt to find relevant drivers of in-store hoarding, this study will apply the consumers' psychology of regular permanent hoarding to the context of in-store hoarding. A definition of in-store hoarding will be provided. It will identify fashion perishability and scarcity as implict time-limited cues. Next, it will examine how consumers frame these cues in the dimensions of consumers' anticipated gains of buying and losses of not

buying. In turn, how these dimensions prompt in-store hoarding will be investigated. Lastly, based on the consumer literature, the consequences of in-store hoarding will be examined by linking shopping hedonism and purchase acceleration.

The remainder of the dissertation is organized as follows. The first part of Chapter II introduces the background of a new strategic concept, fast fashion, and the relevant hoarding literature is reviewed to identify antecedents and consequences of in-store hoarding. Based on the literature review, the conceptual framework is presented and the hypotheses are developed. Commodity theory and prospect theory are next reviewed to explain consumers' in-store hoarding behavior as responses to the uncertainty about product availability resulting from perceived scarcity and perishability. In the following section, the consequences of in-store hoarding are discussed. In Chapter III, research design, measurement scales, data collection methods are presented. The analysis of results and the discussion of the findings are provided in Chapter IV. Lastly, Chapter V covers the conclusion and limitations of this study and directions for future research.

CHAPTER II

LITERATURE REVIEW

In this chapter, the literature relevant to the present study is reviewed. First, this study discusses the characteristics of a fast fashion strategy and its growing importance in the retailing and fashion apparel industry. Fast fashion is next redefined. In the following section, the relevant literature about hoarding behavior is reviewed and its antecedents are proposed based on a review of the social psychological literature. Lastly, the consumer purchase behavior and shopping hedonism are reviewed as consequences of in-store hoarding. For the theoretical explanations among the hypothesized relationships, commodity theory, prospect theory, uniqueness theory, and the cognitive capacity view of mood effects are discussed.

FAST FASHION STRATEGY

The speed to market is clearly a critical component for gaining a competitive advantage for products that have a short life cycle such as clothing. With the increasing level of competition and market dynamics, the fashion apparel industry has shifted to "the arena of timing" (Richardson, 1996, p.400) and accordingly, the shortened production cycle has seemingly become one of the competitive alternatives that fashion apparel firms can select to respond quickly to changing target markets.

Traditionally, the product development cycle was typically split into Spring/Summer and Fall/Winter (Moore and Fernie, 2003; Brannon, 2005). By contrast,

beyond this traditional basis, fast fashion retailers continuously develop innovations and introduce new merchandise weekly or bi-weekly, considering fashion as food that spoils quickly (Dutta, 2002). Accordingly, along with the speedy delivery of products, it has been referred as, "fast fashion" as in "fast food."

Although the name of fast fashion has been frequently used, there has been no clear definition of this strategy. As a result, fast fashion was explained by providing company examples, rather than based on the given definition. Fast fashion was first defined by Moore and Fernie (2003) as "various strategies to respond commercially to the latest fashion trends" (p.31). They emphasized the delivery of the latest fashion items as an essential component in order to retain the sustainability of fast fashion retailers. In addition, although they explained the goal to respond to the latest fashion trends could be achieved by various strategies, their definition is too broad and failed to emphasize the importance of a shortened new product introduction cycle as a key component of fast fashion strategy.

In a more clear definition, Guercini (2001) used a term called "*Quick Fashion Formulas*" and defined it as "a product/service characterized by its potential to supply retailers with a range renewal service that is produced at short time gaps" (p.69). As acknowledged in the definition, more fashion retailers derive their competitive advantage from turning their inventory at a very rapid rate in order to maintain consumer interests. Despite its emphasis on the growing importance of shortened renewal cycle and rapid inventory turnover, this definition does not clearly encompass its goal to deliver the latest fashion items.

A large assortment of knockoffs and relatively low price are also often identified in the description of fast fashion (Dutta, 2002; Craig, Jones, and Nieto, 2004; Brannon,

2005). However, this study argues that these factors are supplementary to respond to market dynamics or to increase availability of high fashion to young trend conscious consumers, but they are not indispensable factors to meet qualifications of fast fashion.

As such, there has been no consensus on the definition of fast fashion. The previous definitions did not clearly describe the foremost characteristics of fast fashion strategy. Therefore, synthesizing the definitions of Guercini (2001) and Moore and Fernie (2003), fast fashion strategy is redefined as the following.

> *Fast fashion strategy (FFS) is a marketing approach to respond to the latest fashion trends by frequently updating products with a short renewal cycle and turning the inventory at a rapid rate.*

The constant and frequent delivery of latest fashion items and rapid inventory turnover require retailers to plan on limited supply of products. Therefore, quick response to dynamic market changes in pursuit of the latest fashion trends are closely interlinked and interdependent with a shortened renewal cycle and deliberate limited supply. The following section discusses these two characteristics as a prerequisite to respond to the latest fashion trends.

Short Renewal Cycle

The nature of high volatility and uncertainty of the market has made forecasting accurate demands inherently impossible, requiring new capabilities or resources to quickly respond to the external market changes (Dutta, 2002; Christopher and Towill, 2002; Richardson, 1996). These retailers demonstrated their competitiveness through the

fit with the external environment (i.e., market dynamism) and the strategy, evidenced by their exemplary financial performance.

Fast fashion retailers dramatically reduce the product life cycle to maintain inventory freshness and frequently introduce new offerings to satisfy consumers' ever-changing preferences. They are top leading retailers in the fashion apparel industry and excel in supply chain management to keep up with an increasing dynamic marketplace (The Economist, June 18, 2005; Dutta, 2002). The ability to acquire the latest consumer information and the capacity to quickly respond to market changes (Caro, 2005) allowed fast fashion retailers to replace the inventory weekly with new designs that better click new market trends (Economist, June 15, 2005).

As a result, inventory freshness became a norm to maintain consumer interests and promote frequent store visits (Ghemawat and Nueno, 2003). In turn, a short product life span and a rapid inventory turnover accelerated fashion perishability. The increased perishability may be interpreted in two different ways. As mentioned above, the rapid product turnover and short renewal cycle would encourage frequent store visits with excitement for new product expectations. At the same time, consumers' awareness of fashion perishability would also increase the level of uncertainty about product availability because products are changing very quickly and thus today's product may not be tomorrow's product.

Limited Supply

Retailers conduct assortment planning by trading off between assortment, variety, and product availability (Levy and Weitz, 2003). "All fashion end in excess" (Brannon, 2005, p.65). As such, fast fashion retailers are trying to capitalize on exclusivity by

limiting product availability. In a consistent line, defying the conventional wisdom, some researchers suggested different views on the value of out of stock or limited availability of products in a competitive setting. Balachander and Farquhar (1994) contended that the out-of-stock situation can be used strategically by '*stocking less.*' In other words, companies can gain more by stocking less when consumers are prone to search elsewhere upon encountering unavailability. According to them, sure product availability rather promotes price competition between firms, resulting in less or negative margin for them. Their study demonstrated that consumers who encountered out of stock of their favorite items would be willing to visit another store to find the missing item and buy it even if the product is not on sale or the price is higher. Thus, limited supply enables firms to avoid price-cutting and obtain higher margins than with assured availability. They contended that the limited product availability could benefit a firm if the strategic effect of lower price competition outweighs the direct effect of lost sales.

In a similar vein, Krishnan, Koelemeijer and Rao (2002) argued that although consistent assortment will enhance value on the part of consumers, not all retailers make such a commitment. Depending on retail format, consumers have different expectations for the level of consistency in assortment. For instance, although consumers can find the lowest price in hard discounters or warehouse clubs, they have lower expectations for a consistent assortment for such retailers than for grocery stores and department stores where the assortment is expected to be consistent from one period to another. They found that retailers adopting a consistent assortment are not profitable since it encourages them to engage in price-oriented competition, supporting findings by Balachander and Farquhar (1994). Likewise, consumers are less likely to expect sure availability of products for fast moving fashion stores and fast fashion retailers attract them by

competing with non-price factors such as quick delivery of high fashion and exclusivity.

The benefits of limited supply are also predicted in the commodity theory. According to the theory, limited product offerings encourage immediate purchases by consumers. Along with the rapid product turnover, sparsely stocked shelves reinforce consumers' perception that their favorite items will be gone in a moment. Moreover, being aware of higher likelihood of being out of stock, consumers are often tempted to purchase non-sale products by willingly paying full price. In fact, the artificial limited supply strategy, which creates a sense of scarcity, enables fast fashion retailers to increase sell-through rates, that is, the proportion of a season's merchandise selling at initial set price (Senanayake and Little, 2001). This shows another source of a competitive advantage of FFS.

The following section discusses its major effect on in-store hoarding and consequent purchase behavior. A more detailed explanation about short renewal cycle and limited supply will be provided in the development of a conceptual framework and hypotheses.

IN-STORE HOARDING

Hoarding can be viewed as a type of inventory accumulation. It can be profit seeking or loss avoiding. However, it often reflects emotional or impulsive buying in that hoarders tend to associate a high level of perceived risk with being deprived of the product, and rush to acquire unusual amounts of the product (McKinnon, Smith, and Hunt, 1985). Hoarding often reflects impulsiveness or compulsiveness (Frost and

Steketee, 1998). It is often observed for necessity products such as food or natural resources such as oil and water. Such psychology of hoarding behavior can be extended and applied to fast fashion marketing.

Despite its interesting and critical implication, there has been minimum attention given to the process of in-store hoarding and the variables affecting its enactment. In-store hoarding refers to temporal possession of products during shopping in response to impulsiveness generated by a certain situational factors (e.g., scarcity, uncertainty, or competition among shoppers) or appealing product factors.

In-store hoarding is distinguished from regular hoarding or permanent acquisition of products. Therefore, this study defines in-store hoarding as the following.

> *In-store hoarding is a behavior that involves rushing to acquire products in one's possession (in hands or in a shopping basket) during shopping in a store, in response to various impulsive stimuli such as situational or promotional factors, or product factors.*

Since consumers do not usually have a specific product in mind, in-store hoarding involves impulsiveness and thus most of apparel purchases are made impulsively *in store*. Retailers can substantially influence consumers' purchase decision by controlling store variables or situational factors. Impulse buying has been a focal point for marketing activity and generated substantial research interest (Rook, 1987; Beatty and Ferrell, 1998). Rook (1987) defined it as when "a consumer experiences a sudden, often powerful and persistent urge to buy something immediately (p. 191)." In this regard, theoretical understanding of in-store hoarding will provide important implications.

Similarly, previous literature found that hoarding is mostly driven by scarcity or time-limited product or promotion availability (Frost and Gross, 1993, McKinnon, Smith, and Hunt, 1985; Ong, 1999; Verhallen and Robben, 1994; Lynn, 1993). If a product is always available when needed, there is little motivation for ownership (Frost and Gross, 1993). Accordingly, impulsive hoarding is often observed in factory outlets or discount stores where scarcity increases due to the relatively intense competition level among shoppers. More frequently, consumers become more impulsive in hoarding when there are limited time offers or anticipated product availability in the next store visit is very low (Verhallen and Robben, 1994). The issue of scarcity becomes more relevant for psychological and marketing applications.

In fact, retailers often use a time-limited promotion strategy by using semantic cues such as "limited release," "only while supplies last," "hurry, limited time only," "limit of one per consumer" and "don't delay" to intentionally convey to the consumer that the promotion is offered only in a very limited time period (Jung and Kellaris, 2004; Aggarwal and Vaidyanathan, 2003; Spears, 2001; Lynn, 1993). Putting expiration dates on deals and notifying customers of the number of products left are also examples of time-limited promotions (Spears, 2001). As such, scarcity may result from diverse reasons including deliberate limits on the supply, or limited number of suppliers, costs of acquiring, keeping, or providing a commodity, restrictions limiting the possession of a certain commodity, or delays in providing a commodity (Brock, 1968).

Such time-limited promotions prove effective in that it substantially affects consumer purchase behavior. For instance, in the study of purchase intention of bonus packs, Ong (1999) discovered that when consumers assumed there was a limited supply of bonus packs, the purchase intention was greater than when they did not. In a related

study, Park and Kang (2000) found that in addition to the store environment and low price, the situation of limiting product availability encouraged impulse buying. In addition, Aggarwal and Vaidyanathan (2003) found that the time-limited nature of promotions led to a strong purchase intention and a negative effect on intent to search further for deals.

However, although there have been many studies on the effect of time-limited promotions on purchase behavior, there has been no known study that examines how consumers respond to *implicit* time-limited cues. Fast fashion retailers do not use explicit signs to promote sales but rather implicitly send a signal to their customers to take immediate action. Moreover, Aggarwal and Vaidyanathan (2003) also questioned, "If there is any other way of communicating to the customer the time-limited nature of a promotion and if yes, how this influences the likelihood of triggering a purchase decision." To fill this gap, this study will contribute by expanding the scope of the hoarding literature by finding implicit time-limited cues that give the urge to hoard and accelerate a purchase.

In this regard, this study proposes that fashion perishability and scarcity send a message about limited product availability. Further, such time-limited cues are implicit since they are not indicated clearly in a sign and perceived subjectively by consumers. Most important, such cues play vital roles in increasing consumers' worries about product unavailability, ultimately creating a store atmosphere built on the customer's perception that they must, "buy now, it won't be here tomorrow." Thus, these cues prompt consumers to hoard and buy products immediately and impulsively. In a similar context, Kwon (2001) proposed that the level of expected future deals could alter purchase behavior, either accelerating purchase or postponing purchase. As such, it is expected that

uncertainty about future product availability or anticipated regrets from delaying a chance to purchase will influence in-store hoarding and further purchase decision.

Understanding in-store hoarding in fast fashion stores provides critical marketing implications that can be applied in other stores or industries. This study is more meaningful in that prior studies have focused on explicit time-limited promotions that are indicated in a sign with semantic cues and on the effect of price on consumer hoarding or purchasing behavior. Additionally, little research attention has been devoted to what makes in-store shopping more fun and enjoyable (Beatty and Ferrell, 1998). In-store hoarding will create a lot of fun and excitement for shoppers, as does window browsing. Although it does not always result in an actual purchase, it will be highly correlated with the decision to buy and will precede the actual purchase. Therefore, it is very important to examine in-store hoarding behavior and to distinguish it from actual buying behavior.

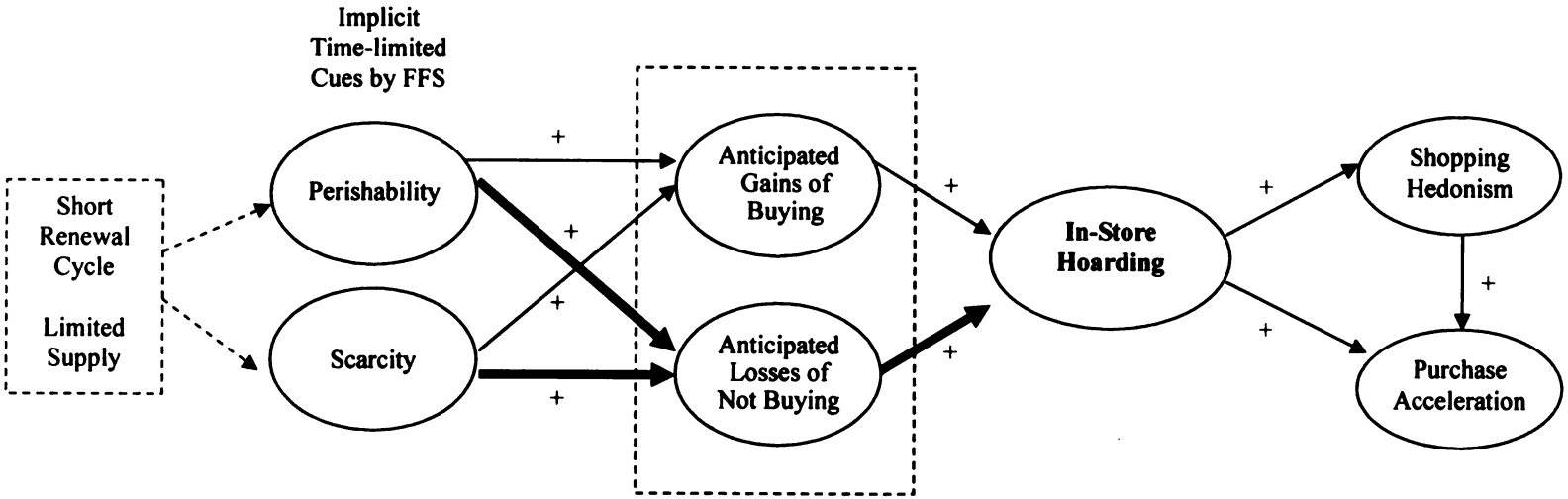
Therefore, this study will investigate hoarding behavior in fast fashion stores by applying the hoarding related literature. This study will explore how consumers will respond to a situation in which consumers find their favorite products but notice that there are few products available or anticipate the product will be gone or replaced with new products very quickly due to a shortened renewal cycle. Furthermore, a question about how they will feel when they actually hoard the last item or one from the limited supply will be investigated by linking shopping hedonism. The theoretical framework will be presented in the following section. Its antecedents and consequences of in-store hoarding behavior will be discussed in detail in the next section.

CONCEPTUAL FRAMEWORK

A theoretical framework for this study was developed. Fashion perishability and scarcity are identified as implicit time-limited cues resulting from a short renewal cycle and limited product offerings. These are conceptualized as exogenous variables that frame anticipated gains and losses resulting from the buying decisions. Further, such gain and loss dimensions are conceptualized as drivers of in-store hoarding. For personal traits, consumer innovativeness is modeled as a moderator intervening in the effect of perishability and scarcity on anticipated gains and losses and further on in-store hoarding. Theoretical discussion is based on Commodity Theory and Uniqueness Theory. For a major theoretical foundation, Prospect Theory is applied to predict stronger effects of perishability and scarcity on anticipated losses and a stronger effect of anticipated losses on in-store hoarding than those of anticipated gains.

Lastly, shopping hedonism and purchase acceleration are proposed as the consequences of in-store hoarding. The purchase acceleration is modeled as the final endogenous variable. The conceptual framework is provided in Figure 1. All linkages are hypothesized to be positive.

