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The Psychological Effects of Perceived Scarcity on Consumers' Buying Behavior

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THE PSYCHOLOGICAL EFFECTS OF PERCEIVED SCARCITY ON CONSUMERS' BUYING BEHAVIOR

by

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This research seeks to provide an understanding of consumers' psychological responses to the scarcity environments that are strategically created by retailers. A mixed method design provides both qualitative and statistical understanding of this phenomenon. The findings across four studies define a new construct that captures consumers' understanding of the product shortage that is strategically created by the retailer, differentiates it from scarcity situations where the retailer does not necessary limit the supply of the product, and suggests that consumers react differently in the varied conditions. The study suggests that strategically controlled environments, by creating product uncertainty, are able to motivate behaviors such as urgency to buy. It is further suggested that urgency to buy is mediated by emotions like anticipated regret that these retailers are able to successfully generate in the mind of the consumer. Further, scarcity communicated by the retailer threatens consumers' freedom, thus triggering psychological reactance and encouraging them to take immediate actions like in–store hoarding and in–store hiding, to safeguard their behavioral freedom. The study also takes into account individual traits like competitiveness, hedonic shopping motivations, and need for uniqueness, and examines their influence on consumers' behavioral responses. The results suggest that consumers high on these traits are more likely to exhibit competitive and deviant behaviors like in–store hoarding and in–store hiding. Also, the

role of gender is examined and it is suggested that, unlike their stereotypical apparel buying behaviors, males with high hedonic shopping motivations are more likely to exhibit behaviors like in–store hoarding and in–store hiding. By examining consumers' psychological and behavioral responses to human–induced scarcity conditions, this research seeks to make theoretical contribution to the scarcity literature. From a methodological stand point, this research contributes to the consumer and retail literature by defining and operationalizing constructs like perceived scarcity, urgency to buy, and in–store hiding.

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CHAPTER 1

INTRODUCTION

Constraining the opportunity to own or experience an object signals product scarcity. In general, it is of two types – exogenously or environmentally-induced and endogenously or human-induced (Oses-Eraso, Udina, and Viladrich-Grau 2008). Both signify a loss of freedom and, to negate this loss, people tend to desire products on which such limitations are placed. This loss also influences the perceived value and desirability of those objects, thus impacting consumers' choices (Lynn 1991). For example, gold, an environmentally-induced scarce product, is precious because of its limited occurrence in nature. Similarly, human-induced scarcities have been part of marketing folklore for a long period of time. Sony PlayStation 2, when launched in 2000, was considered one of the hottest consumer electronics available (Retailing Today 2000). This was partly due to its functionality, but even more so because of a conscious strategy adopted by Sony that deliberately used product scarcity as a marketing tool. The example of Sony's PlayStation 2 does not stand alone. Nintendo's Game Boy cartridges adopted a similar strategically imposed scarcity and thus caused a buying frenzy among consumers (The Wall Street Journal 1989). A similar phenomenon can be well observed with fast fashion retailers like Zara, H&M, and Forever 21, who by adopting endogenous scarcities, have taken the fashion retail industry by storm. However, despite the success and growth of these brands, marketing literature has largely ignored explaining consumers' psychological and behavioral responses to these conditions of human-induced scarcities. Researchers (Byun and Sternquist 2008) have tried to provide an initial understanding of

consumer behavior in the fast fashion environment; however, an in–depth understanding of this phenomenon is still absent from the extant literature.

In general, the literature on consumer behavior has treated scarcity as an attribute from which a consumer infers other attributes such as price (Lynn and Bogert 1996) or uniqueness (Synder and Fromkin 1980). Further, marketing research has repeatedly found that scarcity affects consumers' perceptions of goods by enhancing attractiveness and desirability (Lynn 1991). Research on scarcity messages has often indicated that scarcity messages, when used in marketing communications and promotions, have a positive effect on the evaluation of and attitude toward the scarce object (Bozzolo and Brook 1992; Brannon and Brock 2001; Campo, Grijsbrechts, and Nisol 2004; Inman, Peter, and Raghubir 1997; Swami and Khairnar 2003). However, though previous studies have generally examined consumers' attitudes towards scarce products, they have largely failed to explain their feelings or reactions to human–controlled scarce environments (Nichols 2012). Questions like how do consumers react to conditions of human–induced scarcity still remain unanswered in the marketing literature.

Further, in retailing, human–induced scarcity can be generated due to forces of supply and demand. A "supply side scarcity" can arise when the retailer deliberately controls the supply of the product in the marketplace, i.e. supply is limited intentionally. On the other hand, in a "demand side scarcity," the retailer does not limit the supply of the product but the scarcity arises due to factors like high demand for the product thus leading to stock depletion, i.e., demand exceeding supply. Both are forms of human–induced scarcity but their origins are different, as one is controlled by the marketer and the other is controlled by the consumer. The aim of this study is to analyze the

psychological role played by the perception that a particular good is scarce and that this scarcity is intentionally created by the marketer. In other words, the main purpose of this study is to answer the question that "how do consumers react to the unique scarcity environments that are strategically created by the marketers?"

Although, scarcity issues affect consumers globally in a major way, the developed world for the most part faces over-abundance, making the study of scarcity processes difficult in Western contexts. However, this research through the context of fast fashion allows the study of scarcity processes and consumers' responses to the conditions of scarcities strategically created by marketers. Fast–fashion retailers are known to reproduce designs from catwalk to stores in the fastest time to capture current trends in the market. These retailers are often associated with disposable fashion because they are able to deliver designer products to a mass market at a relatively low price. Also, these retailers do not use explicit signs in their retail stores to promote sales but implicitly signal their target customers with scarcity messages like *buy now or you won't get it tomorrow* (Barnes and Lea-Greenwood 2010; Byun and Sternquist 2008). One of the important characteristic of these fast-fashion retailers is that they adopt agile supply chains which mean that their supply chains are vertically integrated and rely on information sharing across all supply chain partners (Christopher, Lowson, and Peck 2004). Due to their responsive supply chains, these fast-fashion retailers are able to adopt 'fast-fashion strategies' which are defined as "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" (Byun and Sternquist 2008, p. 135; Ton, Corsi, and Dessain 2010). Along with short renewal cycles, they stock limited quantities of products

per style and deliberately manipulate merchandise on the retail floor. Thus, these retailers intentionally create retail situations which communicate to the consumers that the displayed goods on their store shelf are scarce, i.e., these retailers are able to create supply–side scarcity. Though clothing in general is not a scarce commodity, these retailers through different marketing strategies are able to control their supply and thus are successful in creating a belief that within their stores, normal goods like clothes have a scarcity attribute and thus are a very limited resource for the consumer. These retailers, by deliberately manipulating availability, are able to create a psychological pressure on the consumer that sustains the perception of scarcity as the consumer infers the scarce good should possess some inner intangible property. Overall, these strategies adopted by fast fashion retailers are an extreme case of scarcity environments that are strategically created by marketers and thus provide an appropriate context for investigation as it allows us to examine the effects of scarcity in greater detail.

Social psychology literature provides two prominent theories related to scarcity, reactance theory (Brehm 1966; Clee and Wicklund 1980) and commodity theory (Lynn 1991), that help in understanding consumers' psychological reactions to scarcity conditions. In general, behavioral researchers suggest reactance theory to be a better theory in explaining consumer decision making under the conditions of scarcity. As per reactance theory, when consumer freedom is threatened or coerced, s/he strives to repeal the threat/coercion by establishing a psychological defense mechanism of resistance (reactance), which is a motivational state directed toward safeguarding a person's behavioral freedom. This reactance may be triggered by events such as scarcity that impede a perceived freedom of choice, and motivate behaviors like sense of urgency and

hoarding, in which people may react quickly and at time illogically to perceived shortage in order to restore the lost freedom (Brehm 1966). Reactance theory by suggesting how scarcity may lead to behaviors like urgency and hoarding provides support to study variables like urgency to buy, in–store hoarding, and in–store hiding in the current context. In–store hoarding and in–store hiding behaviors exhibit strong desires of possessiveness that are generated due to the fear of scarcity. Further, in qualitative interviews, these variables emerged as prominent themes, thus supporting our choice of variables.

Most research in consumer behavior has focused on how cognitive factors influence decision making, but recently a growing body of research has emphasized the importance of emotions in decision making. Research examining the relationship between emotion and decision making has focused on emotions like anticipated regret (Bell 1982; Loewenstein *et al*. 2001; Loomes and Sugden 1982). Swain, Hanna, and Abendroth (2006) studied the mediating role of 'anticipated regret' and suggested that scarcity messages (for example, time restricted promotional messages) affect consumers' purchase intentions by affecting not only the perceived economic outcomes, but also the emotional outcomes. However, a clear understanding of how anticipated regret influences consumer decision making under the conditions of scarcity deliberately controlled by the marketer is still absent from the literature.

Besides cognitive and emotional factors, the psychology literature stipulates that certain traits help to characterize differences among individuals (Angst, Agarwal, and Kuruzovich 2008). A literature review reveals that trait competitiveness and hedonic need fulfillment are key individual differences related to shopping behavior that may

influence consumer decision making. The trait of competitiveness has been defined as "the enjoyment of the interpersonal competition and the desire to win and be better than others" (Spence and Helmreich 1983, p. 41). Competitiveness is said to lead to strange behaviors and is suggested to impact behavior in the context of conspicuous consumption of products and services like the purchase of innovative, new automobiles, and the latest electronic equipment (Mowen 2004). However, the role that competitiveness plays on consumer decision making under the conditions of strategically imposed scarcity is virtually absent. The need to examine the role of competitiveness becomes extremely important in conditions of scarcity because literature associates scarcity with competition and suggests that successfully obtaining something scarce signifies one winning the competition (Knowles and Linn 2004; Nichols 2012), thus suggesting that competitiveness might play an important role in consumer decision making under conditions of scarcity.

Further, as mentioned above, hedonic shopping motivation is considered a pertinent human trait when studying consumers' decision making in buying environments (Babin, Darden, and Griffin 1994). Research suggests that the consumer derives hedonic pleasure from an interaction with a store environment (for example, the store's music, temperature, colors, smells, and/or interior architecture), product, or from promotional or marketing activities (Sweeney and Soutar 2001). However, how consumers with different hedonic shopping motivations react to a strategically controlled retail environment still remains unanswered in the marketing literature.

Prior literature on scarcity also recognizes an interaction between scarcity and need for uniqueness and suggests that people having a social desire to maintain a sense of

uniqueness are more likely to acquire scarce products (Snyder and Fromklin 1980). Yet, how this interaction influences behaviors like urgency to buy, in–store hoarding, and in–store hiding is still unknown.