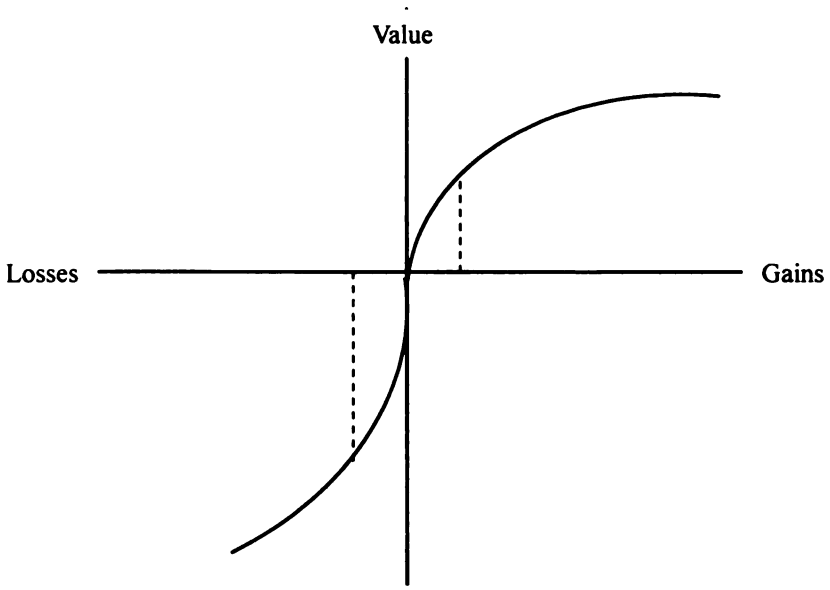
[Figure 1] Conceptual Framework of the Study:
The Antecedents and Consequences of In-Store Hoarding at Fast Fashion Stores



* Thicker paths represent stronger effects.

Prospect Theory

Prospect theory, developed by Kahneman and Tversky (1979), provides a theoretical basis for understanding the effect of perishability and scarcity on consumers' anticipated gains and losses and finally on in-store hoarding behavior. The theory explains consumers' decision making under risks and has been applied to explain consumer decision making for insurance and gambling. It proposes that value is assigned in the form of a gain and a loss rather than to absolute final assets, reframing the available options in order to simplify subsequent evaluation and choice (Kahneman and Tversky, 1979). For example, people perceive stimuli such as brightness, loudness, or temperature in relation to the past or present context of experience, rather than evaluating absolute magnitudes of such stimuli. In this case, the subjective experience defines an adaptation level or reference point (Helson, 1964; Kahneman and Tversky, 1979). Or, the same level of wealth may be perceived differently depending on a person's current financial status (Kahneman and Tversky, 1979).



[Figure 2] Prospect Theory: Value Fuction

The value function is normally concave for gains, commonly convex for losses and is generally steeper for losses than for gains (Kahneman and Tversky, 1979). Namely, losses are perceived more sensitively than gains, causing loss aversion (Kahneman and Tversky, 1979; Tversky and Kahneman, 1992). For example, in the case of gambling, the perceived loss of losing $100 is roughly twice as much as the perceived gain of winning $100 (Thaler, Tversky, Kahneman, and Schwartz, 1997). In addition, a price increase is justified as more unfair than a cancellation of a former price reduction and a cut in wages is perceived as more unfair than a cancellation of a wage raise (Lieberman, Idson, and Higgins, 2005). As a result, because loss averters experience losses more intensely than gains of similar objective magnitude, they tend to select a choice that reduces perceived risks.

Therefore, based on Prospect Theory, fashion perishability and scarcity are stimuli and consumers assign values which are captured in the anticipated gains of buying and the anticipated losses of not buying. Such stimuli (perishability and scarcity) are expected to be perceived differently depending on consumer-related factors such as prior store knowledge or experience or fashion innovativeness, etc. that act as reference points. In turn, the anticipated gains and losses are conceptualized as determinants of in-store hoarding. Lastly, applying the risk aversion principle, it is proposed that in-store hoarding is more strongly affected by the anticipated losses from not buying than by the ancitipated gains of buying. This study also assumes that consumers' reflections of such anticipated gains and losses occur spontaneously while they are browsing in store.

The next section discusses fashion perishability, scarcity, and the effect of these variables on anticipated gains of buying and losses of not buying.

Antecedents of In-Store Hoarding

Fashion Perishability

In the past, fashion apparel companies positioned themselves by focusing on low price or high quality. However, with more sophisticated consumer wants and growing interests in fashion, the agility needed to guarantee constant delivery of up-to-date merchandise becomes increasingly critical for business success. In response, more firms have shifted their focus to providing the latest fashion or high fashion on a frequent basis as a differentiation in today's time-based retail environment. As a result, the life span of high fashion items has been dramatically reduced, increasing fashion perishability.

In general, perishability refers to an item that has a fixed useful life or looks less desirable after a certain time (Gupta, Sundaraghavan, and Ahmed, 2003; Voss and Seiders, 2003). For example, a Halloween costume or a Christmas product is useful only before October 31 or December 25 and becomes less valuable or non-usable after the season (Gupta, Sundaraghavan, and Ahmed, 2003). Services only have value when they are produced and consumed, so they are always perishable. For example, airplane or theatre seats or hotel rooms are valuable only for a limited time and their value ends at a certain point (Geoffrey, 2000). Namely, they cannot be stored or sold later because they are offered at particular moments in time. Therefore, such services are also perishable.

Much like food and services, fashion is perishable. In particular, the latest fashion delivered by fast fashion retailers is highly perishable in that outdated fashion items cannot be sold later because they look less desirable to their target market. Moreover, perishability is directly associated with shelf life (Voss and Seiders, 2003). High fashion items have a high level of perishability in that they do not stay long on shelves. Perishability increases when the company deliberately shortens a renewal cycle

by frequently introducing new products and quickly removing unsold or less popular items (Al-Zubaidi and Tyler, 2004). As a result, products in a fast fashion store have a short product life and the value of current products deteriorate quickly when existing products are replaced with new, more recent products.

Thus, fashion perishability is mainly facilitated by two factors: consumer demand for newness and marketing strategy. Namely, consumers' ever-changing preferences and increased demand for new styles, along with the greater variety in fashion, has rapidly reduced the product life cycle of fashion apparel (Al-Zubaidi and Tyler, 2004). In addition, fashion perishability is accelerated by marketing strategies such as continuous introduction of innovations or a short product renewal cycle.

Effect of Fashion Perishability on Anticipated Gains of Buying

While perishability becomes an essential nature of fashion in today's time based market, little attention has been given to the effect of perishability on product valuation. The strategic importance of perishability for profitability and store image has been supported in many studies (e.g., Turcsik, 2003; Berner, 1999; Kerin, Jain, and Howard, 1992). For instance, carrying perishable items drives store traffic and increases purchase frequency and store loyalty (Tsiros and Heilman, 2005; Krider and Weinberg, 2000; Corstjens and Corstjens, 1999). Accordingly, more sophisticated food retailers provide full-service delis, fresh bakeries, in-store butchers, salad bars and elaborate ranges of produce to draw more customers into the store and to differentiate them from competitors (Tsiros and Heilman, 2005; Corstjens and Corstjens, 1999). Hence, perishability attracts more consumers and motivates them to visit the store more frequently.

Moreover, today's consumers are more trend-driven and demand new things (Al-Zubaidi and Tyler, 2004; Brannon, 2005). It is expected that perceived perishability would positively affect consumers' anticipated gains of buying by making them feel special or good about the product or themselves wearing the latest fashion. Therefore, it is hypothesized as follows:

Hypothesis 1: *The greater the level of perishability, the greater the level of anticipated gains of buying.*

Effect of Fashion Perishability on Anticipated Loss of Not Buying

Perishability is closely related to obsolescence of a product. Spoilage in food is equivalent to obsolescence in fashion. It occurs when a product becomes out of use or out of date (Cooper, 2004). Since high fashion is the most time sensitive compared to other apparel items, it has the shortest life span. As a result, the value of merchandise quickly deteriorates as time passes by in the mind of consumers (Gupta, Sundaraghavan, and Ahmed, 2003; Voss and Seiders, 2003).

The psychology of obsolescence has been applied in marketing. Companies deliberately plan on obsolescence in order to encourage continuous purchase of new items (Bulow, 1986). The concept of planned obsolescence was popularized by Packard (1960) and is referred to as the deliberate reduction of product life spans. He distinguished obsolescence of function, quality, and desirability. First, obsolescence of function was described as a situation in which an existing product becomes outdated

when a new product is introduced. In addition, obsolescence of quality arises when a product breaks down or wears out quickly due to deliberate intent. Lastly, obsolescence of desirability occurs when a product that still maintains quality or function becomes less attractive or desirable in consumers' minds because of changes in design or other attributes. The latter is also called psychological obsolescence (Packard, 1960). It is subjective and arises when consumers are no longer attracted to the existing products or satisfied by them (Cooper, 2004).

In the case of fashion, adoption of new fashion is accelerated by psychological obsolescence (Voss and Seiders, 2003). It is facilitated by product innovations, incremental changes in features (i.e., design, or styling), shortened product life cycles, changes in lifestyle or social status, and peer group pressures (Cooper 2004). Accordingly, the frequent introduction of new merchandise through a short renewal cycle promotes psychological obsolescence, significantly reducing the value of existing possessions in the minds of the consumers. In turn, it will motivate consumers to revisit the stores more frequently with expectations for new products.

Likewise, on the part of consumers, new styles may look more desirable, while existing or outdated fashions may appear less attractive or less valuable. "Every generation laughs at the old fashions but follows religiously the new" (Daniels, 1951, p.51). Generally, people want to comply with a new trend by continuously updating their wardrobe to avoid portraying a negative image to other people. For example, in the study of consumers' attitude toward an appliance's life span, Cooper (2004) found that some consumers replaced the product to avoid giving others a negative impression, regardless of its functionality. Such psychological obsolescence may significantly promote purchase of a new item.

Simultaneously, fashion perishability is also expected to augment the worries about product unavailability due to quick changes of merchandise. Certain items are available only for a certain period of time due to the implementation of short renewal cycle and the policy to remove ruthlessly slow-selling items with an intention to make constant room for new merchandise. In addition, fashion conscious consumers' positive valuation of fashion perishability or psychological obsolescence about existing clothing will increase anticipated losses if they do not buy or lose an opportunity to own a trendy product. Therefore, in a formal term, it is hypothesized as follows:

Hypothesis 2: *The greater the level of perishability, the greater the level of anticipated losses of not buying.*

Scarcity

It has been proposed that price and scarcity are two dominant factors that affect the valuation of a fashion product (Szybillo, 1973). In general, higher price is interpreted by consumers to indicate the scarcity of the product or the product's relative unavailability (Szybillo, 1973). However, Daniels (1951) and Barber and Lobel (1952) argued that the mass-production (i.e., selling a large number of the same or similar products in a store) of a medium to high price dress may decrease the perceived value of the garment. According to them, having only a limited number of a low priced product may enhance the attractiveness of the product. Their argument implies that actual scarcity, regardless of price levels, is more critical in affecting the product valuation and even a

low priced product can be perceived unique or valuable when the availability of the product is limited.

Marketers can make their products or services more desirable by manipulating the number of products offered in a retail store. Producing limited editions of products, restricting maximum order size for products, having exclusive distribution outlets for products, and prestige pricing of products are good examples that are commonly used in marketing practice to limit product availability and to increase desirability of the product (Brock, 1968; Lynn, 1991) and purchase intent (Jung and Kellaris, 2004).

This scarcity principle is strategically applied by fast fashion retailers. Given the nature of perishability in fashion, fast fashion retailers deliberately offer limited product offerings to minimize a portion of unsold products and to make constant room for new merchandise. In particular, Zara utilizes the scarcity effect very well and thus consumers may often observe that products are sparsely stocked in the store (Duta, 2003). Due to the scarcity or limited availability of products in fast fashion stores, products are not easy to get. Shoppers may have to go through competition among shoppers or hurry to get it before it is gone. Comodities that are difficult to get are typically more appreciated than those that are easy to acquire (Lynn, 1992). Therefore, scarcity is expected to affect shopping behavior by augmenting the desirability of products.

Effect of Scarcity on Anticipated Gains of Buying

From a theoretical standpoint, the valuation of scarcity has been supported by commodity theory. It has been applied in many contexts and showed a general applicability to the valuation of consumer products (Szybillo, 1973). Commodity Theory

proposes that perceived scarcity has a positive effect on the desirability of an object, which is known as scarcity effects (Brock, 1968). Namely, it is predicted that people may desire scarce commodities more strongly than comparable available products. Commodity means anything including messages, experiences, or objects that meet the following three criteria. It must be useful, transferable from one person to another, and have potential to be possessed. A major premise of the commodity theory is that the valuation of a commodity will increase to the extent that it is perceived as being unavailable (Brock, 1968; Szybillo, 1973; Verhallen and Robben, 1994). Unavailability means scarcity or limits on availability. Value refers to a "commodity's potency for affecting attitude and behavior" (Brock, 1968, p.246).

To date, a fair amount of research has shown that perceived scarcity has a positive effect on the attractiveness of a variety of consumer products (Inman, Peter, and Raghubir, 1997; Simonson, 1992; Ditto and Jemmott, 1989). For instance, Inman, Peter and Raghubir (1997) found that consumers evaluate more favorably when the temporal validity of a deal is limited than when it is not limited, especially if the deal offers a significant saving. In addition, Verhallen and Robben (1994) provided consistent evidence by examining the effects of four conditions of product availability on consumers' preferences for recipe books. These conditions include unlimited availability, limited availability due to popularity, limited availability due to limited supply and accidental unavailablity. Interestingly, their study discovered that books of limited availability due to market circumstances such as popularity and limited supply were perceived as more costly and more nearly unique than books that were accidentally unavailable or abundantly available. The positive effect of scarcity on product attractiveness was most pronounced for books that were of limited availability due to

both popularity and limited supply (Robben, 1994).

Furthermore, scarcity may convey the implication of novelty, uniqueness, or distinctiveness (Fromkin, 1970; Ditto and Jemmott, 1989; Fromkin and Snyder, 1980; Szybillo, 1973; Framkin, 1972, 1973). According to Uniqueness Theory (Fromkin, 1973), a desire to possess scarce commodities stems from a need for uniqueness. In the quantitative review of the commodity theory literature, Lynn (1991) also suggested the link between possession of a scarce product and anticipated gains of buying. Namely, the author justified the positive effect of scarcity on desirability of a product in terms that the possession of scarce products conveys positive feelings of personal distinctiveness or uniqueness, only if they are desirable and have the potential of being possessed.

Thus, the possession of a scarce product may serve to define the self as different, unique, or distinctive from others. Consumers will anticipate gains such as uniqueness or self-enhancement from acquiring or using a product that is perceived as rare or scarce. Accordingly, it is hypothesized as follows:

Hypothesis 3: *The greater the level of perceived scarcity, the greater the level of anticipated gains of buying.*

The Effect of Scarcity on Anticipated Loss of Not Buying

Consumers cope with perceived scarcity by hoarding. The psychology of the effect of scarcity on hoarding has been studied by many scholars (e.g., Lynn, 1992; Lynn, 1991; Brock, 1968). McKinnon, Smith, and Hunt (1985) suggested that a desire to

minimize a perceived risk of loss is a dominant motivation of such behavior. The valuation of choice alternative is often influenced by the alternatives that are given up (Loomes and Sugden, 1982). Therefore, when deciding when to make a purchase, consumers often imagine outcomes that would have occurred had they purchased later (Cooke, Meyvis, and Schwartz, 2001). Outcomes considered may include regret or a perceived psychological loss resulting from an opportunity given up to acquire the item or a delayed purchase decision. Frost and Steketee (1998) found that both compulsive hoarding and compulsive buying result from a worry about the loss of opportunity. Frost, Meagher, and Riskind (2001) also provided a consistent finding that the effect of fear of losing an opportunity on hoarding was pronounced for compulsive hoarders. They argued that such people tend to perceive that each of their possessions present opportunities which would be lost if that possession were discarded. Thus, hoarders tend to make the safe decision to keep or acquire the product. They try to minimize regrets, worries, or perceived risks resulting from the loss of opportunity.

The time-limited promotion also poses a 'use-or-lose' threat to consumers (Aggawal and Vaidyanathan, 2003, p.393). Inman and McAlister (1994) discovered that as a coupon's expiration date approaches, the redemption rate increases. Such behavior occurs due to the increased anticipated loss of not taking advantage of the promotional deal when it is valid. Regret is induced by the anticipated loss of an opportunity to save money. They applied regret theory to explain the effect of an expiration date on coupon redemption behavior. Regret is defined as "the feeling induced by comparing a given outcome or state of events with the state of a forgone alternative" (Bell, 1982). The theory posits that consumers tend to avoid an alternative that could result in regret. Inman and McAlister (1994) also discussed the possible application of Prospect Theory as

alternative theoretical explanations for the effect of anticipated loss and coupon redemption behavior.

Thus, under a situation of limited availability, scarce opportunities will affect consumer perception and behavior more strongly than when they are always available (Cialdini, 1985). Namely, consumers will respond more sensitively to scarce products or opportunity by worrying about future product availability and considering not buying as a loss. Hence, it is hypothesized as the following.

Hypothesis 4: *The greater the level of scarcity, the greater the level of anticipated losses of not buying.*

The Effect of Anticipated Gains and Losses on In-Store Hoarding

As discussed previously, hoarding behavior more often takes place in fast fashion retailers than in other comparable fashion apparel stores. The scarcity by limited supply is likely to increase consumers' perceived concerns about future availability of their favorite items. Given that hoarding occurs not only for future consumption but also for fear of unavailability (Meagher, and Riskind, 2001; Frost and Gross, 1993, McKinnon, Smith, and Hunt, 1985; Ong, 1999; Verhallen and Robben, 1994; Lynn, 1993), consumers encountering a scarcity of a product are likely to be stimulated to hoard the product immediately before it is taken by other customers. By doing so, consumers try to reduce a perceived risk about unavailability of a desired product in the expected time period (Tan and Chua, 2004). In a similar context, Kwon (2001) discovered that as consumers had no

or less worry about the product availability in the future, they were less inclined to purchase a product. Namely, when consumers were sure about product availability, their purchase intention was weakened or postponed even though there was a perceived value from receiving a low price or a deal. By contrast, when consumers were highly worried about future product availability, they showed a strong and immediate purchase intention.

This study proposes that both anticipated gains of buying and losses of not buying will lead to in-store hoarding. The best senario that supports the logic of this study is as follows. The probability of raining influences one's decision on whether or not to bring an umbrella. According to the Prospect Theory (Kahneman and Tversky, 1979), depending on the chances of rain, value is assigned to gain and loss for each decision choice considered. Applying the risk aversion priciples, it is likely that as the chance of rain increases, people will anticipate gains of bringing an umbrella. At the same time, they will anticipate losses of not bringing an umbrella. However, the chance of rain is expected to influence the anticipated losses more strongly than the anticipated gains. Thus, the loss dimesion will be steeper than the gain dimension. This is due to the stronger sensivity to loss resulting from not bringing an umbrella than gains from bringing an umbrella. Consequently, to minimize the anticipated loss, people decide to bring an umbrella.

Therefore, it is proposed that perishability and scarcity will influence the anticipated loss of not buying more strongly than the anticipaged gains of buying. Also, based on the risk aversion principle, it is reasonable to expect that in-store hoarding is more strongly affected by the anticipated losses of not buying than by the anticipated gains of buying. Therefore, it is hypothesized as the following.

Hypothesis 5: *The effect of fashion perishability on anticipated losses of not buying will be stronger than on anticipated gains of buying.*

Hypothesis 6: *The effect of scarcity on anticipated losses of not buying will be stronger than on anticipated gains of buying.*

Hypothesis 7: *The greater the level of anticipated gains of buying, the greater the level of in-store hoarding.*

Hypothesis 8: *The greater the level of anticipated losses of not buying, the greater the level of in-store hoarding.*

Hypothesis 9: *The effect of anticipated losses of not buying on in-store hoarding will be stronger than that of anticipated gains of buying.*

Consequences of In-Store Hoarding

Based on previous literature, shopping hedonism and purchase acceleration are proposed as main consequences of in-store hoarding. To support the theoretical links, the cognitive capacity view of mood effect and the psychology of physical proximity are discussed.

Shopping Hedonism

With the growing acknowledgement of the competitive advantage of experiential values, more researchers have started to explore the hedonic aspects of shopping, describing shopping as fun (Babin, Darden, and Griffin, 1994; Griffin, Babin, and Modianos, 2000; Jin and Sternquist, 2004). Hedonic shopping value derives from the "appreciation of an experience for its own shake" (Holbrook, 1994, p.40). Namely, it is

acquired from an interaction with a store environment, product or services, or marketing activity, and is generated regardless of purchasing or using a product or service (Sweeney and Soutar, 2001). As a result, the hedonic value is more subjective with emotion-laden perceptions of shopping experience than extrinsic or utilitarian shopping values (Griffin, Babin, and Modianos, 2000). It results from pleasure, fun and playfulness through the shopping experience (Babin, Darden and Griffin, 1994).

Beyond the traditional mix of price and quality, more retailers are trying to deliver diverse experiential values as a way to differentiate from their competitors. Pine and Gilmore (1999) and Mathwick, Malhotra, and Rigdon (2001) redefine retailers as "a source of memories," or an "experience stager," highlighting the critical role of experiential value as the essential outcome of retailers' marketing activities. In the study of consumer shopping values for retail brands, Carpenter, Moore and Fairhurst (2005) found that there are significant differences in consumer perceptions of hedonic shopping value across several retail brands. Their study demonstrated the importance of unique in-store shopping experiences and delivery of hedonic aspects of shopping as an effective source of differentiation for retail brands.

Many empirical studies found that store-induced hedonic responses or positive moods have favorable effects on future patronage intention or attitudes toward the retailer (e.g., Babin and Darden, 1996; Yoo, Park, and MacInnis, 1998; Sherman and Smith, 1986). Accordingly, extensive research has been conducted to find what factors induce or increase shopping hedonism, and major attention has been paid to the effect of external factors such as entertaining retail environment on consumers' emotional responses and the consequent purchasing behavior. More recently, however, the topic has been extended to cover price-related variables such as value or deals (Jin and Sternquist, 2004; Jin,

Sternquist, and Koh, 2003) and price mavenism (Sternquist and Byun, 2004) as significant predictors of shopping hedonism. These studies found that financial saving or perceived value of low price or deals significantly enhance hedonic values. Namely, when consumers find a discounted product or a lower price than their expectation or market price, they experience excitement or pleasure. In addition to deals seeking, it was proposed that sharing price information with others and being price mavens are main drivers of enjoying shopping activities (Sternquist and Byun, 2004). However, despite the considerable amount of work in this topic, previous research has not focused on fully uncovering diverse factors eliciting hedonic shopping values. In this regard, as one of the first studies, this study proposes that in-store hoarding is a significant driver of shopping hedonism.

Previous literature shows a possible link between in-store hoarding and shopping hedonism. When consumers can grab a product of interest before it is sold out or not available any longer, they may feel as if they win the shopping game or simply interpret the possession of a scarce product as a potential gain (Tan and Chua, 2004), thereby experiencing greater hedonic shopping values. Gardner and Rook (1988) found that shoppers tend to feel excited simply by having something new in their possession. Moreover, it has been suggested that browsing may be more significant than the actual acquisition of products and can provide highly pleasurable shopping experiences (MacInnis and Price, 1987; Sherry, 1990; Beatty and Ferrell, 1998). Similarly, even if they decide not to buy the item, perhaps due to problems in fit or financial affordability, in-store hoarding *per se* is likely to increase hedonic values through enabling shoppers to imagine owning the scarce item (Desmeules, 2002) or the latest fashion item.

Thus, although it is not permanent acquisition of a product, temporally

possessing or hoarding something impulsively in their arms or in a shopping basket is likely to elicit or enhance hedonic shopping values. Moreover, such values are expected to be greater at fast fashion stores because consumers would feel accomplished, excited, and playful when they successfully hoarded hard-to-get items (considering perishability and scarcity). At the same time, since in-store hoarding is not actual purchasing, hoarding and trying on a number of items would not cost anything for consumers, but provide a lot of fun and excitement. It is assumed that in-store hoarding will make shopping activity more enjoyable and playful, inducing hedonic shopping values. Therefore, it is hypothesized as the following.

Hypothesis 10: *The greater the level of in-store hoarding, the greater the level of shopping hedonism.*

Purchase Acceleration

The main purpose of providing time-limited promotions is to stimulate direct sales by accelerating consumers' purchase decision (Aggarwal and Vaidyanathan, 2003). In today's promotion driven market, a retailers' ability to influence consumers' purchase decisions is very critical. More importantly, inducing purchase acceleration for its own brand or in its own store is a more significant part of modern marketing strategy (Neslin, Henderson, and Quelch, 1985), particularly for product categories that consumers often consider diverse brands at the same time.

Purchase acceleration has been measured in terms of buying larger quantities of

the products and buying at an earlier time (Aggarwal and Vaidyanathan, 2003). For example, consumers may end up buying more units when they are on promotion, or make the purchase earlier to benefit from a promotion. In addition, consumers are often forced to curtail further search in the face of a promotion that is about to close (Aggawal and Vaidyanathan, 2003).

Rather than relying on price-related promotions, fast fashion retailers expedite purchase decision-making by using implicit time-limited cues. Similar to the effect of a limited promotional offer on purchase acceleration, it is likely that consumers may end up buying more products than they do normally or they expected, or make an immediate purchase decision without delaying it mostly in response to the fast fashion retailers' time limited cues.

Accordingly, the study proposes that purchase acceleration arises from in-store hoarding and shopping hedonism. First, based on the cognitive capacity view of mood effect on information processing, the effect of shopping hedonism on purchase acceleration will be discussed. In the following section, the psychology of physical proximity will be discussed for a theoretical support between in-store hoarding and purchase acceleration.

Cognitive Capacity View of Mood Effects

The information processing model (Bettman 1979), which considers the consumer as a logical thinker who makes purchase decisions in a rational way, was one of the most popular decision making theories in the past. However, Holbrook and Hirschman (1982) questioned the traditional information processing perspective on the point that it neglected important experiential consumption phenomena such as hedonic

orientation or emotional and psychological responses in their shopping activity. In this regard, the cognitive capacity view contends that moods can affect information-processing (Mackie and Worth, 1989), which may highlight the strategic importance of retail experiential values in shopping.

According to the cognitive capacity view, people in a happy mood tend to use heuristic processing strategies, whereas people in a bad mood tend to elaborate information systematically (Clore, Schwarz and Conway, 1994; Mackie and Worth, 1989). This is because happy moods activate many positive thoughts in memory and these thoughts occupy cognitive capacity (Wegener and Petty, 1995). As a result, a happy mood limits processing capacity and individuals in such a good mood do not have cognitive resources to process information analytically.

The cognitive capacity view of mood effects on processing gives insights into consumer accelerated decision making in fast fashion stores. Similar to happy moods in the cognitive capacity view, hedonic shopping values are an emotion-laden perception of shopping experience (Griffin, Babin, and Modianos, 2000) and are often influenced by positive moods or emotions such as excitement, pleasure, or fun experienced during shopping. Thus, it is expected that hedonic values will influence consumers' information processing ability and intention for further product searching. Specifically, since hedonic shopping values activate positive thoughts about the products and/or the store, shoppers are likely to evaluate products more favorably. Furthermore, the happy mood and positive thoughts may motivate them to minimize their information processing efforts by skipping extensive information searching, such as product comparison across competitors which may result in the delay of purchase or store switching.

Such logic is also supported by fair amounts of research that have been

conducted to discover the effect of hedonic shopping values on purchase behavior. Consistent evidence showed that hedonic shoppers or consumers who are in a good mood tend to spend more time and money than originally planned (e.g., Donovan, Rossiter, Marcoolyn, and Nesdale, 1994; Donovan and Rossiter, 1982). Roehm and Roehm (2005) and Kahn and Isen (1993) found that in the presence of mild positive mood, variety seeking behavior increased. Sherman, Mathur, and Smith (1997) found that while cognitive factors influence store selection and planned purchase within a store, the store environment and the emotional state of consumers are more significant determinants of purchase behavior. They also found that emotions such as pleasure and arousal are associated with the amount of money spent, time spent and the number of products purchased in the store. Such elevated mood states lead shoppers to evaluate the store and the products more favorably and make immediate and spontaneous purchases (Heilman, Nakamoto, and Rao, 2002; Sherman and Smith, 1986). Thus, it is hypothesized as the following.

Hypothesis 11: *The greater the level of shopping hedonism, the greater the level of purchase acceleration.*

Physical Proximity and Purchase Acceleration

The positive effect of in-store hoarding on purchase acceleration is proposed based on the psychology of physical proximity. In-store hoarding is a manifestation of actual purchase behavior. As discussed previously, since in-store hoarding often involves

impulsive possession of favorite items, or acquisition of hard-to-get items, the temptation placed on consumers becomes irresistible, significantly accelerating purchases. Rook (1987) suggested that consumers could hardly resist their strong urge to purchase when they physically encounter the object, called the effect of physical proximity. In a study of impulse buying, Beatty and Ferrell (1998) also explained the logic behind the positive links between browsing to urge and urge to impulse buying from the idea of physical proximity. Therefore, consistent with the previous studies, it is hypothesized that in-store hoarding will prompt purchase acceleration.

Hypothesis 12: *The greater the level of in-store hoarding, the greater the level of purchase acceleration.*

Innovativeness as a Moderator

Consumer's attitude toward a product changes depending on where it stands in the product life cycle. In general, consumers develop favorable attitudes toward the product during the introduction, growth, and maturity stages and they change attitudes as it gets to later stages (Bither, Dolich, and Nell, 1971). Due to the changed attitude, consumers want to buy a new or competing product. However, such attitude change may be facilitated by personality traits. For example, innovative consumers may form a more positive attitude and a stronger interest in a new fashion in the introduction or growth stage, and start to change their attitude when it gets to the maturity stage or when products are prevalent. Thus, fashion innovators are among the first adopters of new

products when these styles are introduced in the marketplace (Brannon, 2005). They react very sensitively to the changes of fashion and thus those innovators comprise a crutial segment for innovation diffusion (Goldsmith, Moore, and Beaudoin, 1999).

Summers (1970) also found that fashion leaders are likely to have more positive attitudes towards new fashion and enjoy testing and experimenting with new fashions than non-opinion leaders. In a similar vein, Szybillo (1973) found that there is a difference in valuation of a scarce fashion product between opinion leaders and non-opinion leaders. Fashion opinion leaders rated the fashion under the scarce condition as the most desirable, followed by the fashion under the no scarcity information condition and under the abundant condition. Among non-opinion leaders, although they showed least valuation for abundant products, there was no difference in desirability between the fashion under the scarce condition and the fashion under the no scarcity information condition.

Although there are distinctions, a number of studies found that opinion leaders tend to be fashion innovators (e.g., Jacoby, 1971; Summers, 1970). Therefore, Szybillo's finding supports the assumption that innovators will respond more sensitively to a scarcity cue by perceiving it as a way of defining themselves as being different from their peers. This product life cycle and consumer attitude is also closely related to product availability. For instance, Swami and Khairnar (2003) found that the perceived scarcity significantly affected their decision of adoption of a new product. He proposed a model testing the effect of limited availability on the adoption of a new product and found that limited availability induced scarcity effect.

Consistently, innovators are likely to be more responsive to fashion perishability in the need of uniqueness or as a tool for self-expression. Accordingly, it is assumed that

their valuation of such products will significantly increase the anticipated gains of buying and thus, intensifying the anticipated losses of not buying immediately. Due to the high level of worries about products being unavailable or psychological obsolescence about existing products, innovators tend to show great willingness to buy new products even at a full price (Brannon, 2005). Moreover, once they like it they do not want to delay their purchase or wait until it is on sale. On the other hand, for non-innovators, that is, those who are fashion followers or late adopters, fashion perishability and scarcity will be less meaningful in their product valuation or selection and thus their worry or regret will be much weaker than that of innovators. Consequently, non-innovators tend to adopt products later when discounts are offered at the expense of fashion currency and product availability.

Therefore, it is expected that the previously hypothesized relationships concerning the antecedents of in-store hoarding will be stronger for innovative consumers. Such theoretical links can be supported by Uniqueness Theory. Uniqueness Theory (Fromkin, 1973) predicts that people are motivated to maintain a sense of specialness as they define themselves. It proposes that it is the motivational process of need for uniqueness that precedes and creates the evaluative differences between common and rare stimuli (Snyder and Fromkin, 1980). Fromkin and Williams (1972) also supported that valuation of scarce products relative to abundant products would be greater for people with a high need for distinictiveness than for people with a low need for distinctiveness. According to uniqueness theory, innovative consumers tend to feel strong needs for uniqueness. Such needs are satisfied by acquiring a new product earlier than others and purchasing scarce products rather than abundant ones.

Taken together, this study proposes that the positive effect of fashion pershability

and scarcity on anticipated gains of buying and losses of not buying will be significantly pronounced for innovators or those who try to use fashion as a way of asserting their individuality. For those consumers, high perishability and scarcity driven by the short renewal cycle and limited supply will give strong urges to hoard products in store.

Given this, the comparison of the model will contribute to understanding both groups. For example, it is important to investigate where non-innovators show the biggest difference from innovators and to determine the underlying reasons. Such findings will provide considerable marketing implications for retailers as to how they implement a strategy to appeal to innovators because they are the earliest adopter and signficantly influence the diffusion of new trends to the next adjacent group (Brannon, 2005). In addition, findings will also provide implications concering how to attract non-innovators and how to actively engage them in shopping, effectly influencing their purchase decision. In the formal form, these are hypothesized as the following.

Hypothesis 13: *The positive effect of perishability on anticipated gains of buying will be stronger for innovators than non-innovators.*

Hypothesis 14: *The positive effect of scarcity on anticipated gains of buying will be stronger for innovators than non-innovators.*

Hypothesis 15: *The positive effect of perishability on anticipated losses of not buying will be stronger for innovators than non-innovators.*

Hypothesis 16: *The positive effect of scarcity on anticipated losses of not buying will be stronger for innovators than non-innovators.*

Hypothesis 17: *The positive effect of anticipated gains of buying on in-store hoarding will be stronger for innovators than non-innovators.*

Hypothesis 18: *The positive effect of anticipated losses of not buying on in-store hoarding will be stronger for innovators than non-innovators.*

CHAPTER III

METHOD

The present section discusses measurement, scale development method and data collection procedures. Next, data analysis methods and procedures to test the proposed model are presented.

Measurement

Measurements for fashion innovativeness and shopping hedonism were adopted from existing scales. For the remaining six constructs (scarcity, perishability, anticipated gain and loss, in-store hoarding and purchase acceleration), since there are no scales available from previous literature, the scales were modified or newly developed in this study based on the literature review and one-to-one interviews. The scale development procedures are discussed in detail in the subsequent sections.

Fashion Innovativeness

Innovativeness is domain specific. Namely, those who are willing to adopt the latest merchandise in one product category may be laggard in another (Goldsmith and Hofacker, 1991; Goldsmith and Goldsmith, 1996; Goldsmith, D'Hauteville, and Flynn, 1998). In this regard, Goldsmith and Hofacker (1991) developed the domain specific innovativeness scale (DSI) that contains six Likert-type items. The DSI scale showed psychometric soundness in numerous studies and illustrated its usefulness for both theoretical consumer research and applied marketing (Goldsmith, d'Hauteville, and Flynn,

1998). The scale demonstrated unidimensionality and high internal consistency with reported alpha coefficients ranging from .73 to .87. The DSI also demonstrated validity of scale and the measurements were not influenced by social desirability and acquiescence response biases (Goldsmith and Hofacker, 1991). In this study, to be consistent with other scales, the 6-point scale was modified to a 7-point Likert scale. Higher scores indicate greater fashion innovativeness.

Shopping Hedonism

With the growing importance of experiential values in today's retail environment, researchers have started to emphasize the hedonic or pleasurable aspects of shopping as a key competitive weapon (Arnold and Reynold, 2003). For the measures of shopping hedonism, Babin, Darden, and Griffin (1994) developed a parsimonious, two-dimensional scale of perceived Personal Shopping Value (PSV) measuring utilitarian and hedonic values. The original PSV scale was composed of 15 items. Among these, 11 were measuring hedonic shopping values. The original PSV scale showed strong internal consistency with Cronbach's alpha coefficients ranging from .69 to .83. The scale was validated using diverse samples and measuring theoretical links with other constructs as well as convergent and discriminant validities. All confirmatory factor loadings exceeded .60 and were significant. The scale has been extensively used in marketing, psychology, and consumer behavior studies and provided further evidence in reliability and validity for US consumers across diverse products although there were some variations across countries (Griffin, Babin, Modianos, 2000; Jin, Sternquist, and Aeran Koh, 2003; Jin and Sternquist, 2004).

In this study, the 11 items of the hedonic shopping value scale were adopted.