Also, the influence of endogenous scarcity across males and females has received almost no attention in the retailing literature. Comparing shopping behavior across gender is an important market segmentation approach and researchers, in general, have found differences between males and females in their shopping behaviors. For example, females as compared to males view the shopping process as a leisure activity and an escape, and thus spend more time shopping. Males, on the other hand, when shopping are characterized by a lack of patience and a desire to finish the shopping activity as soon as possible (Grewal *et al.* 2003; Noble *et al.* 2006). However, questions such as 'how males and females react to the conditions of scarcity' still needs to be investigated.

Thus based on the above gaps in the literature, this research intends to answer the following research questions:

RQ1: How do consumers react to the conditions of scarcity that are strategically created by a retailer?

RQ2: Do consumers react differently to the conditions of scarcity that are not strategically created by a retailer?

RQ3: What psychological variables influence decision making under the different conditions of scarcity?

RQ4: Does gender influence decision making under the different conditions of scarcity?

Contributions

By examining how strategically imposed scarcity environments influence consumer buying behavior, this research intends to broadly contribute to the literature on scarcity. Previous studies have generally examined consumers' attitudes towards scarce products but have failed to explain their feelings or reactions to unique scarcity environments that are strategically created by marketers. By examining how deliberate product scarcity influences the consumers' psychological and behavioral responses, this research tries to address this gap. Further, by examining the role of anticipated regret on decision making, this research contributes to the understanding of how emotions influence decision making under conditions of scarcity. By examining the role of human–traits, this research contributes to the literature by proposing that the desire to win and be better than others and/or the desire to derive pleasure and satisfaction may influence consumer decision making in situations of scarcity strategically created by the marketer. Further, by examining differences in males' and females' choice behaviors and shopping processes from the same environmental stimuli, this study intends to make a significant contribution to the literature on shopping behavior across genders.

From a methodological stand point, this research intends to contribute to the consumer and retail literature by defining, and operationalizing, constructs like "perceived scarcity," "urgency to buy," and "in–store hiding." The current study suggests that consumers in these strategically-imposed environments create a feeling of perceived scarcity in their minds, which is defined as a perception of product shortage experienced by the consumer for a particular style or size that is strategically created by the retailer. This perception of scarcity is linked to the belief that, in a given moment in time and in a

specific place, a given good is scarce and the scarcity has been intentionally created by the marketer. The current study further suggests this perceived scarcity, created by strategically–imposed environments, is different from the perception created due to a scarce situation, not necessary strategically created by the retailer, and both lead to different consumer behaviors.

The current study suggests that consumers in these strategically-imposed environments create a sense of perceived scarcity and thus exhibit urgency to buy, which further leads to deviant and competitive behaviors like in-store hoarding and in-store hiding. Urgency to buy is defined as an urge or a desire of the consumer to buy the product right away, thus limiting consumers' freedom to delay buying decisions. Consumer literature suggests urgency to buy is a *felt* state of desire that precedes impulse buying behavior (Beatty and Ferrell 1998); however, until now no attention has been given to define or operationalize this construct. In–store hiding, on the other hand, is defined as consumer's intentional act of removing the desired product from other consumers' sight and, hence, is a functional way to increase the odds of buying the desired item later. In the marketing literature, hiding behavior has been sparsely examined except in the context of thrift shopping (Bardhi and Arnould 2005). The current study explores the phenomenon of in–store hiding in great detail and further operationalizes it as a construct.

Managerially, this research presents important insights to retailers. Given that fashion retailers face intense competition in the marketplace, this research presents insights into how, by manipulating product availability within a retail setting, retailers may influence consumer shopping patterns. The study further suggests that retailers

should also be cognizant of some deviant and competitive consumer behaviors like in-store hoarding and in-store hiding. The results of this study suggest that behaviors like in-store hiding could be detrimental for the store's financial performance, as hiding a product inhibits its sale. The study further provides different managerial solutions to prevent such competitive and deviant behaviors.

Based on the above research questions, this dissertation is outlined as follows. In Chapter 2, I review the relevant literature on scarcity, urgency to buy, anticipated regret, in-store hoarding, in–store hiding, competitiveness, hedonic shopping motivation, need for uniqueness, and shopping behaviors across genders to develop a theoretical framework that examines how strategically imposed scarcity environments influence consumer buying behavior. In Chapter 3, I discuss the data collection procedures in detail and present the data collection methodologies used for study 1, study 2, study 3, and study 4. In Chapter 4, I discuss the various analyses conducted for the four studies along with some key findings. The dissertation concludes with Chapter 5, where I discuss key findings and their implications.

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

In this chapter, based on the order of the research questions, the literature on scarcity and different theories related to scarcity will be reviewed first. Next, literature on urgency to buy, in–store hoarding, and in–store hiding will be reviewed and relevant hypotheses will be proposed to examine the influence of "perceived scarcity" on consumer buying behavior. One reason for reviewing literature on scarcity, urgency to buy, in-store hoarding, and in–store hiding comes from themes that emerged from qualitative interviews which will also be discussed in the later chapters. As suggested above, one of the research questions is to examine the role of anticipated regret in influencing consumer behavior under the conditions of scarcity deliberately manipulated by the retailer, thus providing motivation to review the literature on anticipated regret to propose its mediating role on the relationship between perceived scarcity and urgency to buy. Also, literature on competitiveness, hedonic shopping motivation, and need for uniqueness will be reviewed to examine the moderating roles of these traits on the relationships between perceived scarcity and urgency to buy, perceived scarcity and in–store hoarding behavior, and perceived scarcity and in–store hiding behaviors. Finally, literature on shopping behaviors across genders will be reviewed and hypotheses on the role of gender on consumer buying behaviors will be developed.

Scarcity

Scarcity is a dominant aspect of economic behavior (Verhallen and Robben 2004). In general, it is of two types – exogenously or environmentally-induced and endogenously or human-induced (Oses-Eraso, Udina, and Viladrich-Grau 2008). Both

signify a loss of freedom and, to negate this loss, people tend to desire products on which such limitations are placed. Scarcity, irrespective of whether it is exogenous or endogenous, enhances the perceived value of products and opportunities, thus resulting in higher product desirability, increased quantities purchased, shorter searches, and greater satisfaction with the purchased product (Aggarwal, Yun, and Huh 2011; Lynn 1991). As suggested, scarcity has a positive effect on preferences, but it tends to influence preferences only when consumers believe that market forces (i.e., forces related to demand and supply) create scarcity (Verhallen and Robben 1994). When consumers believe that scarcity is created accidentally or by non-market forces such as a missed order or failed delivery, then scarcity effects on preferences are not found. In a retail environment, human–induced scarcity can be further generated due to forces of supply and demand. A "supply side scarcity" can arise when the retailer deliberately controls the supply of the product in the marketplace, i.e. supply is limited intentionally. On the other hand, in a "demand side scarcity," the retailer does not limit the supply of the product but the scarcity arises due to factors like high demand for the product thus leading to stock depletion, i.e., demand exceeding supply. Both are forms of human–induced scarcity but their origins are different, as one is controlled by the marketer and other is controlled by the consumer.

There are two different ways a retailer can communicate the scarcity of a commodity in the marketplace: limited-time scarcity and limited-quantity scarcity (Cialdini 2008). Under limited-time scarcity (LTS), the offer is made available for a particular period of time, after which the offer becomes unavailable (e.g., "Sale ends this Friday"). Thus the degree of scarcity increases with the course of time. However, in a

limited-quantity scarcity (LQS), the promotional offer is made available for a particular quantity of the product and the degree of scarcity increases with each unit sold (e.g., "Only 100 units available at this price"). Furthermore, quantitative scarcity can arise due to changes in supply or demand, whereas scarcity due to limitation in time can only be due to the supply side (Gierl, Plantsch, and Schweidler 2008). Quantitative scarcity due to supply constitutes itself as a limitation of the available units on the part of the retailer. The classical application of this type is the "limited edition" in which the retailer sets the market quantity and the relevant product is not available after the item sells out.

LTS is different from LQS because in LTS, a consumer does not compete against other consumers. As LTS implies that the deal will be there for a particular period of time, the consumer simply has to meet the deadline set by the seller in order to take advantage of the promotional offer (Aggarwal, Jun, and Huh 2011). In contrast, an LQS offer is restricted to a set number of units. Every time an individual purchases a unit, the remaining number of units available for purchase decreases, thus creating a sense of uncertainty. The uncertainty makes an LQS offer seem more restricted and makes it more special, thus amplifying the value of the offer (Bolton and Reed 2004). LQS messages thus motivate consumers to compete with one another for the limited number of items available for purchase. Being able to own scarce items creates among buyers a sense of being "smart shoppers" (Babakus, Tat, and Cunningham 1988). Thus, obtaining the scarce item becomes more like winning a bargain (Bawa and Shoemaker 1987), which provides both utilitarian as well as hedonic fulfillment, and buyers tend to have "pride-like satisfaction" of having won the game against other consumers (Garretson and Burton 2003). Another reason LQS is more effective than LTS is due to the locus of causality

(Meyer 1980). The locus of causality is considered to be internal if one can attribute a phenomenon to factors located within oneself and external if those factors lie outside the individual. Studies suggest that consumers experience more positive feelings if a discount is attributed to internal factors. As LQS is based on a first-come-first-serve basis, consumers benefitting from LQS promotion thus credit themselves for the savings. In case of LTS, the opportunity to take such personal credit is limited, thus making LQS more effective than LTS.

The effects of scarcity have largely been examined in the context of advertising messages. Inman, Peter, and Raghubir (1997) and Suri, Kohli, and Monroe (2007) demonstrate that the presence of scarcity in messages actually enhances consumers' thoughtful analyses. The findings in both the studies suggest that individuals are more motivated to process messages which have scarcity appeals connected to them. Studies also suggest that scarcity messages not only increase the choice of a good, but also increase the willingness to pay (Mittone and Savadori 2009). Swain, Hanna, and Abendroth (2006) studied the influence of promotional restrictions, especially time restrictions, in influencing consumer purchase intentions. Their findings predict that time restrictions lower purchase intentions by lowering deal evaluations but also suggest that time restrictions increase purchase intentions by creating a sense of urgency and anticipated regret. Eisend (2008) examined the influence of scarcity appeals in mass media and suggested the role of a "third-person effect" in enhancing value perceptions and, subsequently, purchase intentions. The study suggests that people, when exposed to scarce product announcements, take into consideration both the perceived influence of self and the perceived influence on others. Further, Aggarwal, Jun, and Huh (2011)

examined the relative effectiveness of LTS and LQS appeals in advertisements and the role of brand concept in the relationship between scarcity and purchase intentions. The most significant finding of the study is the differential impact of different types of scarcity messages on consumer purchase intentions, with LQS being more effective than LTS. The study also supports the interaction between scarcity messages and brand concept and suggests that restricted offers will affect purchase intentions more for a symbolic brand than for a functional brand. Last, the effects of scarcity messages have also been examined across cultures (Jung and Kellaris 2004). Their findings from a shopping simulation experiment show a positive effect of scarcity on purchase intentions among the participants from a low-context culture as compared to participants from a high-context culture. The study also suggests that the effect of scarcity across cultures is further moderated by product familiarity, uncertainty avoidance, and need for cognitive closures.