However, the tense of the original scales was modified to evaluate hedonic aspect of shopping experienced "during" shopping at a store, instead of general attitude toward shopping. The original scale was measured by a nine-point Likert scale ranging from -4 as being strongly disagree to +4 as being strongly agree. This scale was modified to a 7-point Likert scale to maintain consistency with other measures and to reduce measurement errors that may be caused by scale differences. The higher the score, the stronger the hedonic shopping value.

Scale Development Procedures

One-to-One Interview—Stage One

One-to-one interviews were conducted for generating items and a deep understanding of a phenomenon from the consumers' perspective (Hudson and Ozanne, 1988). This method has been highly recommended as the first step in a research process and has proved to be useful for uncovering information that the researcher did not originally consider (Churchill, 1979). It is also helpful in developing measurements by allowing the wording of consumers' use to describe the construct of interest.

For this study, ten female undergraduate and graduate students who shopped at Zara or H&M stores in the United Sates within the last 6 months were included in this procedure. The customers for the two retailers are selected since they are the top leading fast fashion retailers in the world and positioned very closely against each other in terms of fashionability and price. Such positioning proximity will reduce response errors resulting from differences in brand image and store positioning. Figure 6 in the appendix

shows the positioning of H&M and Zara. Six of the participants shared their experience at H&M stores and four of them did for Zara. All participants reported that they have experiences in purchasing in these stores and the majority of the participants expressed strongly favorable attitudes toward the stores they shopped.

First, the purpose of the in-depth interview was briefly explained to each participant. Next, each respondent was asked to recall their most recent shopping trip in one of the fast fashion stores mentioned above and describe shopping experiences in detail, including their observations or perceptions about the products, store atmosphere, feelings or psychological responses and purchase decision making processing. If there was a concept not addressed by the participant, the interviewer asked a series of questions to provoke thought about the concept missed. For example, the interviewer asked what caused their urge to grab certain items and carry them around, what made a shopping experience enjoyable or playful, and how they made a purchase decision.

Mostly, people who shopped at Zara mentioned the scarcity of products when they described the store environment and atmosphere. Only half of the H&M shoppers agreed on a sense of scarcity, while half of them disagreed on this construct, showing some diversity on the degree of scarcity. Mostly, they reported that they had heard of the stores and the products from their friends, family, class or media before their first visit to the store. In-store hoarding behavior was identified from most of the interviews and they confirmed that they had stronger hoarding tendency than in other comparable apparel stores. At the last stage of the discussion, most of the participants agreed with the proposed model of in-store hoarding behavior in the fast fashion stores.

For the purpose of scale development for several constructs in this study, participants' responses were written down during the interviews. The feedback from the

one-to-one interviews was analyzed by three doctoral students majoring in retailing for representativeness of the scale domain. Each member sorted the participants' responses into categories based on similar context. Any disagreement among the three members was resolved by discussion. Next, the categorized items were incorporated with preliminary scale items identified through a review of relevant literature to develop the survey instrument for pre-tests.

Face Validity Tests—Stage Two

The initial items generated from the one-to-one interviews were incorporated with the measurements that were adapted from the previous studies or derived from the conceptual discussion in the literature. Two faculty members, six doctoral students and three master's students in retailing, consumer behavior, and marketing evaluated the quality of the measurements in terms of clarity, reliability, and validity of the scales. Based on their feedback, the items were modified and the process was repeated several times until they were deemed clear, reliable and valid. Finally, the modified items were incorporated with the established instruments for the following tests.

Pre-Test—Stage Three

To empirically test the reliability and validity of the scales, a pre-test was administrated to purify the measures and provide an initial examination of the scale's psychometric properties. Assuming a 20% response rate, 500 surveys were distributed to H&M and Zara shoppers in New York in April 2006. The mall intercept and mail survey techniques were used for data collection (more detail explanations about these methods

are provided in the main test section). Only female shoppers were included to avoid the potential error variance caused by gender difference. Fifty one responses were returned, showing approximately 10% of response rate. Among these, forty seven responses were usable and submitted to a reliability test.

As recommended by Churchill (1979), items with low reliability were removed by investigating coefficient alpha. Items with coefficient alpha higher than .7 were retained. Some revisions were made to improve question clarity, comprehension and readability. Finally, the confirmed questionnaire was submitted for the main survey. The next section discusses the six constructs whose scales were developed or modified in this study.

Scarcity

There have been extensive studies to test scarcity effect. Nevertheless, most of them have been tested in experimental settings and it has not been empirically explored. Therefore, this study could be a first step to empirically examine the role of perceived scarcity in consumer shopping and purchase behavior. Since there were no scales available to measure scarcity, multiple items were developed.

Scarcity was measured in terms of overall perception about scarcity and product availability of their favorite items in a specific size. To measure overall perception about product scarcity, the description about scarcity provided to respondents in the experimental study of Jung and Kellaris (2004) was adapted to make continuous variables. In addition, findings from the one-to-one interviews as well as ideas from theory and prior literature were incorporated to build scales for scarcity. Thus, the scarcity measure was composed of the following six items. The higher the score, the greater the perceived

scarcity.

- *My favorite items were often one of the last items left on the rack.*
- *The products that I was interested in were almost out of stock.*
- *There were only limited number of products per size, style, and color.*
- *Products of interest were often scarce in my size.*
- *My favorite styles in this store were mostly available in my size.* ®
- *I could mostly get my first preference in my size* ®.

® represents a reversed scale.

Perishability

Fashion perishability represents a fashion item that has a fixed useful life span or looks less desirable after a certain period of time. It is accelerated by the implementation of a short renewal cycle or a continuous introduction of the latest fashion items. As a result, in the fast fashion stores, products are moving very quickly and the same style does not stay long on the rack. There exists no established scale to measure fashion perishability. Thus, based on the one-to-one interviews and conceptual discussion in previous literature, multi-item scales were developed in this study. The currency in fashion trend, quick movement of products, and frequent introduction of new merchandise were included as major domains of this construct. The measure for fashion perishability consisted of eight items in total. The higher the score, the greater the perceived perishability. It is shown as follows.

- *This store constantly delivers updated fashion items throughout the season.*
- *New styles are introduced on a frequent basis.*
- *This store rapidly turns over their merchandise.*
- *Products in this store do not stay on the rack long.*
- *This store introduces new fashion styles quickly.*
- *Products in this store are fresh in terms of fashion trend.*

- *Products in this store are moving fast.*
- *I can mostly find the same merchandise that I saw on my previous store visit.* ®

® represents a reversed scale.

Anticipated Gains of Buying

Anticipated gains of buying denote expected psychological benefits or hedonic states that may be achieved through acquiring or using the product. Based on previous literature and theoretical discussion, anticipated gains of buying were measured in terms of perceived uniqueness, distinctiveness and the self-image enhancement that a product generates. The scale consisted of the five items below. The higher the score, the greater the anticipated gains of buying.

When I found a product of interest in this store, I thought that acquiring or wearing this product would make me...

- *Look unique.*
- *Look fashionable.*
- *Enhance my self-image.*
- *Feel good about myself.*
- *Feel special.*

Anticipated Losses of Not Buying

Anticipated losses of not buying denote expected psychological discomfort or uneasiness that results from not acquiring the product immediately or missing an opportunity to purchase the favored product. Two items used by Abraham and Sheeran (2003) to measure anticipated regret from not exercising were adapted to reflect a worry or physiological loss about missing an opportunity to buy. Since there are no multiple-item scales available, more items that measure this construct were developed in this study based on the one-to-one interviews. Based on the literature review and the theoretical

discussion, anticipated loss of not buying was measured in terms of concerns about product availability in the next visit or anticipated psychological loss or regret due to losing opportunity to acquire their favorite item. The measurement included five items. The higher the score, the greater the anticipated losses of not buying.

When I found a product of interest in this store, I thought that...
▪ *If I do not buy it right now, I would regret it later.*
▪ *I was afraid that this item would be out-of-stock in my next visit.*
▪ *I thought that it would be a loss if I do not buy it today.*
▪ *I was concerned that this item might not be available if I came back later.*
▪ *If I do not get it immediately, I would lose an opportunity to purchase it because it will be gone tomorrow.*

In-Store Hoarding

In-store hoarding refers to a rushed behavior to acquire products into one's possession (in hands or in a shopping basket) during shopping in a store, in response to various impulsive stimuli—implicit time-limited cues in this study. In-store hoarding was distinguished from permanent hoarding and the concept was limited to the hoarding occurring in store.

Since there were no in-store hoarding scales available, the scales used for measuring the urge to buy, developed by Beatty and Ferrell (1998), were adapted to match the concept of in-store hoarding. In addition, from the conceptual discussion in the hoarding literature and the one-to-one interviews, additional items were included. In total, the scale consisted of seven items. The higher the score, the stronger the in-store hoarding.

When I found a product of interest in this store,
▪ *I spontaneously grabbed the product of interest.*
▪ *I had the urge to grab the product immediately.*

- *I was carrying around products while shopping.*
- *I snapped things up while shopping in this store.*
- *Once I picked up a product, I did not want to put it down although I was not sure if I would buy it or not.*
- *I hurried to grab the products of interest and kept them to myself.*
- *On this trip, I found a number of things I wanted to grab immediately even though they were not on my shopping list.*

Purchase Acceleration

Purchase acceleration denotes increased rate of purchase which is reflected in the quantity of products purchased and rapidity in decision making or hastened purchase decision (Aggarwal and Vaidyanathan, 2003; Krishna and Shoemaker, 1992; Neslin, Henderson, and Quelch, 1985). Among them, Aggarwal and Vaidyanathan (2003) used two items to measure purchase acceleration: buying larger quantities of the products and buying them at an earlier time. These items were modified to measure shoppers' subjective notion about the quantity of product purchased. With regard to the measure for buying at an earlier time, Aggarwal and Vaidyanathan (2003) calculated the interpurchase times. However, since it is not of interest in this study to mathematically compute the interpurchase times, the item was modified to reflect a notion of rapidity in purchase decision-making. This notion was supported by one-to-one interviews and the conceptual discussion in previous literature. Therefore, it was measured by the three items below. The higher the score, the stronger the purchase acceleration.

- *I purchased an item that I had not planned to purchase on this trip.*
- *I purchased more products than I would do normally on this shopping trip.*
- *I made a purchase decision immediately rather than postponing until the next visit to this store.*

Data Collection

Sample

The sample for this study was composed of actual female shoppers from H&M and Zara. These two stores were chosen because they are top leading fast fashion retailers. The actual shoppers were selected to provide more reliable and realistic marketing implications for both practitioners and academicians. Both purchasers and non-purchasers were included.

Data Collection Method

Survey method was selected to test the conceptual framework. New York was chosen as a survey site due to the similarity in location of both H&M and Zara. In this way, response biases due to the location difference or variation in sample characteristics was reduced. Given that most of the fast fashion stores are located in open shopping districts, not in a shopping mall, and the questionnaire consisted of many questions, the combination of mall intercept and mail survey methods was employed to collect the data for this study. First, the author of this study contacted the stores to receive permission to distribute the survey in front of their stores. Next, in addition to the researcher, five students were hired as research assistants to distribute questionnaires.

Following extensive training sessions to ensure consistency of administration and breadth of distribution of the questionnaire, each pair of data collectors was assigned to a different location. Each assistant approached female shoppers who had just exited the store to introduce themselves and briefly explain the purpose of the survey, while showing the cover letter and flyer that explained the purpose of the study, how to

participate in the current survey and how to receive incentives (see Appendices F and G). If the shopper agreed to participate, the research assistant handed them an envelope enclosed with a questionnaire and a business return envelope. Chewing gum was also given to increase interest in the survey and encourage participation. Additionally, in order to increase the validity of responses, participants were asked to mail out their answers within 48 hours. This was designed to acquire their fresh shopping memories. Two incentive options were provided for those who completed the survey: a gift card and a donation. Participants who selected the gift card option were entered into a drawing for several sizable gift certificates (i.e., six $20s, two $50s, and one $100). For those who selected the donation option, the researchers donated $1 per person to the Katrina Funds by American Red Cross.

In total, 2000 questionnaires –half to each retailer– were distributed in front of 10 different stores from May 19, 2006 to May 26, 2006. Following the recommendations of Bush and Hair (1985) to increase representativeness of the sample, balanced quota was imposed with respect to the time of day and which day of the week.

CHAPTER IV

RESULTS

This chapter reports the results from statistical analyses and discusses the findings. It starts with the demographic characteristics of the sample, followed by the reliability and validity of the measures. Next, the analyses of a path model and group comparison are reported. Finally, the findings are discussed in this chapter.

Demographic Characteristics of the Sample

A total of 249 surveys were returned out of 2000, yielding a 12.5% response rate. Of this, 234 responses were usable for this study. Of the sample, 76.6% were between 20 and 29 years old. About 82.1% of the sample had or was currently pursuing a university degree or higher educational background. The annual income (not family income) of 56.4 % of the sample was reported below $34,999. Caucasians accounted for the largest portion, 39.3% of the sample, followed by 30.8% Asians. Sample characteristics are provided in Table 1. There were no significant differences in the demographic characteristics (age, income, education and ethnicity) between the stores. The result is reported in Appendix B.

Sixty per cent of the responses came from H&M shoppers and 40% from Zara shoppers. When asked whether they had previous shopped in the store, 88.5% of the sample responded that they had, while only 11.5% reported that it was their first visit to the store (Table 2).

Table1. Demographic Characteristics of the Sample (N=234)

		N	Percent (%)
Age	Under 20	11	4.7%
	20-24	96	41.0%
	25-29	83	35.5%
	30-34	29	12.4%
	35-39	5	2.1%
	40 or over	9	3.8%
	Missing	1	0.4%
Education	High school or below	10	4.2%
	Some college	32	13.7%
	Bachelor's degree	123	52.6%
	Master's degree or higher	64	27.3%
	Missing	5	2.1%
Income	Under $20,000	80	34.2%
	$20,000 to $34,999	52	22.2%
	$35,000 to $49,999	40	17.1%
	$50,000 to $64,999	30	12.8%
	$65,000 to $79,999	12	5.1%
	$80,000 to $99,999	3	1.3%
	$100,000 more	9	3.8%
	Missing	8	3.4%
Ethnicity	African American	36	15.4%
	Caucasian	92	39.3%
	Asian	72	30.8%
	Spanish, Hispanic or Latino Origin	18	7.7%
	Other	14	6.0%
	Missing	3	0.9%

Table 2. Respondents' Shopping Information

		N	Percent (%)
Store Visited	Company A	140	59.8%
	Company B	94	40.2%
Shopping Experience	Shopped before	207	88.5%
	First visit to this store	27	11.5%

Confirmatory Factor Analysis

Following the recommendations by Anderson and Gerbing (1988), the two-step approach was used. First, Confirmatory Factor Analysis was employed to evaluate the reliability and validity of the measures, followed by the path analysis. Amos 4.1 with the maximum likelihood estimation was used. The quality of data was evaluated in terms of reliability, convergent and discriminant validities (Kline, 1998).

Reliability of each construct was assessed in terms of Cronbach's alpha. Following Nunnally (1978)'s recommendation, an item whose reliability was lower than .7 was removed from the analysis. In this step, two items were dropped. The excluded items were "My favorite items were often one of the last items left on the rack" and "I can mostly find the same merchandise that I saw on my previous store visit (reversed scale)." The remaining 42 items were submitted to the confirmatory factor analysis.

The purification of the scales was performed by excluding items with insignificant t-value and low loading coefficients (Anderson and Gerbing, 1988). Items with poor loading values (<.60) were eliminated one by one and the analysis was rerun.

In total, nine items were dropped in this step (see Table 4). Each construct had a least three items (Hair, Anderson, Tatham, and Black, 1998). Consequently, 33 items in total—3 items for anticipated gains of buying and purchase acceleration, 5 items for anticipated losses of not buying and shopping hedonism, and 6 items for perishability and in-store hoarding—were submitted to test the path model. The reliabilities of all seven constructs were between .82 and .92, showing satisfactory reliability (Nunnally 1978). In addition, unidimensionality was demonstrated for each construct, ensuring international consistency (Sethi and King, 1994).

Convergent validity was assessed by the significance of the lambda loadings (Anderson and Gerbing, 1988). The factor loading values for each individual indicator to its respective latent variable was highly significant ($p < .001$), and all loading coefficients were above .63. This provided the evidence that the measured items robustly represented the underlying constructs, showing strong convergent validity (Bollen 1989; Kline 1998).

Discriminant validity is the degree to which extracted factors measured by different sets of indicators falling within the same latent construct are distinguished from one another (Bollen 1989; Kline 1998). All items in seven constructs were loaded, without cross loading, in the underlying construct. Furthermore, the χ^2 difference test showed that the correlation between two constructs was significantly different from 1, verifying distriminant validity (Anderson, 1987). Therefore, the results revealed internal consistency, convergent validity, and discriminant validity of the scales.

Even though the chi-square test result was significant (χ^2= 850.232, df=462, $p<0.001$), incremental fit index (IFI=.92), Bentler-Bonett non-normed fit index (NNFI = .91), comparative fit index (CFI = .92), and root mean square error of approximation (RMSEA =.060) indicated good fits of the CFA models to the data. The results of CFA are

shown in Table 3. Selected and excluded items and Cronbach's alpha for each construct are reported in Table 4.