Recently, research has examined the impact of scarcity in retail environments. For example, the influence of product scarcity as communicated by empty shelf space in retail stores was examined by Parker and Lehmann (2011) and Van Herpen, Pieters, and Zeelenberg (2009). These studies suggest that shelf-based scarcity in the form of relative stocking level depletion significantly affects consumer attitudes and thus promotes increased sales. Nichols (2012) suggests scarcity to be an important antecedent for consumer competitive arousal, where consumers compete to strive against others and thus make their choices accordingly. However, work on what different types of “consumer buying behaviors” may emerge due to deliberate manipulation of product scarcity within a retail setting is still absent in the literature and thus a motivation to conduct this study.

The current study suggests that fast–fashion retailers, by creating supply side scarcity, are able to strategically induce scarcity within their retail stores, which creates a perception of "perceived scarcity" in the minds of the consumers. Perceived scarcity is defined as the perception of product shortage experienced by the consumer for a particular style or size that is strategically created by the retailer. This perception of scarcity is linked to the belief that, in a given moment in time and in a specific place, a given good is scarce and the scarcity has been intentionally created by the marketer. Product availability is deliberately restricted or manipulated by inducing quantity constraints such as limiting product quantity per style, thus communicating "limited quantity messages" to the consumers. Further, in order to keep their merchandise fresh and perishable, these retailers deliberately adopt strategies to reduce product (shelf) life by introducing new and upgraded products weekly (e.g., new style, design, color, etc.; Dutta 2002), continuous shuffling of merchandise within and across stores, and rarely restocking or reselling the merchandise once sold, thus communicating "limited time messages" to the consumer. Thus, these retailers deliberately communicate product scarcity to the consumer by adopting both time (product is replaced by new items) and quantity (limited number of products) limitations in their retail settings. For example, Zara stores besides stocking limited quantities of products per style on the retail floor, differentiate between major sizes (e.g. S, M, L) and minor sizes (e.g. XXS, XXL) and, upon realizing that the store has run out of one of the major sizes for a specific style, move all of the remaining inventory of that style from the retail floor, thus creating a perception of perceived scarcity in the consumer's mind (Ton, Corsi, and Dessain 2010).

Theories Related to Scarcity

Over the last four decades, two different theories related to scarcity have been studied in social psychology: reactance theory (Brehm 1966; Brehm and Brehn 1981; Clee and Wicklund 1980; Wicklund 1974) and commodity theory (Brock 1968; Lynn 1991). Reactance theory proposes that when an individual experiences a threat to his freedom, s/he experiences psychological reactance, a motivational state directed toward the reestablishment of free behavior. On the other hand, commodity theory views a scarce product as a unique or valuable product to possess.

We will review both these theories in the sections below to understand better the factors that influence consumer choice under conditions of product unavailability.

Commodity Theory

Commodity theory has been used to explain the psychological effects of scarcity. This theory claims that any commodity will be valued to the extent that it is unavailable (Brock 1968; Lynn 1991). Commodity theory argues that individuals evaluate a product as more attractive when it is scarce rather than abundant. Through the lens of commodity theory, much research has tested the following four relationships: a product will be more attractive (1) when the number of suppliers is small, (2) when a restriction on availability is imposed by the seller, (3) when a consumer has to wait to attain the product, and (4) when the consumer has to make an extra effort to obtain the product (Bozzolo and Brock 1992; Brock 1968; Brock and Mazzocco 2003; Lynn and Harris 1997). Commodity theory further suggests that scarcity effects apparently depend on the following three conditions: (1) commodities must be useful and desirable, (2) they must be transferable from one person to another, and (3) they must have the potential to be possessed.

Overall, commodity theory provides an initial understanding of the scarcity effect and consumers' reactions to scarce goods, but fails to clarify the behavioral mechanism that underlies this motivational process (Verhallen 1982; Worchel 1992). A notable difference between commodity and reactance theory is the focus on variables, such as the degree of expected freedom that impacts the individuals' response to the choice constraint. Thus, behavioral researchers suggest a dominance of reactance theory over commodity theory in explaining the consumer's decision making process under the conditions of product unavailability (Clee and Wicklund 1980). In the current study, we attempt to understand the consumers' reactions to conditions of product unavailability through the lens of reactance theory.

Reactance Theory

Reactance theory focuses on an individual's reaction to the loss of perceived freedom. According to reactance theory, if an individual's freedom is threatened or eliminated, s/he experiences psychological reactance, which is a motivational state directed toward safeguarding a person's behavioral freedom (Brehm 1966; Clee and Wicklund 1980; Wicklund 1974). This motivation leads to an intensified desire to accomplish the restricted behavior and simultaneously increases its perceived attractiveness (Brehm and Brehm 1981). Hence, a product's limited availability or perceived scarcity can connote a threat or loss of personal freedom and therefore, may trigger psychological reactance that leads to increased attention, attraction to the unavailable good, and ultimately, increased consumer motivation to obtain the alternative that is no longer accessible (Ditto and Jemmott 1989; Markus and Schwartz 2010; Worchel and Brehm 1971). Thus, in a situation where an individual can select between

Alternative A and Alternative B and that the person is told to pick Alternative B (threatening the freedom to choose Alternative A), the individual is more likely to choose Alternative A in order to restore the freedom to have it, and hence Alternative A becomes more desirable (Brehm and Sensenig 1966; Crawford *et al.* 2002).

But reactance to the threatened behavior may also occur in a different way and consumers may actually react negatively to product unavailability (Hannah et al. 1975; Min 2003; Stiller 2011; Worchel and Brehm 1971). Min (2003) suggests that when consumers encounter a threat of an unavailable product, they experience negative feelings that motivate them to move in the opposite direction than what is implied by the threat. Hence, when consumers feel the pressure to select a similar alternative that is inaccessible, they get motivated to avoid the similar alternative and rather select a dissimilar alternative in an effort to assert their freedom to choose (i.e., a boomerang effect). Further, Stiller (2011) suggests that reactance arousal leads to consumers' variety seeking behavior, which serves as an indirect means to regain freedom.

Urgency to Buy

In general, scarcity seems to create a sense of urgency among consumers (Aggarwal, Jun, and Huh 2011). This sense of urgency is more evident when there are limited time windows to purchase limited product, and thus consumers tend to create "urgency to buy" in their minds. We define "urgency to buy" as a desire of the consumer to buy the product right away, thus limiting consumers' freedom to delay buying decisions. Other researchers define sense of urgency as a felt need to initiate and complete an act in an immediate or near future (Swain, Hanna, and Abendroth 2006). The felt urge to buy derives from Rook's focus on the sudden and spontaneous urge to buy

something (Rook 1987). As per Beatty and Ferrell (1998), urgency to buy is a state of desire that precedes the actual impulse action and is experienced upon encountering an object in the environment. Hoch and Loewenstein (1991) suggest that such desires and decisions to buy the product may result from a shift in an individual's reference point caused by being physically close to product. Hence, an individual exhibiting an urge to buy is not likely to postpone the purchase to gather more information, indulge in comparison shopping, and seek advice.

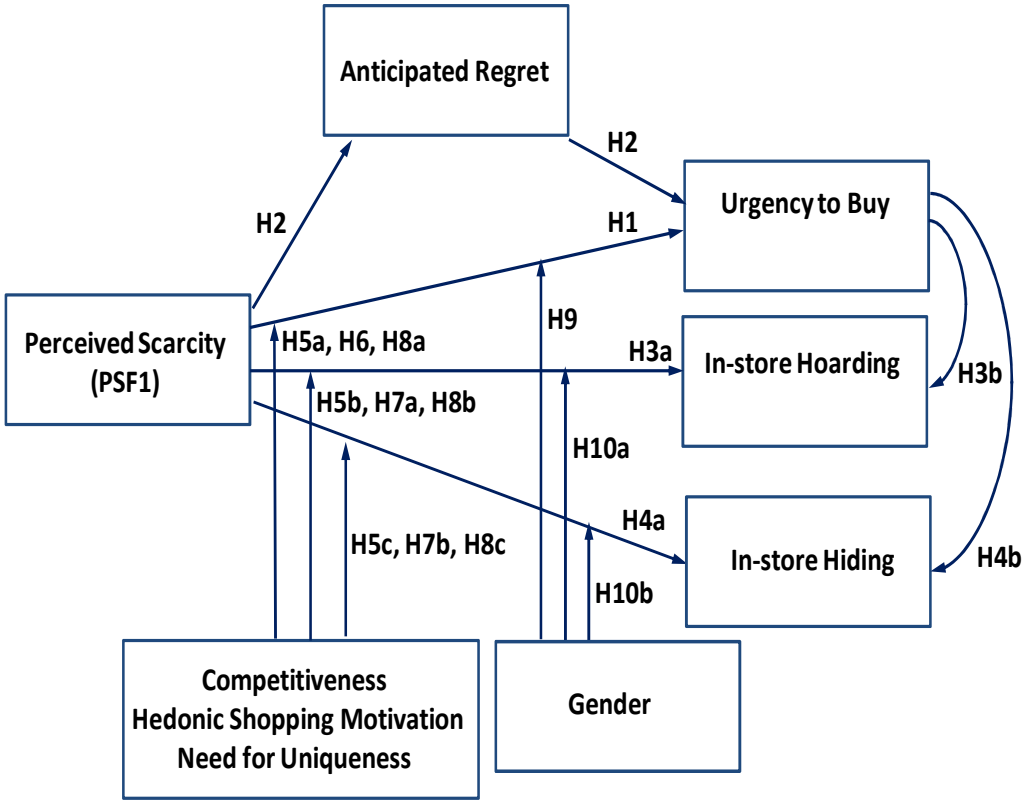
Both internal cues and external cues can trigger the urge to buy a product (Wansink 1994; Youn and Faber 2000). Internal cues refer to consumers' self-feelings, moods, and emotional states whereas external cues involve retailer-controlled environmental and sensory factors. Studies suggest that atmospheric cues in the retail environment (for example, sights, sounds, and smells) are important external triggers that influence consumers' urge to buy (Eroglu and Machleit 1993; Mitchell 1994). Additionally, marketing mix cues such as point-of-purchase, displays, promotions, and advertisements can also affect the desire of the consumer to buy the product right away.

The current study suggests that external cues like 'strategically imposed scarcity environments' created by the retailer, create a perception of scarcity in the mind of the consumer thus threatening his/her freedom to delay buying decisions. Retailers by adopting fast-fashion strategies and deliberately manipulating product availability within their stores communicate signals like *buy now or you won't get it tomorrow,* which threatens consumers' freedom to delay a buying decision, thus triggering psychological reactance and encouraging them to take immediate actions to safeguard their behavioral freedom. Consumers thus create a sense of urgency and a desire in their mind to buy the

product immediately, hence limiting their freedom to delay a buying decision (see figure 1.1). Thus, we propose,

H1: In retail stores with strategically imposed scarcity environments, perceived scarcity will lead to higher urgency to buy among consumers.

Figure 1.1
Proposed Model



The above model examines the relationships between perceived scarcity and urgency to buy, in–store hoarding, and in–store hiding. The mediating role of anticipated regret is also proposed along with the moderating role of competitiveness, hedonic shopping motivations, and need for uniqueness. Also, the role of gender in influencing

decision making under scarcity conditions is examined. The reasons for studying these specific relationships are many.

First, as mentioned above, scarcity is based on the principle of reactance, where people respond to product shortage by placing greater psychological value on perceived scarce products and thus, are tempted to exhibit behaviors like sense of urgency and hoarding in order to restore their lost freedom. Extant literature also suggests scarcity leading to hoarding behaviors (Byun and Sternquist 2008; Frost and Gross 1993), thus supporting our choice of variables. Also, the themes that emerged from qualitative interviews (discussed in later chapters) indicated perceived scarcity leads to behaviors like urgency to buy, in–store hoarding, and in–store hiding. Second, during the interviews, some store managers indicated the role of anticipated regret in influencing decision making process. Also, the in–depth literature review suggested the role of anticipated regret in mediating consumers' purchase intentions in time restricted promotional messages (Swain, Hanna, and Abendroth 2006), thus providing motivation to examine it further in this study. Third, the psychology literature suggests traits like competitiveness and hedonic need fulfillment as key individual differences that might influence consumer decision making while shopping. Given that we are examining consumer decision making in a shopping environment, the study of these psychological variables becomes essential. Fourth, prior literature (Snyder and Fromklin 1980) on scarcity also recognized an interaction between scarcity and the need for uniqueness and suggested that people having a social desire to maintain a sense of uniqueness are more likely to acquire scarce products, thus supporting our decision to examine the moderating role of need for uniqueness. Last, comparing shopping behavior across genders is an

important market segmentation approach and has been used by many researchers and thus, been a motivation to pursue it in this study.

Besides the above stated variables, some other variables were also measured. These included perceptions of store policies, perceptions of messiness within a store, and ease and efficiency of hoarding products. The variables were selected as qualitative interviews suggested in–store hiding resulted from strict store policies and was facilitated by messy store ambience. Similarly, ease and efficiency of carrying products across the store emerged as one of the motivations to indulge in in–store hoarding. We had hoped that store policies and messiness within a store will positively moderate the relationships between perceived scarcity and in–store hoarding and in–store hiding, but none of the multiple regression analyses were statistically significant. Similarly, a simple regression analyses suggested no significant relationship between ease and efficiency and in–store hoarding. Thus, though these variables emerged as key themes in qualitative interviews, due to lack of statistical support they are not included in the model. To measure the role of self–regulation, a scale developed by Higgins et al. (2000), measuring prevention and promotion orientations was also added in the questionnaire with a hope of understanding "if consumers with a prevention orientation think differently about perceived scarcity than those with a promotion orientation?" As suggested by Higgins et al. (2000), binary logistics was conducted to examine the role of prevention/ promotion orientation in influencing decision making. However, the results were not significant, thus the scale was not further pursued in this study. One reason for the lack of significant results could be that prior studies conducted to examine the roles of promotion/prevention orientations

on consumer decision making (Higgins et al. 2001) have used experimental methods rather than surveys.

The Mediating Role of Anticipated Regret

Most of research in decision making has focused on cognitive factors, but recently a growing body of research has emphasized the importance of emotions in decision making. Research examining the relationship between emotion and decision making has focused on emotions like anticipated regret (Bell 1982; Loewenstein *et al*. 2001; Loomes and Sugden 1982). These anticipated emotions, though not experienced in the immediate present, are expected to be experienced in the future. Bell (1982) and Loomes and Sugden (1982) explicitly incorporated the anticipatory aspects of regret into their model of decision making, called "regret theory." According to this theory, the choice decision also depends on the feelings evoked by the outcomes of rejected options. People compare the actual outcome with what the outcome would have been if a different choice had been made, and experience emotions as a consequence of this comparison. These emotions include regret if the foregone outcome was better than the actual outcome and rejoicing if the foregone outcome was worse. Studies suggest that these emotional consequences of decisions are furthermore anticipated and taken into account, especially when making decisions in uncertain situations.

Anticipated regret motivates behavior because regret is a particularly pervasive and powerful emotion that people wish to avoid. Several studies suggest that anticipated regret among consumers leads to choices which are safer, thus showing risk-aversion behaviors (Josephs *et al.* 1992; Li *et al.* 2010; Richard *et al.* 1996). Further, in a consumer context, Simonson (1992) suggests that if consumers anticipate that their

purchase decision will turn out badly, they are more likely to buy an item currently on sale (rather than wait for a possible better sale) and are more likely to buy a well-known but more expensive brand. However, other work suggests that when choosing between alternatives, people tend to make regret-minimizing choices rather than risk-minimizing choices which either can be risk-seeking or risk-avoiding (Hetts *et al.* 2000; Zeelenberg *et al.* 1996; Zeelenberg and Beattie 1997).

Swain, Hanna, and Abendroth (2006) examined the impact of consumer promotions (for example, discounts) on anticipated regret and purchase intentions. They argue that discounts impact consumers' purchase intentions by affecting not only the perceived economic outcome but also emotional outcomes like anticipated regret. The study suggests that during discounts, favorable deal evaluations lead to greater anticipated regret which further heightens a consumer's sense of urgency, thus suggesting a mediating role of anticipated regret. Further, Du, Abendroth, and Chandran (2006) examine the moderating role of perceived scarcity on the effects of anticipated regret in bidding decisions. The study suggests that when the auction item is scarce, anticipated regret over losing the chance to get a bargain is likely to have a dominant effect on bidding. However, when the auction item is not scarce, regret over winning but overpaying is likely to have a dominant effect on bidding.

The current study suggests that among consumers perceived scarcity influences urgency to buy not only directly, but also indirectly, by affecting anticipated regret. Retailers, by adopting fast-fashion strategies and controlling the amount of fashion product on the retail floor, facilitate consumers' uncertainty about product availability. These retailers through different strategies make consumers realize that if they don't get

the desired product right away, then they won't get it in future. Thus, consumers soon start to understand that while shopping in these stores if they wait then it is very likely that they will end up with not getting the desired product, a decision that they would regret. Thus, we suggest that consumers under these retail environments are then more likely to anticipate the consequences of their decisions and to avoid regret due to ending up without the desired product and, thus, will actually buy the product immediately. Thus,

H2: In retail stores with strategically imposed scarcity environments, the relationship between perceived scarcity and urgency to buy is mediated by anticipated regret.

In–store Hoarding

Frost and Hartl (1996) define hoarding as consisting of the following key elements: (1) the acquisition of a larger number of possessions, (2) subsequent failure to discard possessions, and (3) resulting clutter that precludes the use of living spaces in the manner for which those spaces were designed. Hence, in general, hoarding is viewed as a type of inventory accumulation and is exhibited when one perceives high levels of risk for being deprived of the product (Frost and Stekette 1998; McKinnon, Smith, and Hunt 1985). Hoarding behaviors are generally motivated by a strong desire for immediate ownership of an item due to the fear of scarcity or unavailability of a product (Frost and Gross 1993; Lynn 1993; McKinnon, Smith, and Hunt 1985; Verhallen and Robben 1994).

Hoarding behaviors are associated with an exaggerated sense of control or desire for control over possessions and have been considered in consumer and economic

psychology literature in the context of materialism. Belk (1985, p. 267) defines possessiveness, a dimension of materialism, as the "inclination and tendency to retain control or ownership of one's possessions." Further, the emotional attachment that a hoarder develops for a possession, in particular, the tendency to relate the possession as part of one's self or one's identity also plays an important role in the hoarding of possessions. Research suggests that for people who hoard getting rid of possessions often feels like losing a part of themselves or their identity (Frost *et al.* 2007). Frost and Gross (1993) speculate that hoarding is an avoidance behavior tied to indecisiveness and perfectionism. Hoarding behaviors are also associated with less willingness to share, negative reactions to unauthorized touching or moving of possessions, and concern over other people using or taking possessions (Frost *et al.* 1995). Given the nature of hoarding behavior, some researchers associate it with psychological disorders and suggest such behavior to be serious and threatening (Frost *et al*. 2009).

Recently, researchers have introduced the concept of 'in-store hoarding' and define it as consumers' desire to possess an item and keep it for themselves while shopping, although not sure whether they want to buy it or not (Byun and Sternquist 2008). It occurs due to a sudden urge to possess the merchandise generated due to certain situational factors like scarcity, uncertainty about product availability, or competition among shoppers. Studies also suggest that in-store hoarding can occur due to promotional factors (e.g., sales or special offers) or appealing product factors (e.g., color, quality, or design) (Byun and Sternquist 2008; Frost and Steketee 1998). These situational or promotional factors are likely to increase consumers' concerns about product availability, thus creating a fear of losing the product (or loss aversion behaviors) (Frost and Gross

1993; Frost, Meagher, and Riskind 2001; Verhallen and Robben 1994). Thus, in-store hoarding is different from regular buying behavior as it creates stronger emotional or psychological reactions, leading to consumers possessing the product without a clear intention of buying and keeping it to themselves until they reach a final buying decision.