Table 3. Result of Confirmatory Factor Analysis

Parameters	Standardized Estimates	Standardized Error	T-value	P-value
V4 ← Scarcity	0.765	0.124	8.923	0.000
V5 ← Scarcity	0.693	0.109	9.539	0.000
V6 ← Scarcity	0.739	0.114	10.373	0.000
V7 ← Scarcity	0.696	0.065	14.220	0.000
V8 ← Scarcity	0.734	-	-	
V10 ← Perishability	0.695	-	-	
V11 ← Perishability	0.862	0.129	10.705	0.000
V12 ← Perishability	0.625	0.115	9.216	0.000
V13 ← Perishability	0.745	0.085	13.319	0.000
V14 ← Perishability	0.832	0.117	10.370	0.000
V15 ← Perishability	0.645	0.108	9.484	0.000
V19 ← Gain	0.885	0.070	15.326	0.000
V20 ← Gain	0.777	0.059	13.372	0.000
V21 ← Gain	0.845	-	-	
V22 ← Loss	0.735	-	-	
V23 ← Loss	0.887	0.090	13.625	0.000
V24 ← Loss	0.772	0.070	15.981	0.000
V25 ← Loss	0.901	0.094	13.843	0.000
V26 ← Loss	0.837	0.100	12.827	0.000
V28 ← Hoarding	0.691	-	-	
V29 ← Hoarding	0.704	0.099	9.497	0.000
V30 ← Hoarding	0.697	0.111	9.413	0.000
V31 ← Hoarding	0.696	0.121	9.235	0.000
V32 ← Hoarding	0.770	0.115	10.287	0.000
V33 ← Hoarding	0.791	0.122	10.549	0.000
V34 ← Hedonism	0.809	-	-	
V35 ← Hedonism	0.727	0.075	11.767	0.000
V36 ← Hedonism	0.767	0.083	12.555	0.000
V43 ← Hedonism	0.733	0.100	9.736	0.000
V44 ← Hedonism	0.820	0.075	13.613	0.000
V45 ← Purchase	0.811	0.124	8.632	0.000
V46 ← Purchase	0.702	0.110	7.328	0.000
V47 ← Purchase	0.828	-	-	

Table 3. (Cont'd)

Parameters	Standardized Estimates	Standardized Error	T-value	P-value
Perishability ↔ Scarcity	0.083	0.055	1.497	0.134
Loss ↔ Scarcity	0.467	0.105	4.442	0.000
Gain ↔ Scarcity	0.007	0.107	0.066	0.948
Hoard ↔ Scarcity	0.264	0.094	2.814	0.005
Hedonism ↔ Scarcity	0.087	0.092	0.950	0.342
Purchase ↔ Scarcity	0.025	0.135	0.187	0.852
Gain ↔ Perishability	0.241	0.069	3.485	0.000
Loss ↔ Perishability	0.369	0.071	5.226	0.000
Hoard ↔ Perishability	0.331	0.067	4.920	0.000
Hedonism ↔ Perishability	0.303	0.065	4.689	0.000
Purchase ↔Perishability	0.344	0.090	3.807	0.000
Gain ↔ Loss	0.642	0.124	5.169	0.000
Hoard ↔ Loss	0.709	0.120	5.909	0.000
Hedonism ↔ Loss	0.642	0.112	5.715	0.000
Purchase ↔ Loss	0.793	0.159	4.974	0.000
Hedonism ↔ Hoard	0.613	0.110	5.561	0.000
Purchase ↔ Hoard	0.858	0.162	5.291	0.000
Gain ↔ Hoard	0.671	0.125	5.374	0.000
Hedonism ↔ Purchase	0.766	0.155	4.954	0.000
Gain ↔ Purchase	0.701	0.171	4.098	0.000
Gain ↔ Hedonism	0.849	0.131	6.469	0.000
χ^2= 850.232, df=462, p<0.001, χ^2/df=1.84				
CFI=.92, NNFI=.91, IFI=.92, RMSEA=.06				

Table 4. Measurement Properties

Items	Std. Loading	Cronbach's alpha
Scarcity		
V4. The products that I was interested in were almost out of stock.	.77	
V5. There were only limited number of products per size, style, and color.	.70	
V6. Products of interest were often scarce in my size.	.74	.82
V7. My favorite styles in this store were mostly available in my size.	.70	
V8. I could mostly get my first preference in my size.	.74	
Excluded item:		
V3. My favorite items were often one of the last items left on the rack.		

Items	Std. Loading	Cronbach's alpha
Perishability		
V10. New styles are introduced on a frequent basis.	.70	.88
V11. This store rapidly turns over their merchandise.	.86	
V12. Products in this store do not stay on the rack long.	.63	
V13. This store introduces new fashion styles quickly.	.75	
V14. Products in this store are fresh in terms of fashion trend.	.83	
V15. Products in this store are moving fast.	.65	
Excluded items:		
V9. This store constantly delivers updated fashion items throughout the season.		
V16. I can mostly find the same merchandise that I saw on my previous store visit.		
Anticipated Gain of Buying		
V19. This product would enhance my self-image.	.78	.87
V20. This product would make me feel good about myself.	.89	
V21. This product would make me feel special.	.85	
Excluded Items:		
V17. This product would make me look unique.		
V18. This product would make me look fashionable.		
Anticipated Loss of Not Buying		
V22. If I do not buy it right now, I would regret it later.	.74	.92
V23. I was afraid that this item would be out-of-stock in my next visit.	.89	
V24. I thought that it would be a loss if I do not buy it today.	.77	
V25. I was concerned that this item might not be available if I came back later.	.90	
V26. If I do not get it immediately, I would lose an opportunity to purchase it because it will be gone tomorrow.	.84	
In-Store Hoarding		
V28. I had the urge to grab the product immediately.	.69	.88
V29. I was carrying around products while shopping.	.70	
V30. I snapped things up while shopping in this store.	.70	
V31. Once I picked up a product, I did not want to put it down although I was not sure if I would buy it or not.	.70	
V32. I hurried to grab the products of interest and kept them to myself.	.77	
V33. On this trip, I found a number of things I wanted to grab immediately even though they were not on my shopping list.	.79	

Items	Std. Loading	Cronbach's alpha
Excluded item:		
V27. I spontaneously grabbed the product of interest.		
Hedonic Shopping Value		
V34. Shopping at this store was truly a joy.	.81	.87
V35. I continued to shop, not because I had to, but because I wanted to.	.73	
V36. Shopping at this store truly felt like an escape.	.77	
V43. While shopping at this store, I felt a sense of adventure.	.73	
V44. Shopping at this store was a very nice time out.	.82	
Excluded Items:		
V37. Compared to other things I could have done, the time spent shopping at this store was truly enjoyable.		
V38. I enjoyed being immersed in exciting new products.		
V39. I enjoyed shopping at this store for its own sake, not just for the items I may have purchased.		
V40. I enjoyed a time because I was able to act on the "spur-of-the-moment."		
V41. During a shopping trip I feel the excitement of hunt.		
V42. While shopping at this store, I was able to forget my problems.		
Purchase Acceleration		
V45. On this shopping trip, I purchased an item that I had not planned to purchase.	.81	.84
V46. I purchased more products than I would do normally on this trip.	.70	
V47. I made a purchase decision immediately rather than postponing until the next visit to this store.	.83	

Analysis of the Structural Model

Path Analysis for Antecedents and Consequences of In-Store Hoarding

A latent SEM analysis with Maximum Likelihood Estimation was conducted to test the causal relationship between constructs. The results of path analysis indicated that

the proposed model had a significant chi-square value (χ^2= 879.136, df=471, p<0.001, χ^2/df=1.86), but other model fit indices showed a satisfactory fit to the data (CFI=.92, NNFI=.91, IFI=.92, RMSEA=.06). The standardized factor loading estimates and fit indices are reported in Figure 3 and Appendix C. All of the parameter estimates for the structural paths were in the hypothesized direction, except for one path for the effect of scarcity on anticipated gains of buying. The results of hypotheses tests are summarized in Appendix D.

As proposed, perishability had a significantly positive effect on anticipated gains of buying (standardized estimates= .29, t= 3.922, p<.001) and anticipated losses of not buying (standardized estimates= .35, t= 5.190, p<.001), supporting Hypotheses 1 and 2. On the other hand, although perceived scarcity was hypothesized to have a positive effect on anticipated gains of buying, the result showed that there was no significant effect of scarcity on this variable (standardized estimates= -.03, t= -.405, p= .686, n.s.). Therefore, Hypothesis 3 was rejected. In addition, scarcity showed a significant and positive effect on anticipated losses of not buying (standardized estimates= .32, t= 5.030, p<.001), supporting Hypothesis 4.

Hypothesis 1: *The greater the level of perishability, the greater the level of anticipated gains of buying. (Supported)*

Hypothesis 2: *The greater the level of perishability, the greater the level of anticipated losses of not buying. (Supported)*

Hypothesis 3: *The greater the level of perceived scarcity, the greater the level of anticipated gains of buying. (Not supported)*

Hypothesis 4: *The greater the level of scarcity, the greater the level of anticipated losses of not buying. (Supported)*

Both anticipated gains of buying (standardized estimates=.27, t= 3.753, p<.001) and anticipated losses of not buying (standardized estimates= .50, t= 6.078, p< .001) significantly increased in-store hoarding. Therefore, Hypotheses 7 and 8 were supported.

For the consequences of in-store hoarding, the relationship with shopping hedonism and purchase acceleration were tested. As hypothesized, there were significant and positive effects of in-store hoarding on both shopping hedonism (standardized estimates= .32, t= 4.190, p= <.001) and purchase acceleration (standardized estimates= .42, t= 4.517, p= <.001). Furthermore, shopping hedonism showed a significant and positive effect on purchase acceleration (standardized estimates= .22, t= 2.643, p= .008). Therefore, Hypotheses 10, 11 and 12 were all supported.

Hypothesis 7: *The greater the level of anticipated gains of buying, the greater the level of in-store hoarding. (Supported)*

Hypothesis 8: *The greater the level of anticipated losses of not buying, the greater the level of in-store hoarding. (Supported)*

Hypothesis 10: *The greater the level of in-store hoarding, the greater the level of shopping hedonism. (Supported)*

Hypothesis 11: *The greater the level of shopping hedonism, the greater the level of purchase acceleration. (Supported)*

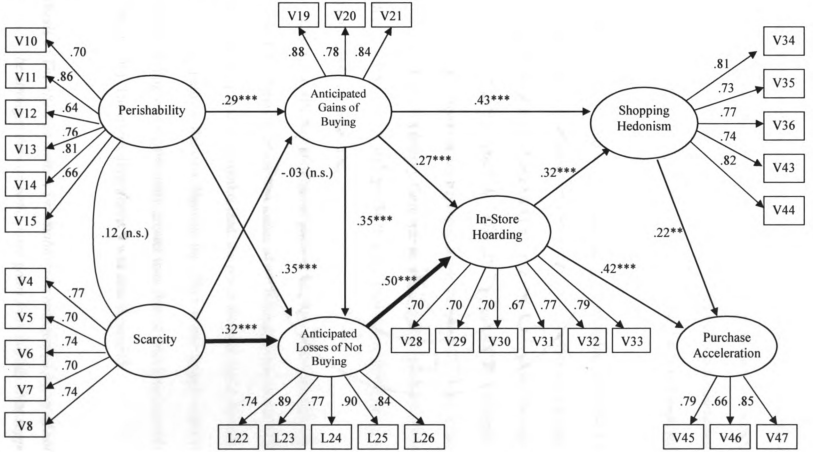
Hypothesis 12: *The greater the level of in-store hoarding, the greater the level of purchase acceleration. (Supported)*

Unexpectedly, the modification indices suggested a significant χ^2 improvement by releasing a path between anticipated gains of buying and shopping hedonism. Although this link was not proposed in the originally proposed model, it is reasonable to assume that anticipated gains such as uniqueness and self-image improvement by owning fast fashion products will induce great shopping excitement and pleasure among shoppers.

Therefore, a new path linking these two constructs was allowed and it showed a significant and positive effect of anticipated gains on shopping hedonism (standardized estimates= .43, t= 5.714, p<.001).

In addition, there was a significant association between anticipated gains of buying and losses of not buying. Based on the logical discussions by Inman and McAlister (1994) and Spears (2001) that consumers' perceived gains from promotional offers are transferred to perceived losses as the expiration date to take advantage of such deals approaches, the model was respecified by allowing a new path between these two constructs. Anticipated gains of buying showed a significantly positive effect on anticipated losses of not buying (standardized estimates= .35, t= .058, p<.001).

Figure 3. Result of the Path Analysis



χ^2= 879.136, df=471, p<0.001, χ^2/df=1.86

CFI=.92, NNFI=.91, IFI=.92, RMSEA=.06

*** P<.001, ** P<.01

Comparison of Path Coefficients

To examine differences in the path effect size between the effects of perishability and scarcity on anticipated gains of buying and anticipated losses of not buying, the chi-square difference test for the comparison of path coefficients was conducted by constraining each path to be equal and then releasing the path (Anderson and Gerbing, 1988). The result is shown in Table 5.

As proposed in Hypothesis 6, the result indicated that there was a significant difference in the path coefficients between the effect of scarcity on anticipated gains of buying (Gain ← Scarcity) and its effect on anticipated losses of not buying (Loss ← Scarcity) ($\Delta\chi^2 = 12.031$, $p<.001$). However, although perishability showed a stronger effect on anticipated losses of not buying (Loss ← Perishability) than on anticipated gains of buying (Gain ← Perishability), there was no statistically significant difference between the path coefficients ($\Delta\chi^2 = .037$, $p= .8475$, n.s.). Therefore, Hypothesis 5 was rejected and Hypothesis 6 was supported.

Lastly, the effect of anticipated gains of buying on in-store hoarding (Hoarding ← Gain) and the effect of anticipated losses of not buying on in-store hoarding (Hoarding ← Loss) were compared. As hypothesized, the result showed that there was a significant difference in the path coefficients. Namely, the effect of anticipated losses of not buying on in-store hoarding was significantly greater than that of anticipated gains of buying ($\Delta\chi^2 = 4.798$, $p<.05$). Therefore, Hypothesis 9 was also supported.

Hypothesis 5: *The effect of fashion perishability on anticipated losses of not buying will be stronger than on anticipated gains from buying. (Not supported)*

Hypothesis 6: *The effect of scarcity on anticipated losses of not buying will be stronger than on anticipated gains from buying. (Supported)*

Hypothesis 9: *The effect of anticipated losses on in-store hoarding will be stronger than that of anticipated gains. (Supported)*

Table 5. Path Comparison: Result of χ^2 Difference Test

	χ^2	Df	$\Delta\chi^2$	p-value
Unconstrained baseline model	879.136	471	-	-
Equality Constrained Path				
(Parish → Gain) = (Parish → Loss)	879.173	472	0.037	0.8475
(Scarcity → Gain) = (Scarcity → Loss)	891.167	472	12.031	0.0001
(Gain → Hoarding) = (Loss → Hoarding)	883.934	472	4.798	0.0285

Note: Models were compared between unconstrained baseline model and a model with a path parameter which was constrained to be equal across the two groups.

Moderation Effect—Fashion Innovativeness

To test the moderation effect of innovativeness, summed scores for six items were computed and approximately the top 40% of the sample was divided into fashion innovators and around 40% of the bottom for non-innovators. The middle 20% was removed from the analysis to find distinctive differences between the groups.

The comparison of the strength of the path coefficients was conducted by constraining each path to be equal across the two groups, and the resulting model fit was compared to a base model in which all paths were freely estimated (Anderson and Gerbing, 1988). The data showed a partial support for the moderating effect of innovativeness. The result is shown in Tables 6 and 7 and Figures 4 and 5.

As expected, the result of a chi-square difference test indicated that there was a significant difference in the chi-square change when the equality constraint for perishability and anticipated gains of buying (Gain ← Perishability) was released between the two groups ($\Delta \chi^2 = 4.1$, $p<.0429$). The innovators showed a significantly stronger relationship than do non-innovators, supporting H13. Interestingly, the path was highly significant for innovators (standardized estimates= .50, $p<.001$), whereas it was not significant for non-innovators (standardized estimates=.12, p=.294).

For H14, the chi-square difference test indicated that the release of the equality constraints between the scarcity and the anticipated gains of buying (Gain ← Scarcity) did not significantly improve the model fit ($\Delta \chi^2 = .2$, p=.6547, n.s.). Therefore, H14 was rejected.

Hypothesis 13: *The effect of perishability on anticipated gains of buying will be stronger for innovators than non-innovators. (Supported)*

Hypothesis 14: *The effect of scarcity on anticipated gains of buying will be stronger for innovators than non-innovators. (Not supported)*

The chi-square difference test showed the release of equality constraint of the perishability and the anticipated losses of not buying (Loss ← Perishability) did not significantly improve the model fit ($\Delta \chi^2 = 3.4$, p=.0652, n.s.). Therefore, H15 was not supported. Also, although it was in the hypothesized direction, there was no significant difference between the two groups in the effect of scarcity on anticipated losses of not buying (Loss ← Scarcity), leading to a rejection of H16 ($\Delta \chi^2 = .1$, p=.7518, n.s.).

Hypothesis 15: *The effect of perishability on anticipated losses of not buying will be stronger for innovators than non-innovators. (Not supported)*

Hypothesis 16: *The effect of scarcity on anticipated losses of not buying will be stronger for innovators than non-innovators. (Not supported)*

As proposed, the chi-square difference test showed a significant model fit improvement when the equality constraint of the anticipated gains of buying and in-store hoarding (Hoard ← Gain) was released ($\Delta \chi^2 = 4.2$, $p<.0404$). In other words, innovators showed a stronger relationship between the anticipated gains of buying and in-store hoarding than did non-innovators, supporting H17. Interestingly, such a significant relationship was not found for the non-innovative group.

Lastly, the path coefficients for the effect of anticipated losses of not buying on in-store hoarding (Hoard ← Loss) did not significantly differ between the groups ($\Delta \chi^2 = 1.4$, $p= .2367$, n.s.). Therefore, H18 was not supported. Although not significantly different, the result showed the opposite prediction to the hypothesis. Namely, non-innovators showed a stronger effect of the anticipated losses on in-store hoarding than did innovators.

Hypothesis 17: *The effect of anticipated gains of buying on in-store hoarding will be stronger for innovators than non-innovators. (Supported)*

Hypothesis 18: *The effect of anticipated losses of not buying on in-store hoarding will be stronger for innovators than non-innovators. (Not supported)*

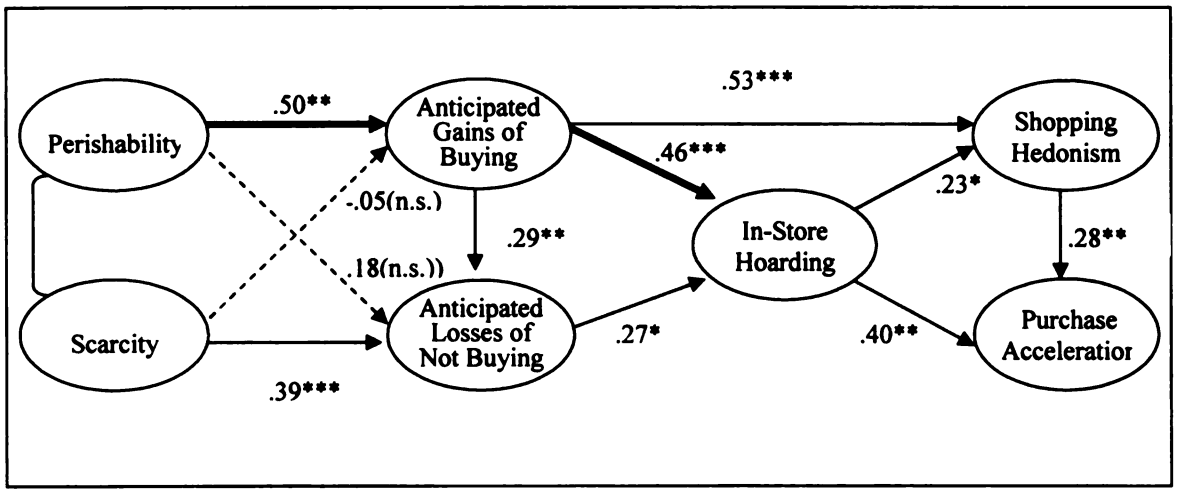
Table 6. Multiple Group Path Comparison Test: Innovativeness

	χ^2	Df	$\Delta\chi^2$	p-value
Unconstrained baseline model	1722.5	942	-	-
Constrained Paths				
Gain ← Perishability	1726.6	943	4.1*	0.0429
Gain ← Scarcity	1722.7	943	0.2	0.6547
Loss ← Perishability	1725.9	943	3.4	0.0652
Loss ← Scarcity	1722.6	943	0.1	0.7518
Loss ← Gain	1726.2	943	3.7	0.0544
Hoard ← Gain	1726.7	943	4.2*	0.0404
Hoard ← Loss	1723.9	943	1.4	0.2367
Hedonism ← Gain	1722.7	943	0.2	0.6547
Hedonism ← Hoard	1722.6	943	0.1	0.7518
Purchase ← Hedonism	1722.6	943	0.1	0.7518
Purchase ← Hoard	1725.6	943	3.1	0.0783

Note: Models were compared between unconstrained baseline model and a model with a path parameter which was constrained to be equal across the two groups.