In-store hoarding similar to hoarding behavior exhibits a desire for control over possessions and thus facilitates possessiveness. Consumers, through in–store hoarding behaviors, have the experience of ownership of a good without actually physically possessing it, thus facilitating mere–possession effect (Sen and Johnson 1997). Walking around the store with one's wares makes the products feel like mine regardless of whether they are bought or not. It reflects risk-avoiding behaviors, a sense of security, less willingness to share, and concern over other people (or consumers) using or taking possessions. Though like hoarding behaviors, in-store hoarding facilitates possession of a large number of items, but such possession is temporary in nature, and consumers after making the buying decision need to discard the remaining items, which is not the case in hoarding. Literature further suggests that in-store hoarding delivers diverse experiential value to consumers, which in turn positively influences their hedonic desires, satisfaction, and repatronage intentions (Byun and Sternquist 2011; Nichols 2012). In general, consumers can derive their hedonic satisfaction from an interaction with a store environment, product, or from promotional or marketing activities (Sweeney and Soutar 2001). Consumers by experiencing fun and excitement associated with the buying process are able to seek hedonic shopping satisfaction (Babin et al. 1994; MacInnis and Price 1987). In-store hoarding provides an opportunity to the consumer to take possession of a unique or scarce item before it is gone, thus inducing fun and excitement

to the whole process. Consumers, by possessing scarce products (for trying on or buying), feel a sense of satisfaction of having won a shopping game and thus acquire a hedonic pleasure or psychological gain from the whole process. Researchers further suggest that retailers, by encouraging in-store hoarding, provide hedonic pleasure that actually helps the retailers differentiate from their competitors and further encourage consumers to increase their loyalty to the brand (Byun and Sternquist 2011).

The current study suggests that while shopping under conditions of scarcity, consumers are more likely to be actively engaged in in-store hoarding behaviors. Due to the scarcity communicated by these retailers, consumer's freedom is threatened, thus triggering psychological reactance and encouraging them to take immediate actions to safeguard their behavioral freedom. As consumers perceive these scarce products as unique and, consequently, as irreplaceable, the fear of losing these products to other consumers exaggerates the desire for control over products, thus leading to in-store hoarding behaviors. Engaging in such behaviors facilitates risk-avoidance behaviors and less willingness to share the scarce products with other consumers, thus providing a sense of security, happiness, satisfaction, and possession-defined success (Richins and Dawson 1992). The study also suggests that besides perceived scarcity, consumer's in–store hoarding behavior is motivated by the intensified urgency to buy the product. In the context, consumers can not delay their buying decisions (thus, exhibiting urgency to buy), but at the same time want to explore the different choices offered within a store before making the final decision, thus leading to in–store hoarding behaviors. Such behaviors become more important in the context of apparel shopping as consumers want to try different choices before reaching the final purchase decision. Thus, we propose,

H3a: In retail stores with strategically imposed scarcity environments, perceived scarcity will lead to higher in–store hoarding behaviors.

H3b: In retail stores with strategically imposed scarcity environments, urgency to buy will lead to higher in-store hoarding behaviors.

In–store Hiding

The current study defines hiding behavior as a consumer's intentional act of removing the desired product from other consumers' sight and hence increases the odds of buying the desired item later. In the marketing literature, hiding behavior has been sparsely examined except in the context of thrift shopping (Bardhi and Arnould 2005) or Black Friday shopping (Lennon, Johnson, and Lee 2011). Both of the studies suggested hiding to be a time dependent behavior where the deliberate act to hide occurs a day before an event. Bardhi and Arnould (2005) suggested that in thrift stores, consumers one day before a dollar sale purposely hide the items of interest from the other consumers. Similarly, Lennon, Johnson, and Lee (2011) revealed a similar finding in the context of Black Friday and suggested that consumers go the day before and hide the desired item with a hope that the desired items will be available when they get to the store the next day.

Retailers by communicating scarcity threaten consumer freedom, thus triggering psychological reactance and encouraging them to take immediate actions to safeguard their behavioral freedom, leading to behaviors like urgency to buy or in–store hoarding. However, at the same time, consumers want to explore the different choices offered in the marketplace and thus use in-store hiding behaviors as a way to buy time and, thus, delay decision making on the perceived scarce items. In–store hiding as defined in this study

extends to the sparse literature on hiding behaviors by suggesting that this behavior could occur while one is shopping and thus is not time dependent. Hiding behaviors further facilitate mere–possession effects and, similar to hoarding behaviors, reflect consumers' desire to possess an item of interest and keep it to themselves while shopping. Also, hiding behaviors exaggerate the desire for control over products and facilitate risk-avoidance behaviors. Thus,

H4a: In retail stores with strategically imposed scarcity environments, perceived scarcity will lead to higher in–store hiding behaviors.

H4b: In retail stores with strategically imposed scarcity environments, urgency to buy will lead to higher in-store hiding behaviors.

The study further suggests that the above proposed relationships will be moderated by individual traits like competitiveness, hedonic need fulfillment, and the consumer's need for uniqueness. As per Baron and Kenny (1986), a moderation effect is a causal model that postulates "when" or "from whom" an independent variable most strongly (or weakly) causes a dependent variable. In essence, a moderator modifies the strength or direction (i.e., positive or negative) of a causal relationship. As mentioned above, a review of literature reveals that trait competitiveness and hedonic need fulfillment are key individual differences related to shopping behavior that may influence consumer decision making. Further, prior literature on scarcity recognizes an interaction between scarcity and need for uniqueness and suggests that people having a social desire to maintain a sense of uniqueness are more likely to acquire scarce products. Thus, these findings have been the main motivation to examine the moderating effect of

competitiveness, hedonic shopping motivation, and consumer's need for uniqueness on the above proposed relationships.

The Moderating Role of Competitiveness

The trait of competitiveness is an essential ingredient of an individual's psychological profile (Mowen 2000). It is a core aspect of personality and has been defined as "the enjoyment of interpersonal competition and the desire to win and be better than others" (Spence and Helmreich 1983, p.41). It influences individual reactions to a wide range of situations. For instance, in bargaining situations, research suggests that although bargaining behavior is primarily determined by situational contingencies, buyers often attribute their opponents' behavior to their level of competitiveness (Brown, Cron, and Slocum 1998). It is also suggested that competitiveness is a motivating force for individuals' self–set goals and influences performance outcomes. For example, the competitiveness trait is found to be a significant factor in determining the decision to strategically exit an auction (Angst, Agarwal, and Kuruzovich 2008). Mowen (2004) examines the role of competitiveness in impacting consumer behavior in the context of conspicuous consumption of products like the purchase of innovative, new automobiles, and the latest electronic equipment. Competitive people purchase these socially visible goods to obtain private meanings of achievement and to differentiate themselves from others (Richins 1994). These symbolic consumption products show variability in ownership and are personalizable. As an extension of themselves, these goods thus are used to enhance a competitive person's self–image by showing that they are better than others through the ownership of material goods.

Literature also suggests that self-image enhancement can easily be achieved by acquiring new, exclusive, or scarce products (Belk 1988). Literature also associates scarcity with competition and suggests that successfully obtaining something scarce signifies one winning the competition (Knowles and Linn 2004). Hence, we suggest that consumers having high levels of competitiveness are likely to respond to limited availability conditions by perceiving limited available products as a way of defining themselves as different and better from their peers. Thus, under the conditions of perceived scarcity, the desire to win and be better than others will motivate consumers with high competitiveness to exhibit higher urgency to buy that will further result in higher tendency to hoard or hide the scarce items. Henceforth,

H5: The influence of perceived scarcity on (a) urgency to buy, (b) in-store hoarding, and (c) in–store hiding will be higher for consumers with high levels of competitiveness as compared to consumers with low levels of competitiveness.

The Moderating Role of Hedonic Shopping Motivation

Consumer behaviorists suggest that individual shopping behavior is often dictated by the inherent enjoyment and fun associated with the act, commonly characterized as the "hedonic" motive for shopping (Babin, Darden, and Griffin 1994). It means that buyers are energized by the very act of shopping itself and derive the hedonic motivation from an interaction with a store environment, product, or from promotional or marketing activities (Sweeney and Soutar 2001). Consumers through the experience of novelty, fun, surprise, or excitement associated with the buying process are able to seek hedonic satisfaction (Babin et al. 1994). As per Hausman (2000), for some consumers shopping is

a surrogate for hunting, and the search and acquisition of goods are the rewards associated with the process. Consumer behaviorists have also noted that shoppers linger in malls because the experience of wandering through the malls is inherently satisfying and, as with all the activities that are enjoyable, the shopper does not wish to end the activity (Cobb and Hoyer 1986).

Arnold and Reynolds (2003) investigated hedonic reasons of why people go shopping and found six broad categories that motivate shopping: (1) adventure, (2) social, (3) gratification, (4) idea, (5) role, and (6) value. Behaviors like in-store hoarding and in–store hiding provide consumers with an opportunity to take possession of a unique or scarce item before it is gone. These behaviors thus facilitate possessiveness, loss aversion behavior, less willingness to share the scarce items with potential competitors, variety seeking, information seeking, and active engagement with the product, thus making the whole process adventurous, exciting, and enjoyable. We suggest that for consumers with high hedonic shopping motivations, controlling scarce products through behaviors like in–store hoarding and in–store hiding, satisfies their hedonic needs related to adventure, fun, novelty, and variety, thus providing a psychological gain through the whole process. Therefore, we propose that under the conditions of perceived scarcity, consumers with high hedonic shopping motivations are more likely to exhibit in–store hoarding and in–store hiding behaviors. However, we also suggest that consumers with high hedonic shopping motivations are less likely to exhibit urgency to buy. Consumers with high hedonic motivation will be likely to derive satisfaction and pleasure from an interaction with a store environment, product, or from promotional or marketing activities (Sweeney and Soutar 2001), which is less likely to be achieved by buying the product right away.

For them, interaction with the store environment and different products is enjoyable and adds to their hedonic shopping experience, and, thus, the likelihood of their exhibiting urgency to buy will be reduced. Henceforth,

H6: The influence of perceived scarcity on urgency to buy will be lower for consumers with high levels of hedonic shopping motivation as compared to consumers with low levels of hedonic shopping motivation.

H7: The influence of perceived scarcity on (a) in–store hoarding and (b) in–store hiding will be higher for consumers with high levels of hedonic shopping motivation as compared to consumers with low levels of hedonic shopping motivation.

The Moderating Role of Need for Uniqueness

Need for uniqueness theory suggests that people, especially those in Western cultures, have a need for separate identity (Snyder and Fromkin 1977). In order to satisfy the need for separate identity and to reclaim their self-esteem, people thus are motivated to adopt self-distinguishing behaviors. Material expressions that differentiate one from others are highly valuable as they satisfy the need for uniqueness without risking severe social penalties (Snyder 1992). Individuals thus can fulfill their desire for uniqueness by collecting material goods or possessions (Belk 1988; Snyder and Fromkin 1977; Tafarodi *et al.* 2004). Thus to pursue self-uniqueness, consumers shop at small, less frequented stores or buy rare and customized products (Burns and Warren 1995; Franke and Schreier 2008). Further as clothes are an image of self, consumers' need for uniqueness can also be exhibited by acquiring or wearing clothing that helps them establish a unique personal

identity as well as a unique social image (Tepper and Hoyle 1996). Thus, by acquiring a unique product, a person can restore his/her own self-view.

Given that possessions are often perceived as part of the extended self (Belk 1988), studies further suggest that scarcity can serve as a uniqueness attribute and thus consumers who are high in need for uniqueness are likely to desire scarce products (Lynn 1991; Snyder and Fromkin 1977). Self-image enhancement, which occurs via the transference of symbolic meaning from the purchased product to the self, can easily be achieved by acquiring new, exclusive, or scarce products. Hence, consumers having higher need for uniqueness are likely to respond more positively to limited availability conditions by perceiving limited available products as a way of defining themselves as different from their peers.

The current study suggests that consumers, when subjected to perceived scarcity, are more likely to exhibit a sudden and spontaneous urge to buy which further leads to deviant and competitive behaviors like in–store hoarding and in–store hiding. The study further suggests that these relationships will be stronger for consumers having higher need for uniqueness, as possessing scarce products right away will help them fulfill their desire for separate identity (Coley and Burgess 2003). The need for differentiating themselves from others will motivate them to exhibit higher urgency to buy and hoard or hide scarce items more in order to reassert their position as a unique individual (Donthu and Gilliland 1996; Workman and Kidd 2000). Thus, perceived scarcity will arouse higher urgency to buy, in–store hoarding, and in–store hiding behaviors in consumers with high need for uniqueness as possessing something scarce will provide them with a greater sense of accomplishment and uniqueness. Henceforth,

H8: The influence of perceived scarcity on (a) urgency to buy, (b) in-store hoarding, and (c) in–store hiding will be higher for consumers with high levels of need for uniqueness as compared to consumers with low levels of need for uniqueness.

The Role of Gender on Urgency to Buy, In-Store Hoarding, and In–store Hiding Behaviors

Comparing shopping behavior across genders is an important market segmentation approach and has been used by many researchers. Previous retail researchers have largely examined gender and consumption in terms of female shoppers, thus under-representing males in the studies. However, in recent years there has been a rise of a "*new hegemonic masculinity*" (Patterson and Elliott 2002), which includes a feminization of masculinity, a phenomenon where males are getting concerned about their appearance (Ostberg 2009; Salzman et al. 2005; Sturrock and Pioch 1998). Due to changing male views about their own masculinity, men are now increasingly engaging in consumption behaviors that were traditionally considered off-limits. Due to this change in mainstream masculinity, males are spending time and money on their appearance and are now seen more involved in shopping for products that were once seen as female, for example, apparel, cosmetics, and skin-care (Bakewell and Mitchell 2006; Dholakia 1999; Otnes and McGrath 2001; Tuncay and Otnes 2007). Getting a manicure or dressing in the latest fashion is actually considered essential for a successful business career by this "new" man. Recent research also suggests that men aged 18-34 shop considerably more than older men (Marks 2002), and that younger men are more openly shopping for fashion and beauty products (Global Cosmetic Industry 2002), indicating an increasing

trend towards less stereotypical behaviors. Thus, given the rise of the male consumer as an avid consumer of fashion goods, the current research examines the influence of perceived scarcity on decision making between both males and females.

Researchers have also found differences between males and females in their shopping behaviors (Grewal *et al.* 2003; Noble *et al.* 2006; Otnes and McGrath 2001; Rohm and Swaminathan 2004). Contemporary males, when shopping for fashion and beauty products which are traditionally reserved for female consumption, witness tension between the more traditionally masculine consumer roles that focus on rationality and usability, and the more feminized consumer roles that focus on body and appearance. By pursuing lifestyles or identities that may be perceived by their social groups as outside their traditional cultural boundaries, the contemporary male tends to feel vulnerable when using the marketplace to express their non-traditional identities (Tuncay and Otnes 2008). To overcome the identity-vulnerability and to create the right balance between masculinity and femininity, male consumers, especially those in the younger age groups, tend to construct their male consumer identity of "achievement-orientation" through consumption (Holt and Thompson 2004; Ostberg 2009). Thus, in order to maintain their achievement-orientation identity, males view shopping as competition and thus create a desire to achieve or win (Otnes and McGrath 2001). This ability to win and defeat the marketplace results in "shopping success" for them. Thus, by introducing competitiveness and adhering to the ethic of achievement, males symbolically transform stereotypically female activities into masculine accomplishments.

Research further suggests that while shopping for fashion products, the contemporary male in order to construct his masculine identity tends to find a balance

between caring too much for appearance and being too sloppy (Rinallo 2007). Males thus adopt a "safe zone" where they can safely experiment with fashion consumption activities and objects. Males, hence, tend to be more time conscious, tend to exhibit less patience, try to complete the shopping activity in the shortest possible time, are less likely to browse, and tend to seek and purchase the items they intend to buy (Bakewell and Mitchell 2004; Grewal *et al*. 2003; Nelson 2000; Underhill 1999). Such "masking behaviors" deemphasize the consumption behavior males display to others and communicate that they are not too careful with their appearance (or else they will be viewed as effeminate), but at the same time are concerned about self-appearance (or else it would have a negative social consequence).

On the other hand, females, especially those in the younger age groups, are expected to be concerned about fashion and beauty (Freedman 1986). Sociocultural pressures regarding appearance management are stronger for females and since childhood they have been encouraged to be interested in appearance and beauty (Chang, Burns, and Francis 2004). Paoletti and Kregloh (1989) characterize this as a kind of duty for females. Thus, females are more positive about shopping as compared to males and therefore spend more time shopping (Allegra 2002; Campbell 1997; Zeithaml 1985), visiting more shops (Campbell 1997), and shopping more often (Dholakia 1999). Generally, females view the process of shopping as hedonic activity (Bakewell and Mitchell 2004; Mitchell and Walsh 2004) and an escape (Fischer and Arnold 1990), and shop for reasons other than just getting a specific item. Studies also suggest that, given shopping primarily has been regarded as a feminine activity (Otnes and McGrath 2001) females are more likely to engage in cognitive deliberation when processing shopping decisions. Thus, they are

more likely to make rational purchase decisions by evaluating information resulting from browsing, comparison shopping, reference group recommendations, and advertisements. Studies suggest that females while shopping are more involved in the purchase process (Slama and Tashchian 1985), seek information more actively before making purchases (Zeithaml 1985), have a higher tendency to engage with the products, and think through purchase decisions and their possible consequences (Coley and Burgess 2003).

Wheeler and Berger (2007) further suggest that a shopping environment as a prime is capable of activating diverse, and sometimes opposite, effects on consumer choice across genders. They found that the same prime (shopping for clothes) activated different associations (purpose-driven vs. possibility-driven associations) between males and females, thus generating diverse effects on consumer choice. Males when shopping for clothes are likely to shop only for a specific item and only when that item is needed because they see shopping as need-driven and, hence, are mainly motivated to fulfill that need (Campbell 1997). However, for females, shopping for clothes is more of an experience of discovery because they see shopping as enjoyable and derive satisfaction from the whole process.

The current paper suggests that when males and females are subjected to the same "perceived scarcity" prime, it leads to different choice behaviors between them. While shopping for fashion goods, men tend to construct their male consumer identity of achievement-orientation by defeating the marketplace. Further, literature associates scarcity with competition and suggests that successfully obtaining something scarce signifies one winning the competition (Knowles and Linn 2004; Nichols 2012). Thus, when males in a fashion store are subjected to perceived scarcity, they associate scarcity

with competition, which triggers psychological reactance that creates a sudden and spontaneous urge to buy. Obtaining the scarce product right away and regaining the freedom, fulfills their desire to win the game against the retailer and other consumers, thus establishing their self-identity of achievement orientation. Thus, getting the scarce fashion product right away gives males a sense of accomplishment and symbolically transforms a stereotypical female activity into a masculine endeavor. Further, by exhibiting urgency to buy, males are able to complete the shopping process in the shortest possible time, thus masking their consumption behavior in the eyes of others and communicating that they are neither too careful nor sloppy about their appearance.

Females, on the other hand, have a higher concern for clothing and fashion consciousness. Noble *et al*. (2006) suggest that for females, interaction with the store environment and different products seems enjoyable and adds to their hedonic shopping experience. Further, females tend to be risk averse (Croson and Gneezy 2009) and are more likely to make more rational decisions by indulging in information seeking, comparing, and engaging with products (Coley and Burgess 2003). As females have more hedonic shopping motivations, possessing scarce products rather than buying them right away will make them feel satisfied with having won a shopping game. Hence, females subjected to perceived scarcity are motivated to adopt in-store hoarding and in–store hiding behaviors. Such behaviors facilitate possessiveness, loss aversion behavior, less willingness to share the scarce items with potential competitors, variety seeking, information seeking, and active engagement with the product, thus helping them regain their behavioral freedom and making the whole process exciting and enjoyable. Thus, we propose,

H9: The influence of perceived scarcity on urgency to buy will be higher for males as compared to females.

H10: The influence of perceived scarcity on (a) in-store hoarding and (b) in–store hiding behavior will be higher for females as compared to males.