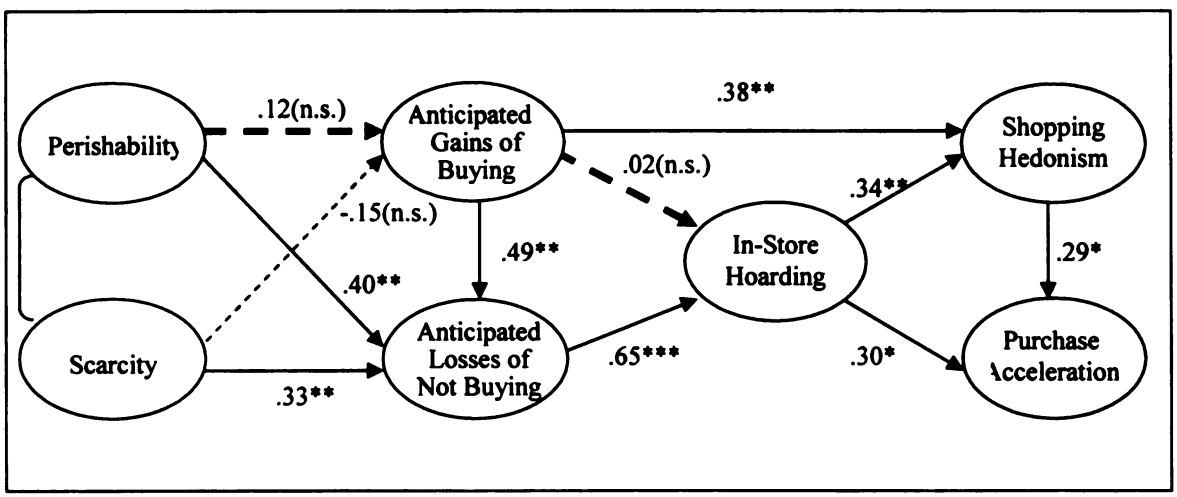
Significance levels: $^{*}p < 0.05$
Shaded parts indicate a significant difference in the path coefficient between the groups.

Figure 4. Path Coefficients for Innovators (n=88)



*** P<.001, ** P<.01, *p<.05
Note: Items for each construct are not shown in the figure.

Figure 5. Path Coefficients for Non-Innovators (n=96)



*** P<.001, ** P<.01, *p<.05
Note: Items for each construct are not shown in the figure.

Table 7. Result of Structural Equation Model Estimation for Innovators and Non-Innovators

	Path	Innovators (N=88)		Non-Innovators (N=96)	
		Standardized Estimates	P-value	Standardized Estimates	P-value
Parameter Estimates	Gain ← Perishability	.50***	.000	.12 (n.s.)	.289
	Gain ← Scarcity	-.05 (n.s.)	.646	-.15 (n.s.)	.199
	Loss ← Perishability	.18 (n.s.)	.130	.40***	.000
	Loss ← Scarcity	.39***	.000	.33**	.001
	Loss ← Gain	.29**	.009	.49***	.000
	Hoard ← Gain	.46***	.000	.01 (n.s.)	.949
	Hoard ← Loss	.27*	.015	.65***	.000
	Hedonism ← Gain	.53***	.000	.38**	.002
	Hedonism ← Hoard	.23*	.038	.34**	.005
	Purchase ← Hedonism	.28**	.007	.29*	.031
	Purchase ← Hoard	.40***	.000	.30*	.031
Fit Indices	χ^2 = 1722.521, df= 942, p< .001, χ^2/df= 1.829 IFI= .83, CFI=.82, RMSEA=.067				

Significance levels: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Shaded parts indicate a significant difference in the path coefficient between the groups.

DISCUSSION

This study raises questions about the role of in-store hoarding and investigates the antecedents and consequences of hoarding at fast fashion stores. The anticipated gains of buying and losses of not buying influenced by the two implicit time limited cues (perishability and scarcity) are proposed as antecedents of in-store hoarding. Furthermore, based on previous literature review, shopping hedonism and purchase acceleration are modeled as consequences of in-store hoarding. Prospect theory, commodity theory, uniqueness theory, mood effect and physical proximity effect provided theoretical supports. Overall, the findings of this study support the proposed model in explaining and predicting consumers' in-store hoarding behavior in fast fashion stores. The following section discusses findings more specifically in each criterion.

Antecedents of In-Store Hoarding

First, this study found that scarcity and perishability are significant drivers of in-store hoarding through anticipated gains of buying and anticipated losses of not buying. Perishability positively influenced consumers' anticipated gains of buying. The perceived benefits from buying include positive feelings about the product or self-image due to wearing the product. The more consumers are aware of perishability, the greater the anticipated gains of buying. This implies that fashion perishability resulting from constant release of the latest fashion increases the valuation of fashion items.

In addition, it was proposed that if consumers perceived scarcity of products, their anticipated gains of buying would be greater than those who did not, to the point

that fashion forward consumers tend to appreciate exclusivity or limited availability of products (Szybillo, 1973; Brannon, 2005). Unexpectedly, however, while scarcity significantly influenced consumers' anticipated losses of not buying, it did not have a significant effect on the anticipated gains of buying. Put differently, the perceived or experienced scarcity of products was only related to the anticipated loss of not buying, while it did not significantly affect—either positively or negatively—the way they perceive or value a product. Therefore, in this study, the scarcity effect—a positive valuation of scarcity—proposed by commodity theory (Brock, 1968) was not found.

In addition to scarcity, perishability led to the anticipated losses of not buying. Namely, both perceived scarcity and perishability increase worries about out of stock possibility, or regrets or psychological loss that may result if consumers did not get it right away. In turn, along with the anticipated gains of buying, such anticipated losses of not buying significantly rendered them eager to grab products immediately and carry them around while shopping. This is consistent with the notion that general hoarding occurs in a fear of scarcity or possibility of product unavailability (Meagher, and Riskind, 2001; Frost and Gross, 1993, McKinnon, Smith, and Hunt, 1985; Ong, 1999; Verhallen and Robben, 1994). This also implies that the hoarding literature can be applied to a specific in-store hoarding situation.

Prospect Theory–Path Comparison

Prospect theory explains consumer decision-making under uncertainty and proposes that consumers respond to losses more sensitively. As a result, people tend to make a decision to minimize losses. Findings in this study were consistent with the

concepts in prospect theory. As hypothesized, scarcity was more strongly related to the anticipated losses of not buying than to the anticipated gains of buying. More importantly, the anticipated loss of not buying was a stronger determinant of in-store hoarding than the anticipated gains of buying. This finding is in line with prospect theory's consumer loss aversion under uncertainty (Kahneman and Tversky, 1979; Tversky and Kahneman, 1992). Furthermore, Spears (2001) acknowledged that time limited promotions influence consumer behavior by expediting a purchase because consumers are promoted to advance promotional gains before the opportunity to participate is lost. Hence, this finding implies that a strategic use of implicit time-limited cues significantly expedite in-store hoarding primarily by increasing consumers' psychological losses or discomfort, such as worries about out of stock possibility or anticipated regret resulting from a delayed purchase decision.

Furthermore, there was a significant link between the anticipated gains of buying and anticipated losses of not buying. This finding supports the arguments by Inman and McAlister (1994) and Spears (2001) that consumers first perceive gains from promotional offers (e.g., delay of payment or coupon offered), and then such perceived gains are reframed as a potential loss with the increasing possibility of losing an opportunity to take advantage of the promotional offers as the deadline for participation closes.

Prior Store knowledge

Prior store knowledge gained through direct and indirect experience has been found to be an important determinant of behavior. Therefore, a post hoc analysis was conducted to examine how prior store knowledge influenced the perception of scarcity and perishability and further in-store hoarding. The result is reported in Appendix E.

The data revealed that prior store knowledge significantly influences the perception of perishability. Shoppers with a high level of store knowledge tended to be aware of perishability more strongly compared to people with a low level of store knowledge. On the other hand, store knowledge did not affect the perception of scarcity. Finally, store knowledge had a significant and positive effect on in-store hoarding. Namely, people with high store knowledge tend to hoard products more while shopping. Taken together, such findings may imply that prior store knowledge is a factor that partially explains variations in perception of perishability and in-store hoarding behavior.

Consequences of In-store Hoarding

This study empirically supported that in-store hoarding is closely related to shopping hedonism and purchase acceleration as it significantly increased hedonic evaluation of shopping activity and accelerated actual purchases. In-store hoarding activity made shopping more fun, exciting, and playful, which ultimately led to purchase acceleration.

There was also an indirect effect of in-store hoarding on purchase acceleration through shopping hedonism. In other words, the more the consumers experienced hedonic shopping values, the more likely they were to purchase more than they expected or normally do. These findings are consistent with the notions proposed by the mood effect that when they are in a good mood or hedonic state they tend to spend more money on products (Donovan, Rossiter, Marcoolyn and Nesdale, 1994; Donavan and Roister, 1982; Roehm and Roehm, 2005; Kahn and Isen, 1993). In addition, shopping hedonism was also significantly induced by the anticipated gains of buying. Given that the

anticipated gains mainly come from the perceived perishability in this study, this implies that anticipated positive thoughts or feelings perceived from constantly delivered latest fashion make shoppers more excited and pleasant, increasing shopping hedonism.

In addition, it appeared that hoarded products showed a higher possibility of being purchased. Thus, this study confirmed the psychology of physical proximity that people tend to purchase more when they are actually close to the products (Rook, 1987; Beatty and Ferrell, 1998). Fundamentally, the view of accelerated purchase triggered by the implicit time-limited cues is in line with the studies that the time-limited nature of promotions strongly encourage customers' purchase intention, while discouraging the intent to search further for deals (Aggarwal and Vaidyanathan, 2003; Spears, 2001).

Moderation Effect of Innovativeness

The moderation effect of innovativeness was proposed and tested to examine individual differences in in-store hoarding behavior. However, from Hypotheses 13 through 18, only two of them supported the theoretically hypothesized moderating effect, indicating that innovativeness does not fully differentiate consumer in-store hoarding behavior. Nevertheless, the differences between innovators and non-innovators in the two supported hypothesized relationships provide vital implications for both theorists and practitioners.

First, on an interesting note, the role of perishability was different in affecting consumer perception and behavior depending on the level of innovativeness. Namely, innovators were more likely to interpret it as a positive cue that increases the desirability

of fashion items. For this group, perishability was not significantly associated with the anticipated losses of not buying. In contrast, non-innovators did not relate perishability with anticipated gains of buying but with anticipated losses of not buying, encouraging immediate action.

Secondly, drivers for in-store hoarding varied according to innovativeness. For innovators, both anticipated gains of buying and loss of not buying were determinants of in-store hoarding. On the other hand, for non-innovators, only anticipated losses of not buying motivated them to hoard and anticipated gains of buying had no significant influence on hoarding. A likely explanation for this is that innovators have a stronger autonomy in product selection and purchase decision-making than do non-innovators. They influence people rather than being influenced by them (Brannon, 2005). Innovators have an autonomy to filter from the many options those that fit their individual aesthetic, by simply appreciating or enjoying quick movement of products and trying on frequently updated fashion. This finding is in accordance with previous empirical findings that innovators tend to prefer products that are new, exclusive, or distinctive in the need of uniqueness (Fromkin, 1973). However, as evidenced by the significant, positive effect of scarcity on anticipated loss of not buying, once consumers found their favorite items, they were influenced by the possibility of it becoming out of stock, therefore hoarding the items immediately to avoid uncertainty. Non-innovators are trend followers. This group of people is motivated to follow a new trend and is more likely to be strongly influenced by time constraints or quantity constraints planned by marketers than are innovators.

In the other four hypotheses, there were no significant differences between innovators and non-innovators. In both groups, the perceived scarcity did not influence anticipated gains of buying. In summary, the results showed that innovativeness partially

acts as a moderator in some of the antecedents of in-store hoarding. In particular, perishability is perceived differently depending on innovativeness.

CHAPTER V

CONCLUSION AND IMPLICATIONS

As the market becomes dynamic and volatile, more retailers are moving toward fast fashion by constantly delivering new products throughout the season to maintain inventory freshness and make the selling floor more inviting for shoppers (Brannon, 2005). This fast fashion strategy is a marketing approach to respond to the latest fashion trends by frequently updating products with a short renewal cycle and turning the inventory at a rapid rate, constantly making room for new offerings. As a result, a product life span is dramatically reduced, thereby increasing fashion perishability. Moreover, in order to make constant room for new products and minimize markdowns, fast fashion retailers deliberately limit product availability, creating a sense of scarcity in the part of consumers.

This study proposed such increased perishability and scarcity as implicit time-limited cues that influence consumers to take immediate action while in the store. Being aware of these implicit signals, shoppers are trigged to hoard products spontaneously with anticipated psychological gains from acquiring or using the product and/or anticipated losses or regrets from delayed decision-making. In this study, in-store hoarding was conceptualized as a dominant shopping behavior observed in fast fashion stores. The conception was introduced and its antecedents and consequences were investigated. The following section discusses its theoretical and marketing implications.

Theoretical Implications

This study is the first known academic effort to address the competitiveness of fast fashion strategies from a consumer behavior perspective. Previously, the focus has

been placed on supply chain management (Moore and Fernie, 2003). How consumers respond to the fast fashion strategy has been overlooked in investigating its strategic competitiveness. More over, since there has been no consensus on the clear definition of this strategy, it was redefined to cover the major characteristics of the fast fashion strategy: Constant delivery of latest fashion with a short renewal cycle. With the growing importance of fast fashion in today's time-based competition, understanding changing consumer behavior will contribute to extending the body of the literature and the theoretical frameworks in the consumer and retailing field.

Second, this study also initiated scholarly inquiry about the role of in-store hoarding. Based on the empirical investigation of actual shoppers and purchasers in fast fashion stores, this study supported that perishability and scarcity are central to understanding in-store hoarding. Anticipated gains of buying and anticipated losses of not buying were found to be mediators in the effect of perishability and scarcity on in-store hoarding. Perhaps more importantly, this study provided meaningful implications by confirming the consequences of in-store hoarding. Namely, the data demonstrated that in-store hoarding significantly increased purchase acceleration as well as shopping hedonism. Overall, the proposed model ensured the theoretical soundness and coherence of the conceptual model.

Third, this study contributed to extending the scope of the literature by investigating *implicit* time limited cues. They are implicit because there are no written or direct signals. Previous studies have focused on the time-limited promotions using explicit semantic cues. In addition, the messages of such promotions were mostly price- or sales-oriented which provided only a short-term solution since these were easily imitated by competitors. Moreover, Aggarwal and Vaidyanathan (2003) acknowledged

that it has not been clear how the time constraint or the quantity constraint affects consumer shopping behavior and purchase decision-making. With this regard, this study contributed to the literature by identifying and empirically testing the effect of the two implicit time-limited cues—perishability from a short renewal cycle and scarcity from deliberately limited product availability. Apparently, these two cues substantially influenced consumer behavior by increasing the level of anticipated losses of not buying, ultimately inviting them to take immediate action.

Fourth, by applying prospect theory as a theoretical explanation, this study extended the understanding of consumer behavior regarding the uncertainty about product availability accelerated by scarcity and perishability. Such implicit time-limited cues had a stronger influence on anticipated psychological losses arising from lost opportunity to purchase it or possible future regret resulting from not taking immediate action, than on anticipated gains of buying. Additionally, evidenced by the positive effect of anticipated gains on anticipated loss of not buying, this study confirmed that the perceived gain was reframed as a loss if consumers do not take advantage of an opportunity to acquire a product or benefit from a promotional offer (for example, a coupon or limited big sale) when it is available or valid. Furthermore, this study found that such anticipated loss of not buying was clearly a more dominant determinant of in-store hoarding relative to anticipated gains of buying, which evidently demonstrated the effectiveness of the fast fashion retailers' implicit message, "Buy now, it won't be here tomorrow." This study increased the validity of prospect theory by applying it to an empirical study. It supported its major view that consumers are more sensitive to a loss than a gain and thus people select an option that minimizes the risks. This study theoretically demonstrated the role of implicit-time limited cues in affecting consumer

shopping and purchase behavior.

Fifth, considering the economic significance of fashion goods, it becomes more important to understand the factors affecting consumer valuation of fashion goods (Szybillo, 1973). Although the scarcity effect—a positive valuation of scarce products—was not supported in this study, the findings of the positive effect of perishability on anticipated gains of buying provided an answer for the question. Namely, a rapid and constant delivery of the latest fashion throughout the season substantially increases the valuation of fashion products in today's time-based market.

Sixth, the moderation effect of innovativeness contributed to explaining the partial variations of in-store hoarding. For innovators, perishability was primarily perceived as a gain rather than a loss and both the gains and losses proved to be of crucial importance in determining in-store hoarding. This anticipated loss of not buying was only meaningfully affected by perceived scarcity. By contrast, in the case of non-innovators, perishability was not interpreted as a gain but it exclusively increased their anticipated loss of not buying. Such differences highlighted individual differences in interpreting marketing signals and the consequent consumer behavior.

Seventh, this study made a significant contribution to the consumer and retailing literature by introducing, defining, and operationalizing new constructs or new measurements. It includes measures for perishability, scarcity, anticipated gain of buying, anticipated loss of not buying, and in-store hoarding. Scales for purchase acceleration were modified to fit in the survey method. Following Churchill's (1979) procedure of scale development, considerable efforts were made to generate valid and reliable measurement scales for these constructs. All of the measures proved reliable and significantly linked with other constructs, showing strong convergent validity and

nomological validity. Therefore, this study paved a way to investigate more diverse aspects of consumer behavior by developing new constructs and measures.

Eighth, this study advanced the shopping hedonism literature, an underdeveloped but important research area (Sternquist, Byun and Jin, 2004). By linking in-store hoarding, this study contributed to the literature by finding a new but powerful antecedent that makes shopping more fun, enjoyable, and playful. This theoretical linkage provides insights into in-store hoarding as a new and interesting element of retail entertainment.

Finally, many consumer researches have been criticized because they mostly focused on convenience samples such as students. In this regard, the findings of this study are more meaningful in that it used actual shoppers and investigated actual purchase activity instead of purchase intention.

Marketing Implications

This study also provides useful implications for practitioners in developing and implementing marketing and merchandising management strategies. The following discusses major implications of this study.

First, as today's retailers increasingly offer comparable merchandise and compete with strategies that can be easily imitated, they should direct more of their attention at developing long-term and non-price oriented strategies. The emphasis on price-led promotion encourages consumers' store or brand switching (Corstjens and Corstjens, 1999). This study may suggest that retailers can avoid price-oriented competition and affect purchase behavior by manipulating implicit time-limited cues such

as scarcity and perishability. For example, even retailers who do not have capabilities to implement fast fashion could also make their products more appealing by utilizing promotional and display techniques to give the impression that the product is in limited supply (Verhallen and Robben, 1994; Szybillo, 1973), or provide fresh or different looks by simply changing product layouts or positions more frequently.

Second, contrasting the conventional norm of sure availability of products to avoid sales losses, fast fashion retailers intentionally limit supply. Although the scarcity effect was not found in this study, the findings of this study demonstrated the significant role of scarcity from a strategic perspective. Namely, perceived scarcity significantly triggered hoarding by increasing worries about the possibility of an item being out of stock. This eventually led shoppers to accelerate purchases by making an immediate purchase or purchasing more than they expected. In addition to scarcity, perishability also showed the same positive effect on anticipated loss of not buying. Therefore, retailers would benefit from a greater understanding of whether greater level of perceived scarcity or perishability lead to a greater level of anticipated loss of not buying.

Third, of perhaps even greater interest to retailers is the consequences of in-store hoarding. The study found that consumers' awareness about the implicit time-limited cues could alter shopping patterns by encouraging immediate hoarding, in turn powerfully precipitating a purchase. This phenomenon can be understood by the increased impulsivity or urge to buy when people are physically close to their favorite products. Hoarded products, in opposition to abundant products that are easily picked up or without any competition, are more likely to be meaningful to shoppers. As a result, customers are less likely to delay their purchase or give up the products unless there is a financial constraint or size problem. As brand or store switching has been a problem for

most companies, this holds important implications for retailers. Namely, by manipulating scarcity and perishability, retailers may create a certain level of shopping competition among shoppers, thereby encouraging immediate actions in the store.

Additionally, in the increasingly competitive environment, retaining existing customers and attracting new ones has been a challenge for all companies. Accordingly, the pursuit of customer loyalty becomes extremely vital (Carpenter and Fairhurst, 2005; Koufaris, 2002; Pine and Gilmore, 1999). Among many outcome variables that make shoppers keep coming back, shopping hedonism has recently received most attention in retailing literature. Many researchers found that hedonic shopping experience is positively related to repatronage intention and store selection (e.g., Babin and Darden, 1996; Yoo, Park, and MacInnis, 1998; Sherman and Smith, 1986; Kim and Jin, 2001; Carpenter and Fairhurst, 2005). As proved in the positive effect of in-store hoarding on shopping hedonism, consumers tend to consider in-store hoarding as a fun activity. Furthermore, the imagining of psychological gains from acquisition of fast fashion products greatly increased hedonic shopping values. Apparently, today's consumers are easily bored with the same choice options and are not excited with easy-to-get products or fashion that is abundant or always available. Therefore, this study suggests that increasing the level of competition among shoppers by utilizing the two implicit time-limited cues as well as providing unique and distinctive products on a frequent basis would be an effective way to increase shopping hedonism, which eventually leads them to spend more time in a store, purchase more, and visit the store more frequently.

Fifth, this finding demonstrates that the moderating role of innovativeness cannot be neglected. The study found that fashion innovators evaluate perishability of fashion products as more desirable and appealing than do non-innovators. This implies

that innovative consumers appreciate continuous innovation in fashion which motivates them to frequently visit the stores looking for the latest products. They are willing to try a new fashion every time new products are introduced and influence fashion opinion leaders and fashion followers by increasing visibility of new fashion (Goldsmith and Newell, 1997; Brannon 2005). Importantly to note, among other dimensions of Rogers (1983)'s innovation including compatibility, complexity, observability, trialability and perceived risk, relative advantage has been identified to be one of the dominant factors affecting the adoption of innovation (Holak, 1985; Holak, Lehmann and Sultan, 1987; Olshavsky and Spreng, 1996). Given that, retailers should be able to stimulate psychological obsolescence by highlighting a positive aspect of perishability of fashion as a relative advantage for innovators. With new product expectations, such relative advantages of fashion perishability will provide them with strong motivations to try on new trends and visit the sore more frequently.

On the other hand, non-innovators were more sensitive to the possibility of out of stock or uncertainty of product availability, increasing anticipated losses when they did not get it immediately. Accordingly, such anticipated loss was a dominant driver of in-store hoarding for non-innovators. These findings imply that actual purchase is influenced by different factors or circumstances depending on innovativeness. Innovators and non-innovators are both important customers for fast fashion retailers and play different roles in the diffusion of innovation (Brannon, 2005). Retailers should keep in mind this difference and strategically use it to appeal to innovators and non-innovators, respectively. In summary, for the innovative group, retailers should emphasize the positive aspects of perishability—that is, benefits from the delivery of the latest fashion on a frequent basis—to motivate them to hoard products and lead to actual purchasing.

On the other hand, for the non-innovative group, emphasis on the fact that "here today, gone tomorrow" or "buy now, it won't be here tomorrow" could be a significant signal affecting their behavior. Furthermore, fast fashion retailers may influence non-innovators' purchase behavior by making them feel confident about their buying decisions or giving a belief that they can get the most fashionable products in these store and therefore buying here reduces fashion risks.

Lastly, the results from the additional analysis of the effect of prior store knowledge indicated that there was a difference between highly knowledgeable shoppers and less knowledgeable shoppers in the perception of perishability and the resulting hoarding behavior. In other words, shoppers with high store knowledge tend to be more aware of a short product renewal cycle and quick movement of products. Moreover, they tend to show stronger hoarding tendency than people with low or no store knowledge. It appears that being aware of perishability, knowledgeable shoppers are ready to hoard products as soon as they step into the store. Therefore, provided that perishability is a major exogenous variable for in-store hoarding which in turn positively affects shopping hedonism and purchase acceleration, retailers should try to increase consumers' store knowledge level by drawing new customers into the store or increasing their awareness of their strategy by using promotional strategies such as media or word of mouth.

In conclusion, beyond the traditional mix of price and quality, more retailers are moving toward unique and diverse experiential values as a way to differentiate from their competitors (Pine and Gilmore,1999; Mathwick, Malhotra, and Rigdon, 2001). In this regard, understanding of the antecedents and consequences of in-store hoarding behavior is expected to provide a number of implications for consumer research and marketing.

LIMITATIONS OF THE STUDY

Before drawing generalizations from these results, several limitations of this study should be taken into account.

First, this study focused on only two fast fashion retailers located in New York City, although the data were collected from ten different stores. Although these retailers are the leading companies implementing fast fashion strategy, the findings of this study should be interpreted considering this limitation. In addition, the data were collected from only one location, New York City, thus the representativeness of the sample is a major limitation of this study.

Second, this study attempted to reduce confounding factors by limiting the response time to 48 hours. Nevertheless, because New Yorkers are exposed to many other fashion stores, it is likely that respondents who shopped several stores on the same day or next day may have a less clear memory about their shopping experience about the store where they were asked to respond to this survey.

Third, the sample size for the group comparison was not large enough for testing the complex model and consequently some of the model fit indices were slightly below the desired levels. Therefore, caution is required when the results are interpreted.

Fourth, some bias might have been introduced by the omission of important variables. In-store hoarding is influenced by many other factors such as price or store crowdedness. Therefore, additional variables could be included and tested in order to more fully explain in-store hoarding and its outcome variables.

Fifth, the positive valuation of scarcity was not supported in this study. A potential bias might be related to the measurement of scarcity. The perception of scarcity

might be confounded or conflicted with a variety of products offered by fast fashion retailers.

Lastly, it is probable that the majority of the respondents who participated in this survey had a more positive attitude toward the brand or a more pleasant shopping experience than those who did not participate. Therefore, caution is required when the results are interpreted and generalized.

FUTURE RESEARCH

In response to the limitations mentioned above, the study suggests several directions for future research.

First, the proposed model in this study should be extended to include additional variables. In-store hoarding is a new concept in retail and consumer literature. This study focused on perishability and scarcity as implicit time-limited cues. As discussed previously, in-store hoarding may be triggered by a number of reasons. Some of the examples could be the effect of price, a variety of products, and store crowdedness. When price is lower than consumers' internal reference price, a diverse set of products are offered, or the store is crowded with shoppers, hoarding is likely to be prompted due to the increased competition among shoppers. Therefore, incorporating additional exogenous variables of in-store hoarding would increase the exploratory power of this construct. Thus, further investigation of in-store hoarding is warranted.

Second, in addition to the call for the extended research on the antecedents of in-store hoarding, future research should especially devote attention to the outcomes of in-

store hoarding. In this study, it was limited to cover purchase acceleration and shopping hedonism, but further research should be conducted to investigate how perceived perishability and scarcity and the resulting in-store hoarding influence store visit frequency and repatronage intention.

In addition, this study should be replicated in diverse contexts to increase the validity of the findings. New measurements should be retested multiple times to be refined. Furthermore, the validity of the findings could be improved with a more substantial number of respondents from diverse geographical locations. The replicability of the proposed model also requires inclusion of more varied fast fashion retailers at different price ranges and merchandising concepts.

Fourth, future research should explore possible ways to reduce response bias. To minimize the response bias resulting from the confusion of memory, the data should be acquired as soon as shoppers exit a store or in a shorter time than 48 hours. As mentioned, the respondents of this study might have a more positive attitude toward the brand, which may create response bias. Therefore, such confounding factors should be identified and tested as moderators in future research.

Fifth, an interesting direction for future research could be an empirical comparison of fast fashion stores and non-fast fashion stores. It would be interesting to investigate what the major drivers of in-store hoarding for non-fast fashion stores are and how they are different from fast fashion retailers. This finding may provide meaningful implications for both retailers. Another related future research area is men's hoarding behavior. Are they also sensitive to perishability and scarcity? Do they hoard in fast fashion stores in the same way women do? The investigation of such questions would be a fruitful research direction as male consumers become more conscious about fashion.

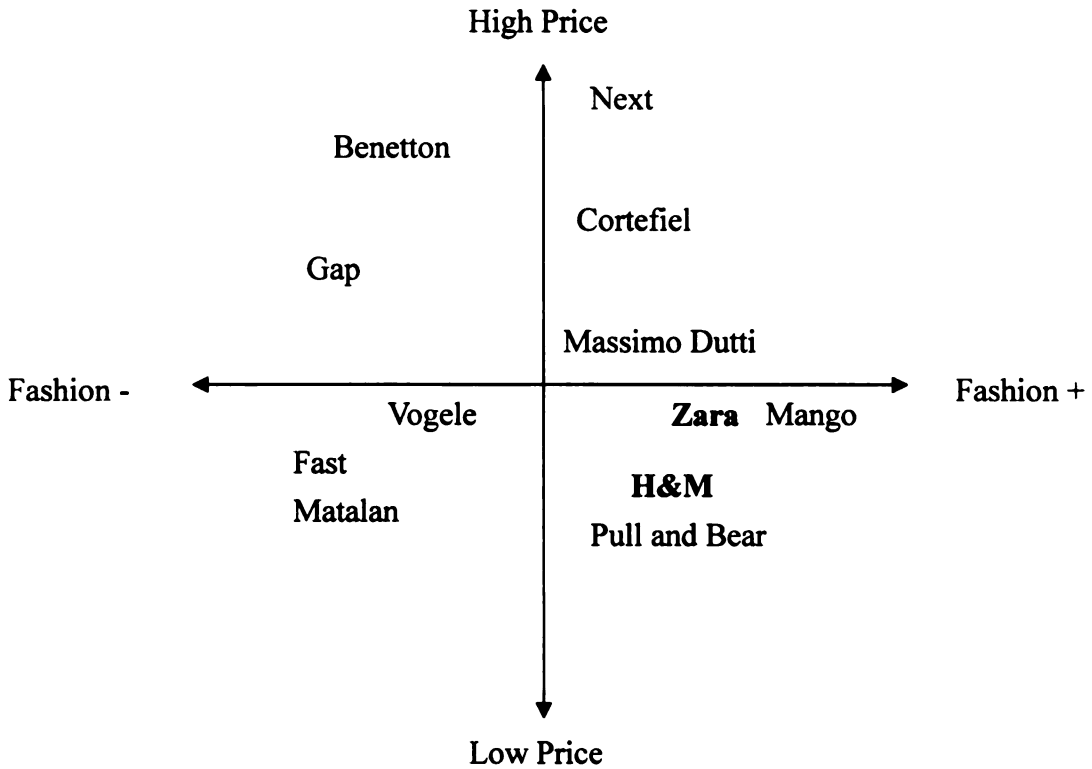
Lastly, the study on hoarding behavior at offline stores can be extended to online hoarding behavior. More fashion retailers whose products were available only offline are opening their online stores to serve their target customers more broadly. In addition to the information regarding the number of products available, frequent introduction of high fashion products at online stores is also expected to encourage hoarding in customers' online shopping baskets. As found in this study, hoarding affected shopping hedonism. The competition for online retailers is mostly price-oriented. Therefore, the application of the model proposed in this study would provide meaningful implications in developing successful online retailing strategy.

To conclude, this study proposes that fast fashion strategy is a new way of building competitive advantages to respond successfully to environmental pressures such as market dynamism in the fashion apparel industry. Continuous investigation of fast fashion strategy by replicating and extending the proposed model guarantees promising future research and its theoretical and strategic contributions to the fashion and relevant retailing industry are expected to continue to grow as long as more people aspire to frequent changes and fashion plays a vital role in our daily life.

APPENDICES

APPENDIX A

Fast Fashion Retailers' Product Positioning



Fast Fashion Retailers' Product Positioning, adopted from Columbia Business School Marketing Cases, 2003.

APPENDIX B.

The comparison of demographic variables between stores

Appendix B-1. The Result of ANOVA: The comparison of Age and Income between stores

		Sum of squares	df	mean	Mean square	F	Sig.
Age	Between Groups	15.748	1	Company A: 3.36 Company B: 2.83	15.748	.798	.373
	Within Groups	4561.291	231		19.746		
	Total	4577.039	232				
Income	Between Groups	1.173	1	Company A: 2.44 Company B: 2.59	1.173	.467	.495
	Within Groups	563.327	224		1.515		
	Total	564.500	225				

Appendix B-2. The Result of Crosstab Analysis: The comparison of education between the stores

		High school or below	Some college	Bachelor degree	Higher degree	Total
Company A	Count	9	20	74	36	139
	Expected Count	6.1	19.4	74.7	38.8	139.0
	% within store location	6.5%	14.4%	53.2%	25.9%	100.0%
	% within Education	90.0%	62.5%	60.2%	56.3%	60.7%
	% of Total	3.9%	8.7%	32.3%	15.7%	60.7%
Company B	Count	1	12	49	28	90
	Expected Count	3.9	12.6	48.3	25.2	90.0
	% within store location	1.1%	13.3%	54.4%	31.1%	100.0%
	% within Education	10.0%	37.5%	39.8%	43.8%	39.3%
	% of Total	.4%	5.2%	21.4%	12.2%	39.3%
Total	Count	10	32	123	64	229
	Expected Count	10.0	32.0	123.0	64.0	229.0
	% within store location	4.4%	14.0%	53.7%	27.9%	100.0%
	% within Education	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	4.4%	14.0%	53.7%	27.9%	100.0%

Chi-Square Result (N=229)

	Value	df	Sig. (2-tailed)
Pearson Chi-Square	4.188	3	.242
Likelihood Ratio	4.936	3	.177
Linear-by-Linear Association	2.657	1	.103

Appendix B-3. The Result of Crosstab Analysis: The comparison of ethnicity between the stores

		African American	Caucasian	Asian	Spanish	Other	Total
Company A	Count	18	65	38	9	8	138
	Expected Count	21.4	54.7	42.8	10.7	8.3	138.0
	% within store location	13.0%	47.1%	27.5%	6.5%	5.8%	100.0%
	% within Ethnicity	50.0%	70.7%	52.8%	50.0%	57.1%	59.5%
	% of Total	7.8%	28.0%	16.4%	3.9%	3.4%	59.5%
Company B	Count	18	27	34	9	6	94
	Expected Count	14.6	37.3	29.2	7.3	5.7	94.0
	% within store location	19.1%	28.7%	36.2%	9.6%	6.4%	100.0%
	% within Ethnicity	50.0%	29.3%	47.2%	50.0%	42.9%	40.5%
	% of Total	7.8%	11.6%	14.7%	3.9%	2.6%	40.5%
Total	Count	36	92	72	18	14	232
	Expected Count	36.0	92.0	72.0	18.0	14.0	232.0
	% within store location	15.5%	39.7%	31.0%	7.8%	6.0%	100.0%
	% within Ethnicity	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	15.5%	39.7%	31.0%	7.8%	6.0%	100.0%

Chi-Square Result (N=232)

	Value	df	Sig. (2-tailed)
Pearson Chi-Square	8.152	4	.086
Likelihood Ratio	8.289	4	.082
Linear-by-Linear Association	.558	1	.455

APPENDIX C.