CHAPTER 3

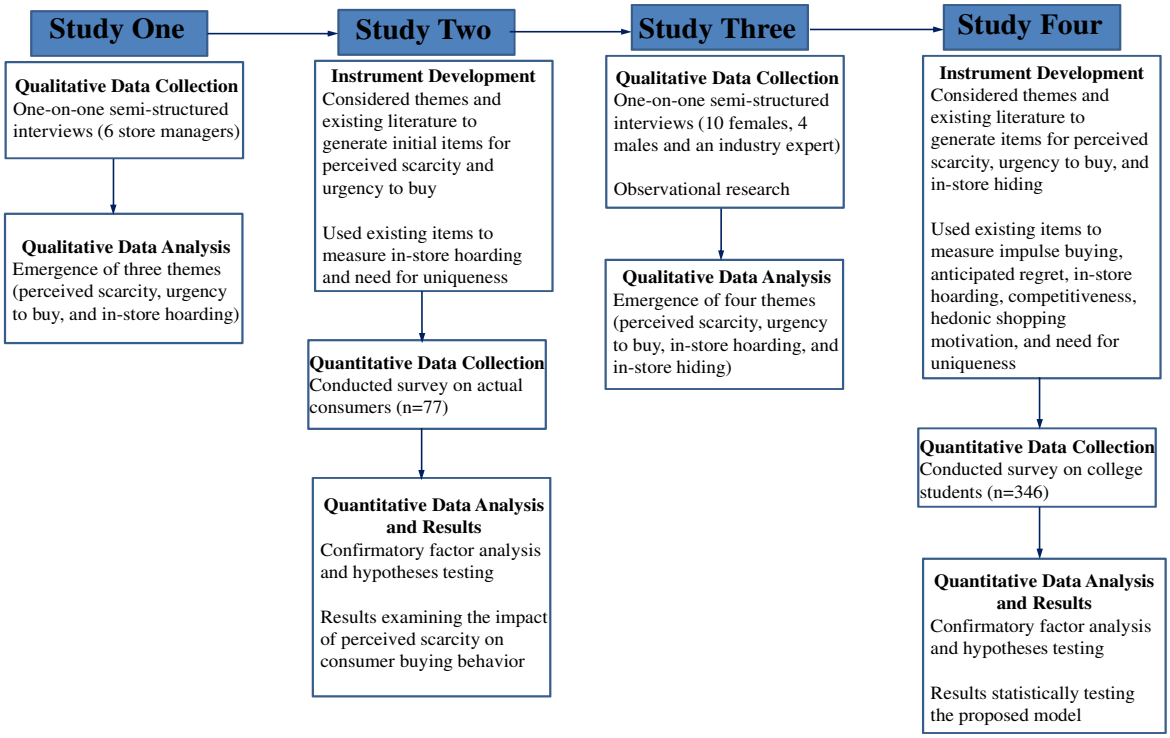
METHODOLOGY

To date, researchers have not explicitly described constructs like perceived scarcity, urgency to buy, and in–store hiding. Further, due to the lack of literature, few or no items exist to measure these constructs. Hence to understand these constructs better and how they influence consumer buying behavior, the study follows a mixed methods approach. Mixed methods research provides a deeper understanding of a research problem than either qualitative or quantitative research alone (Creswell and Clark 2010). Qualitative data helps in understanding the voices of the participants which are not directly heard in quantitative research. Quantitative research, on the other hand, helps in removing personal biases that are created during interviews and interpretations and further, generalizes findings to a larger group. Thus by combining both of the approaches, one can offset the weaknesses of either approach used by itself.

Given the merits of mixed methods, the data collection for this research unfolded in two qualitative and two quantitative studies. The purpose of the first study was to understand the phenomenon of perceived scarcity and its influence on consumer purchase intentions from a retailer's perspective, which was accomplished by interviewing store managers. The analyses of qualitative interviews were then used to build the second study which was quantitative in nature. In study 2, on the basis of interviews and the literature review, a construct to measure urgency to buy was developed and, along with existing measures, was used for the first statistical test of the conceptual model. To have a deeper understanding of the phenomenon of in-store hoarding, in–store hiding, and influence of perceived scarcity across genders (which were overlooked in the first qualitative inquiry),

in-depth interviews with an industry expert and consumers were conducted in the third study. Further, observational research was also conducted to examine the phenomenon of in-store hoarding and influence of perceived scarcity on purchase behaviors across genders. On the basis of the above three studies, a final refined survey concluded the data collection process. By conducting these four studies, we were able to understand the phenomenon of perceived scarcity and its influence on the consumer buying behavior (see figure 3.1). Also prior to the above suggested data collection processes, necessary Institutional Research Board (IRB) approvals were obtained (see appendix A).

Figure 3.1
Visual Diagram of the Four Studies



Study 1: Qualitative Inquiry

This study is the first of two qualitative inquiries and was conducted to explore the phenomenon of perceived scarcity and its influence on consumer buying behavior from a retailer's perspective. A script following ethical guidelines suggested by Kozinets (2002) was used to contact the store managers (see appendix B). Face-to-face interviews were conducted with six store managers working in fashion stores like H&M and Buckle located across the Midwestern and Northeastern United States. H&M is a Swedish retail-clothing company known for its fast-fashion clothing offerings and has stores all over the world, including the United States. In 2011, it was ranked as the second largest global retailer. Buckle, on the other hand, is an American retail-clothing company, known for its specialty clothing offerings and has stores throughout the United States.

The participants have been store managers for the respective stores from 2 to 15 years (M = 7.7, SD = 5.8) and their ages varied from 24 to 40 years (M = 29.9, SD = 5.4) (see table 3.1). Open-ended questions were drafted in such a way as to help the interviewees think about their role as store managers (see table 3.2). Some of the important questions included their roles as merchandisers, visual merchandisers, and team leaders, and how these roles influenced consumers' buying behaviors. Questions were often followed by additional probes for more detailed explanations. Detailed field notes were taken by the interviewer. All participants gave the interviewer permission to record the sessions. Interviews were conducted until the point of theoretical saturation was reached (Lindlof 1995). Interviews ranged in length from 30 to 50 minutes and each was later transcribed for data analysis.

Table 3.1
In-Depth Interview Participants (Store Managers)

Name	Age (in years)	Gender	Experience as Store Manager (in years)
Kelly	30	Female	6
Tanya	24	Female	2
Amy	40	Female	15
Chelsea	31	Female	9
Jenny	23	Female	2
Casey	39	Female	12

Table 3.2
Semi-Structured Interview Questions used in Qualitative Inquiry 1

Q1. In this store, what are your roles as a store manager?
Probe: What is your role as a merchandiser and visual merchandiser?

Q2. How much effort do you and your employees put into checking whether the merchandise is properly located?

Q3. How much effort do you and your employees put into changing the in-store displays or shuffling the in-store merchandise?

Q4. How many times do you change the in-store displays or shuffle the in-store merchandise?

Q5. What influence does proper allocation of merchandise have on the purchase decision of the consumer?
Probe: Does the merchandise control lead to resource scarcity perception?
Does the perceived scarcity enhance the purchase decision, like the consumer developing perceptions that one must buy the merchandise now or else it won't be available in the future?

Q6. How does the frequency of changing the displays or shuffling of merchandise affect the store environment?

Q7. How do frequent changes in merchandise displays and continuous merchandise shuffling influence the consumer buying decisions?
Probe: Does continuous changing of in-store merchandise create a perception in the consumer's mind that whenever I go to this store there will be something new or fresh?

Study 2: Quantitative Analysis

For urgency to buy, initial items generated from interviews were incorporated with the measurements adapted from previous studies or derived from conceptual discussion in the literature. Scales developed by Byun and Sternquist (2008) were used to measure perceived scarcity and in-store hoarding. For need for uniqueness, a three-item scale was adopted from consumers' need for uniqueness scale (Tian, Bearden, and Hunter 2001). All items were measured on five-point Likert-type scales ranging from strongly agree (5) to strongly disagree (1). A faculty member and 31 undergraduate students in marketing evaluated the quality of the measurements in terms of clarity, reliability, and validity of the scales. They read each measurement items and provided feedback as to whether the item was clear or not. If the item was not clear, then suggestions were asked for in order to improve the item specified. The items were then modified on the basis of their recommendations (see table 3.3).

Table 3.3
Measurement Items

Perceived Scarcity
While shopping in this store, I found that there were a limited number of products per size, style, and color
While shopping in this store, I found that the products of interest were often scarce in my size
While shopping in this store, I found that the styles or the products that I was interested in were almost out of stock
I found overabundance of the product (reverse scaled)
Urgency to Buy
While shopping in this store, when I find products of interest, I develop a desire to buy them immediately
While shopping in this store, when I find products of interest, I plan to buy them even though I had not intended to purchase them
In this store, if I don't buy the product of interest right away, it is very likely that I

won't have a chance to purchase it later
While shopping in this store, when I find products of interest, I buy them without considering the consequences
In-store Hoarding
When I found products of interest in this store, I hurried to grab them and kept them to myself while shopping
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
Need for Uniqueness
Often, when buying merchandise, an important goal is to find something that communicates my uniqueness
I actively seek to develop my personnel uniqueness by buying special products or brands
I often try to avoid products or brands that I know are bought by the general population

Using the above measurement items, a preliminary data collection procedure was followed. Data were collected from 77 shoppers at a large Midwestern shopping complex. These participants were selected by the researcher on the basis of the criterion of whether they had physically shopped at stores like Zara, H&M, Forever 21, and Buckle. If the participants fulfilled the above requirement, they were then selected to complete the questionnaire and were also given a five-dollar cash incentive for completing the questionnaire. Fifty-five participants were female and their ages varied from 19 to 65 years (M = 26.05, SD = 11.35). The rest of the participants were male (22) and their ages ranged from 19 to 52 years (M = 27.09, SD = 9.07). Based on the demographic profile, most of the participants had some level of higher education (45%) and were mostly employed with family incomes between $50,000 and $75,000. Further, to prevent response bias, the order of the items was mixed so respondents could not recognize any patterns in the questionnaire.

Study 3: Qualitative Inquiry

This study was the second qualitative inquiry and was conducted to explore issues like in-store hoarding, in–store hiding, and influence of perceived scarcity across genders that were overlooked in the first qualitative inquiry. In-store hoarding is a new construct in the marketing literature and thus a deeper understanding of this phenomenon was imperative. Though mentioned by a few store managers in the first qualitative inquiry, in-store hoarding was not examined in detail and thus in the second qualitative inquiry we were able to delve deeper into this phenomenon. Similarly, there is only limited literature on hiding behaviors and thus qualitative interviews were able to provide a deeper understanding of this phenomenon. Further, preliminary findings of study 2 (as mentioned in Chapter 4) also suggest that males and females react differentially to conditions of perceived scarcity, thus a deeper understanding of this phenomenon was needed to examine the influence of perceived scarcity across gender.

In-depth interviews were conducted with consumers and an industry expert. Consumers (four males and ten females) were purposely selected by the researcher on the basis of the criterion of whether they had physically shopped at fast fashion stores and whether they have indulged in hoarding and hiding behaviors while shopping. Before the interviews, a large pool of consumers were asked to fill a questionnaire that primarily asked questions related to shopping at fast fashion stores and indulgence in hoarding and hiding behaviors. Consumers who had positive response to the above questions were then selected for the in–depth face–to face interviews and were provided a cash incentive of $20. The participants age varied from 22 to 45 years (M = 28.08, SD = 12.21) (see table 3.4). Further an interview was conducted with Paco Underhill, head of Envirosell, a

premier consumer behavior research and consulting firm known for conducting top observational research. Open-ended questions were drafted in such a way as to help the interviewees think about issues that included understanding of scarcity in fast–fashion stores, consumers' responses to such deliberate manipulations, behaviors like in-store hoarding, in–store hiding, and influence of perceived scarcity across gender (see table 3.5). Questions were often followed by additional probes for more detailed explanations. Interviews ranged in length from 40 to 60 minutes and each was later transcribed for data analysis. New themes stopped emerging after about 10 interviews and an acceptable interpretative framework was constructed after 15 interviews – the stage of thematic and theoretical saturation (Lindlof, 1995).