The Results of Path Analysis

Results of Path Analysis

	Parameters	Standardized Estimates	Standardized Error	T-value	P-value
Structure Model	Gain ← Perishability	0.29	0.133	3.922	0.000
	Gain ← Scarcity	-0.03	0.082	-0.405	0.686
	Loss ← Perishability	0.35	0.107	5.190	0.000
	Loss ← Scarcity	0.32	0.065	5.030	0.000
	Loss ← Gain	0.35	0.058	5.290	0.000
	Hoard ← Gain	0.27	0.060	3.753	0.000
	Hoard ← Loss	0.50	0.076	6.078	0.000
	Hedonism ← Gain	0.43	0.066	5.714	0.000
	Hedonism ← Hoard	0.32	0.080	4.190	0.000
	Purchase ← Hedonism	0.22	0.121	2.643	0.008
	Purchase ← Hoard	0.42	0.138	4.517	0.000
Measurement Model	V4 ← Scarcity	0.77	0.124	8.913	0.000
	V5 ← Scarcity	0.70	0.109	9.511	0.000
	V6 ← Scarcity	0.74	0.114	10.373	0.000
	V7 ← Scarcity	0.70	0.065	14.177	0.000
	V8 ← Scarcity	0.74	-	-	
	V10 ← Perishability	0.70	-	-	0.000
	V11 ← Perishability	0.86	0.126	10.785	0.000
	V12 ← Perishability	0.64	0.114	9.333	0.000
	V13 ← Perishability	0.76	0.085	13.304	0.000
	V14 ← Perishability	0.81	0.114	10.205	0.000
	V15 ← Perishability	0.66	0.107	9.645	0.000
	V19 ← Gain	0.88	0.070	15.312	0.000
	V20 ← Gain	0.78	0.059	13.369	0.000
	V21 ← Gain	0.84	-	-	
	V22 ← Loss	0.74	-	-	
	V23 ← Loss	0.89	0.090	13.599	0.000
	V24 ← Loss	0.77	0.070	15.981	0.000
	V25 ← Loss	0.90	0.094	13.828	0.000
	V26 ← Loss	0.84	0.100	12.852	0.000
	V28 ← Hoarding	0.70	-	-	
	V29 ← Hoarding	0.70	0.097	9.526	0.000
	V30 ← Hoarding	0.70	0.108	9.426	0.000
	V31 ← Hoarding	0.67	0.118	9.168	0.000
	V32 ← Hoarding	0.77	0.112	10.361	0.000
	V33 ← Hoarding	0.79	0.119	10.674	0.000

	Parameters	Standardized Estimates	Standardized Error	T-value	P-value
	V34 ← Hedonism	0.81	-	-	
	V35 ← Hedonism	0.73	0.076	11.683	0.000
	V36 ← Hedonism	0.77	0.084	12.499	0.000
	V43 ← Hedonism	0.74	0.100	9.740	0.000
	V44 ← Hedonism	0.82	0.076	13.566	0.000
	V45 ← Purchase	0.79	0.122	8.255	0.000
	V46 ← Purchase	0.66	0.109	6.723	0.000
	V47 ← Purchase	0.85	-	-	
Covariances	Perishability ↔ Scarcity	0.121	0.057	1.675	0.094
Disturbance Variances	a1	1.541	0.205	7.533	0.000
	a2	0.733	0.121	6.077	0.000
	a3	0.646	0.119	5.412	0.000
	a4	0.732	0.111	6.578	0.000
	a5	1.801	0.327	5.509	0.000
χ^2= 879.136, df=471, p=0.000, χ^2/df=1.86 CFI=.92, NNFI=.91, IFI=.92, RMSEA=.06					

APPENDIX D.

Summary of Hypotheses Tests

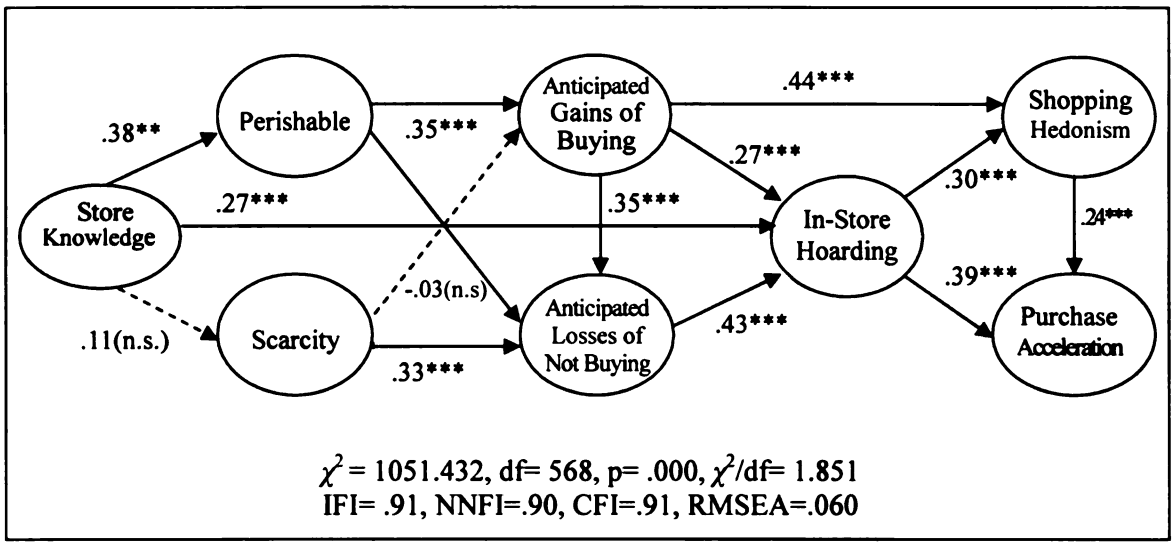
Summary of Hypotheses Tests

H	Hypotheses	Results
H1	The greater the level of perishability, the greater the level of anticipated gains of buying.	Supported
H2	The greater the level of perishability, the greater the level of anticipated losses of not buying.	Supported
H3	The greater the level of scarcity, the greater the level of anticipated gains of buying.	Not supported
H4	The greater the level of scarcity, the greater the level of anticipated losses of not buying.	Supported
H5	The effect of perishability on anticipated losses of not buying will be stronger than on anticipated gains of buying.	Supported
H6	The effect of scarcity on anticipated losses of not buying will be stronger than on anticipated gains of buying.	Not Supported
H7	The greater the level of anticipated gains of buying, the greater the level of in-store hoarding.	Supported
H8	The greater the level of anticipated losses of not buying, the greater the level of in-store hoarding.	Supported
H9	The effect of anticipated losses of not buying on in-store hoarding will be stronger than that of anticipated gains of buying.	Supported
H10	The greater the level of in-store hoarding, the greater the level of shopping hedonism.	Supported
H11	The greater the level of shopping hedonism, the greater the level of purchase acceleration.	Supported
H12	The greater the level of in-store hoarding, the greater the level of purchase acceleration.	Supported
H13	The effect of perishability on anticipated gains of buying will be stronger for innovators than non-innovators.	Supported
H14	The effect of scarcity on anticipated gains of buying will be stronger for innovators than non-innovators.	Not supported
H15	The effect of perishability on anticipated losses of not buying will be stronger for innovators than non-innovators.	Not supported
H16	The effect of scarcity on anticipated losses of not buying will be stronger for innovators than non-innovators.	Not supported
H17	The effect of anticipated gains of buying on in-store hoarding will be stronger for innovators than non-innovators.	Supported
H18	The effect of anticipated losses of not buying on in-store hoarding will be stronger for innovators than non-innovators.	Not supported

APPENDIX E.

The Effect of Prior Store Knowledge

Appendix E-1. The Effect of Prior Store Knowledge



Appendix E-2. Path Analysis for The Effect of Prior Store Knowledge

	Parameters	Standardized Estimates	Standardized Error	T-value	P-value
Structure Model	Perishability ← Knowledge	0.374	0.059	4.805	0.000
	Scarcity ← Knowledge	0.110	0.089	1.488	0.137
	Gain ← Perishability	0.284	0.132	3.902	0.000
	Gain ← Scarcity	-0.029	0.081	-0.404	0.686
	Loss ← Perishability	0.350	0.106	5.227	0.000
	Loss ← Scarcity	0.326	0.065	5.043	0.000
	Loss ← Gain	0.350	0.058	5.300	0.000
	Hoard ← Gain	0.269	0.058	3.836	0.000
	Hoard ← Loss	0.429	0.074	5.548	0.000
	Hoard ← Knowledge	0.272	0.075	4.113	0.000
	Hedonism ← Gain	0.442	0.066	5.846	0.000
	Hedonism ← Hoard	0.303	0.079	4.020	0.000
	Purchase ← Hedonism	0.235	0.120	2.824	0.005
	Purchase ← Hoard	0.393	0.135	4.358	0.000

χ^2 = 1051.432, df= 568, p= .000, χ^2/df= 1.851
IFI= .91, NNFI=.90, CFI=.91, RMSEA=.060

APPENDIX F.

Survey Consent Form

Consent Form

Shopping Experience in a Fashion Apparel Store

This is a survey to understand how consumers shop in a fashion apparel store. This research is funded by College of Communication Arts and Sciences at Michigan State University. Your responses will help us extend the body of knowledge on consumer behavior.

There are no right or wrong answers. We are interested in your shopping experience in fashion stores. Your participation is completely voluntary. Members of the research team will have access to the answers you provide but you personally will not be identified in any published report. Your recorded responses will be stored in a locked cabinet, and coded data will be stored in password protected computers in a locked room. After 10 years, the electronic data and the completed questionnaires will be destroyed.

You may choose not to participate in the study, you may decline to answer specific questions, and you may discontinue participation at any time. All responses will remain confidential.

Once you complete the questionnaire, you will have a chance to win a store gift card or we will (that is, you don't need to pay anything) donate $1 in your name to the National Disaster Relief Fund of American Red Cross. If you choose the gift card option, you will then be entered into a drawing for several sizable gift cards for the store you visited (i.e., five $20 gift cards, two $50 gift cards, and one $100 gift card). However, you must respond to the survey within 48 hours to be eligible. You will be asked to provide your email address at the end of the survey. Your e-mail address will be used only to select the prizewinners or donators and will not be distributed to anyone. The winners will be contacted by e-mail for mailing address information during June 2006. The names of the winners will also be posted on the Website for this survey.

If you have any questions about this study, please contact the principal investigator, Dr. Brenda Sternquist, Professor, 369 Comm Arts Building, Michigan State University, East Lansing, MI 48824; by phone (517) 355-0256; or by email sternqui@msu.edu. You may also contact the secondary investigator, Sang-Eun Byun, Ph.D. candidate, at 362 Comm Arts Building, Michigan State University, East Lansing, MI 48824; by phone (517) 862-0058; or by email byunsan1@msu.edu.

If you have questions or concerns about your rights as a research participant, please feel free to contact Peter Vasilenko, Ph.D., Director of the Human Subject Protection Programs at Michigan State University: (517) 355-2180, email: irb@msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Thank you very much for your time and consideration. If you agree to participate, please go to the next page.

APPENDIX G.

Survey Instrument

Part One

1. In which store did you receive this questionnaire?
   1) H&M 2) Zara 3) Other _____

2. Have you shopped in this store before (including different locations)?
   1) Yes 2) No, this is my first visit to this store.

The following questions refer to your shopping experience **in the store chosen in the question 1**. For each of the following items, please indicate your level of agreement.

On this shopping trip, I found that...	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
3. My favorite items were often one of the last items left on the rack.	1	2	3	4	5	6	7
4. The products that I was interested in were almost out of stock.	1	2	3	4	5	6	7
5. There were only limited number of products per size, style, and color.	1	2	3	4	5	6	7
6. Products of interest were often scarce in my size.	1	2	3	4	5	6	7
7. My favorite styles in this store were mostly available in my size.	1	2	3	4	5	6	7
8. I could mostly get my first preference in my size.	1	2	3	4	5	6	7

For each of the following items, please indicate your level of agreement.

Based on my knowledge or experience...	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
9. This store constantly delivers updated fashion items throughout the season.	1	2	3	4	5	6	7
10. New styles are introduced on a frequent basis.	1	2	3	4	5	6	7
11. This store rapidly turns over their merchandise.	1	2	3	4	5	6	7
12. Products in this store do not stay on the rack long.	1	2	3	4	5	6	7
13. This store introduces new fashion styles quickly.	1	2	3	4	5	6	7
14. Products in this store are fresh in terms of fashion trend.	1	2	3	4	5	6	7
15. Products in this store are moving fast.	1	2	3	4	5	6	7
16. I can mostly find the same merchandise that I saw on my previous store visit.	1	2	3	4	5	6	7

Please circle the number, which best describes your reaction to each statement.

When I found a product of interest in this store, I thought that...	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
17. If I do not buy it right now, I would regret it later.	1	2	3	4	5	6	7
18. I was afraid that this item would be out-of-stock in my next visit.	1	2	3	4	5	6	7
19. I thought that it would be a loss if I do not buy it today.	1	2	3	4	5	6	7
20. I was concerned that this item might not be available if I came back later.	1	2	3	4	5	6	7
21. If I do not get it immediately, I would lose an opportunity to purchase it because it will be gone tomorrow.	1	2	3	4	5	6	7

When I found a product of interest in this store, I thought that acquiring or wearing this product would make me...	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
22. Look unique.	1	2	3	4	5	6	7
23. Look fashionable.	1	2	3	4	5	6	7
24. Enhance my self-image.	1	2	3	4	5	6	7
25. Feel good about myself.	1	2	3	4	5	6	7
26. Feel special.	1	2	3	4	5	6	7

When I found a product of interest in this store, ...	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
27. I spontaneously grabbed the product of interest.	1	2	3	4	5	6	7
28. I had the urge to grab the product immediately.	1	2	3	4	5	6	7
29. I was carrying around products while shopping.	1	2	3	4	5	6	7
30. I snapped things up while shopping in this store.	1	2	3	4	5	6	7
31. Once I picked up a product, I did not want to put it down although I was not sure if I would buy it or not.	1	2	3	4	5	6	7
32. I hurried to grab the products of interest and kept them to myself.	1	2	3	4	5	6	7
33. On this trip, I found a number of things I wanted to grab immediately even though they were not on my shopping list.	1	2	3	4	5	6	7

Part Two

Please circle the number, which best describes your reaction to each statement.

On this shopping trip,	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
34. Shopping at this store was truly a joy.	1	2	3	4	5	6	7
35. I continued to shop, not because I had to, but because I wanted to.	1	2	3	4	5	6	7
36. Shopping at this store truly felt like an escape.	1	2	3	4	5	6	7
37. Compared to other things I could have done, the time spent shopping at this store was truly enjoyable.	1	2	3	4	5	6	7
38. I enjoyed being immersed in exciting new products.	1	2	3	4	5	6	7
39. I enjoyed shopping at this store for its own sake, not just for the items I may have purchased.	1	2	3	4	5	6	7
40. I enjoyed a time because I was able to act on the "spur-of-the-moment."	1	2	3	4	5	6	7
41. During a shopping trip I feel the excitement of hunt.	1	2	3	4	5	6	7
42. While shopping at this store, I was able to forget my problems.	1	2	3	4	5	6	7
43. While shopping at this store, I felt a sense of adventure.	1	2	3	4	5	6	7
44. Shopping at this store was a very nice time out.	1	2	3	4	5	6	7

Please circle the number, which best describes your reaction to each statement.

For the products of interest I found in this store,	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
45. I purchased an item that I had not planned to purchase on this trip.	1	2	3	4	5	6	7
46. I purchased more products than I would do normally on this shopping strip.	1	2	3	4	5	6	7
47. I made a purchase decision immediately rather than postponing until next visit to this store.	1	2	3	4	5	6	7

***Before* today's visit to this store...**	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
48. I knew pretty much about this store.	1	2	3	4	5	6	7
49. I did not feel very knowledgeable about this store.	1	2	3	4	5	6	7
50. Among my circle of friends, I was one of the "experts" about this store.	1	2	3	4	5	6	7
51. Compared to most other people, I knew less about this store.	1	2	3	4	5	6	7
52. When it comes to this store, I really did not know a lot.	1	2	3	4	5	6	7

Part Three

Considering your general buying behavior, please respond to the following statements by circling the number that best represents your degree of agreement or disagreement. Your responses should reflect your feelings toward **apparel shopping**.

I think...	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
53. In general, I am among the last in my circle of friends to buy a new fashion item when it appears.	1	2	3	4	5	6	7
54. If I heard that a new fashion style was available in the store, I would be interested enough to buy it.	1	2	3	4	5	6	7
55. Compared to my friends, I own few new fashion items.	1	2	3	4	5	6	7
56. I would consider buying a new fashion item, even if I have not heard of it yet.	1	2	3	4	5	6	7
57. In general, I am the last in my circle of friends to know the latest fashion trends.	1	2	3	4	5	6	7
58. I know more about new fashion than other people do.	1	2	3	4	5	6	7

Part Four

Finally, please fill in the blank or check the appropriate response for each question.

Do you currently live in New York? ( ) Yes ( ) No

If your answer is no, where do you live?

City:_____ State: _____Country:_____

Are you

( ) 1. African American ( ) 2. Caucasian

( ) 3. Asian ( ) 4. Pacific Islander

( ) 5. Native American or Alaskan native ( ) 6. Spanish, Hispanic or Latino origin

Other: _____

What is your age group?

1. under 20: _____years old
2. 20-24
3. 25-29
4. 30-34
5. 35-39
6. 40 or over: _____years old

Your degree currently pursued or your highest level of education if you are not currently in school:

( ) 1. Less than high school ( ) 2. High school or equivalent

( ) 3. Some college ( ) 4. Bachelor's degree

( ) 5. Master's degree ( ) 6. Doctoral degree

What is your total annual income?

( ) a. Under $20,000

( ) b. $20,000 to $34,999

( ) c. $35,000 to $49,999

( ) d. $50,000 to $64,999

( ) e. $65,000 to $79,999

( ) f. $80,000 to $99,999

( ) g. $100,000 more

Now that the survey is completed, please select which option you prefer.

( ) 1. Gift card option: You will be entered into a drawing. Please provide your email address.

E-mail address:_____@_____

( ) 2. Donation option: I will donate $1 in your name to the National Disaster Relief fund of American Red Cross. Please provide your name and your email address.

Name (*optional*):

E-mail address:_____@_____

Your name and your E-mail address will not be distributed to anyone. The winners and donators will be contacted by e-mail during June 2006. Based on your agreement, the names will be posted on the Website at www.msu.edu/~byunsan1.

Thank you for taking time to respond to this questionnaire.

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