Table 3.4
In-Depth Interview Participants

Name	Age (in years)	Gender	Role
Sarah	28	Female	Consumer
Emily	24	Female	Consumer
Jill	45	Female	Consumer
Madeline	24	Female	Consumer
Martha	33	Female	Consumer
Hailey	22	Female	Consumer
Jenifer	28	Female	Consumer
Whitney	22	Female	Consumer
Katie	23	Female	Consumer
Lola	32	Female	Consumer
Sam	22	Male	Consumer
Philip	22	Male	Consumer
Adriel	24	Male	Consumer
Max	23	Male	Consumer
Paco Underhill	60	Male	Head, Envirosell

Table 3.5
Semi-Structured Interview Questions to be used in Qualitative Inquiry 2

Q1. Do you think stores like Zara, H&M, and Forever 21 are different than stores like Macy or JC Penney? If yes, please explain what differences have you observed?
Probe: Do you think stores like Zara strategically create perception of scarcity within their store?

Q2. Have you ever hidden products in any store?

Q3. What do you mean by hiding?

Q4. In what stores you have indulged in hiding behavior?

Q5. Have you ever hidden in Zara, H&M or T J Maxx? If yes, how many times have you hidden products in these stores?

Q6. What are some of the reasons to indulge in hiding behavior?
Probe: Do you think limited quantity or the scarcity communicated within the store leads to hiding behaviors?
Do you see competition from other consumers leading to hiding behaviors?

Q7. Have you ever indulge in hiding behaviors in stores like Macy, JC Penney or Target?
Probe: Do you see any differences between Macy and Zara? If yes, what are some key differences you have observed?

Q8. What have been some of your favorite hiding spots?

Q9. After hiding, do you come back to get that product? If yes, after how much time do you come back to get the hidden product?

Q10. Were you able to retrieve the product every time you go back to the store?

Q11. Does store messiness lead to hiding behavior?
Probe: Supposedly the store was messy does it cultivate hiding behavior in you?

Q12. What were the store policies of the stores where you indulged in hiding behaviors?

Q13. Do the strict store policies lead to hiding behaviors? If yes, please explain.

Q14. Besides shopping, have you ever indulged in hiding behaviors? Or how did you get into this habit of hiding?
Probe: Did someone cultivate this behavior as you were growing up etc.

Q15. Have you ever done hoarding?

Q16. How will you define hoarding?

Q17. In what stores you have done hoarding behavior?

Q18. Have you ever hoarded in Zara, H&M or T J Maxx? If yes, how many times have you hoarded products in these stores?

Q19. What are some of the reasons to indulge in hoarding behavior?
Probe: Do you think limited quantity or the scarcity communicated within the store lead to hoarding behaviors?
Do you see competition from other consumers leading to hoarding behaviors?

Q20. Have you ever indulged in hoarding behaviors in other stores like Macy, JC Penney or Target?

Q21. When do you prefer hiding behaviors and when do you prefer hoarding behaviors?

Q22. Besides hiding and hoarding, what type of behaviors have you exhibited at stores like Zara, H&M, and Forever 21?
Probe: Have you ever exhibited urgency to buy behaviors within these stores?

Q23. Being a male, are you involved in shopping for clothes? Do you think your other male friends are the same or they are different as compared to you?

Q24. Generally it's being said that males don't care about their appearances. Why are you so much involved with your appearance?

Observational research was also conducted to explore the phenomenon of perceived scarcity, urgency to buy, in-store hoarding, and influence of perceived scarcity on purchase behaviors across genders. The researcher observed the consumer buying behavior across stores like Zara, H&M, Forever 21, Macys, JC Penney, and Nordstrom to draw comparisons between fast–fashion and non-fast–fashion store (see table 3.6). Based on the observations, detailed field notes were taken about consumer buying patterns

within these stores. Observational research was conducted until the point of saturation was reached.

Table 3.6
Observational Research Summary

Store	Location	Type	Number of visits	Total minutes spent
Forever 21	Providence, RI	Fast-fashion	1	60
Forever 21	Warwick, RI	Fast-fashion	1	45
Forever 21	Boston, MA	Fast-fashion	1	35
Forever 21	Chicago, IL	Fast-fashion	1	40
H&M	Providence, RI	Fast-fashion	2	90
H&M	Boston, MA	Fast-fashion	1	35
Zara	Boston, MA	Fast-fashion	1	40
Zara	Chicago, IL	Fast-fashion	1	40
Buckle	Providence, RI	Fast-fashion	1	30
Buckle	Lincoln, NE	Fast-fashion	1	35
JC Penney	Providence, RI	Fashion	1	40
JC Penney	Lincoln, NE	Fashion	1	30
Macy's	Providence, RI	Fashion	1	60
Macy's	Warwick, RI	Fashion	2	110
Macy's	Boston, MA	Fashion	1	40
Nordstrom	Providence, RI	Fashion	1	60

Study 4: Quantitative Analysis

This final study built and improved upon the previous work done and thus provides us with a deeper understanding of the phenomenon of how consumers react to the unique scarcity environments that are strategically created by marketers. Thus a modified version of the questionnaire used in study 2 was drafted. Several of the scales used to measure the constructs were adopted or modified from the extant literature. However, a few constructs had no existing scales, and new measures were created. New scales were developed utilizing procedures common to marketing scale development. The first step in the creation of a new measure is specifying the construct definition (Churchill

1979). Based on the extant literature and qualitative interviews, clear definitions for new constructs were defined and lists of items were generated. These items were carefully edited to maximize clarity and the complete survey was reviewed by four marketing professors to assess the quality of the instrument in terms of clarity, reliability, and validity of the scales. A pre-test was also conducted on 97 undergraduate students in marketing. Besides completing the survey, they read each of the measurement items and provided feedback as to whether the item was clear or not. If the item was not clear, then suggestions were made in improving the concerned item. The instrument on the basis of their recommendations and preliminary data analyses was then modified for the final data collection.

Data were collected from students at the University of Nebraska-Lincoln across two different departments, the Department of Marketing and the Department of Textiles, Merchandising, and Fashion Design, and students were offered course credit for the completion of the survey in full. There were many reasons for choosing a student sample. As suggested, perceived scarcity has been successfully created by fashion brands like Zara, H&M, Forever 21, and Buckle. The overall target market for all of these brands is fashion conscious young men and women (Watson and Yan 2013). They capture the 18-24 market which is well represented by the college student sample. Also, college-aged students have higher discretionary incomes that they like to spend on themselves (Silverman, 2000). Silverman (2000) also reports clothing to be one of the most popular categories of shopping among college-aged consumers, thus adding support for choosing a student sample for the present study. These shopping behaviors change as one matures

in age as one needs to allocate discretionary income to various other household activities, for example, shopping for kids.

Four hundred and twenty seven surveys were collected across the two departments. However, due to missing data, 81 surveys were excluded from the analyses. The excluded surveys mostly consisted of male respondents (77) with non–fashion backgrounds. The age of the participants varied from 19 to 29 (M = 21.47, SD = 2.20). Most of the respondents were juniors (35.8%), seniors (24.1%), and sophomores (22.5%). table 3.7 summarizes some of the key demographic profile of the respondents.

Table 3.7
Demographic Profile of the Participants

	Frequency	**Percent of Total**
Department		
Marketing	265	76.59
Textiles, Merchandising, and Fashion Design	81	23.41
Gender		
Male	92	26.59
Female	254	73.41
Favorite Store		
Zara	30	7.00
H&M	70	16.40
Buckle	70	16.40
Forever 21	117	27.40
American Eagle	13	3.00
Urban Outfitters	46	10.80
Ethnicity		
White	285	82.37
Black (African-American)	10	2.89
Asian	28	8.09
Hispanic	17	4.91
Others	3	0.86
Household Income		
0-5000	152	43.93

5001-19999	156	45.08
20000-34999	26	7.51
35000-49999	7	2.02
50000-74999	4	1.15
75000-99999	1	0.28

Construct Measures

Perceived Scarcity

Perceived scarcity is defined as the perception of a product shortage experienced by the consumer for a particular style or size that is strategically created by the retailer. The scale (Byun and Sternquist 2008) used to measure perceived scarcity in study 2 did not measure the concept of scarcity being strategically created by the marketer. To fill this void, three new items were added to the existing perceived scarcity scale to capture the consumer's understanding of "supply side scarcity" and that it is intentionally created by the retailer by inducing both limited time scarcity and limited quantity scarcity. During the preliminary analyses, the item, "I found overabundance of the product," exhibited low item–construct loading (0.33) and thus was removed from the modified scale. The modified scale included six items which are as follows:

While shopping in this store,

(1) I found that this store sells out fast and rarely resells the same merchandise/product.

(2) I think that the retailer intentionally creates the product scarcity by limiting product quantity for a particular size/style.

(3) I thought that product scarcity was strategically created by store policies.

(4) I found that there were a limited number of products per size, style, and color available.

(5) I found that the products of interest were often scarce in my size.

(6) I found that the styles or the products that I was interested in were almost out of stock.

Item 1 captures the consumer understanding of 'limited time scarcity' whereas item 2 and item 3 measure 'limited quantity scarcity' and that both were strategically created by the retailer.

Urgency to Buy

Urgency to buy is defined as a desire of the consumer to buy the product right away, thus limiting consumers' freedom to delay buying decisions (Beatty and Ferrell 1998). Based on extant literature on urgency to buy and qualitative interviews, items measuring urgency to buy were drafted and modified. The modified scale included three items and included the following:

While shopping in this store,

(1) when I found products of interest, I developed a desire to buy them immediately.

(2) when I found products of interest, I had an urge to buy them even though I had not intended to purchase them.

(3) when I found products of interest, I couldn't resist buying them.

Impulse Buying

Impulse buying is defined as a sudden and immediate purchase with no pre–shopping intention either to buy the specific product category or to fulfill a specific buying task (Beatty and Ferrell 1998; Rook 1987). Items were modified from impulse buying scale developed by Rook and Fisher (1995) and included the following:

While shopping in this store,

(1) I bought products of interest spontaneously.

(2) when I find products of interest, I buy them without considering the consequences.

(3) I bought products of interest without thinking.

(4) buy now, think about it later describes me.

Items such as "while shopping in this store, I have carefully planned most of my purchases" and "while shopping in this store, I didn't feel like buying things on the spur of the moment" were purposely removed as they exhibited low item–construct loadings (0.36) and (0.25) respectively during the preliminary data analysis.

Anticipated Regret

Anticipated regret is defined as an anticipated emotion that is expected to be experienced in the future if the foregone outcome is better than the actual outcome (Loewenstein *et al*. 2001). A three-item scale was adopted from anticipated regret scale developed by Sheeran and Orbell (1999). Though this scale was developed to measure the role of anticipated regret in playing lottery games, the terminology used to measure anticipated regret (e.g., if I missed playing the lottery for one week, I would be upset) was helpful in drafting the anticipated regret items for this study.

While shopping in this store,

(1) I feel like I would experience regret if I waited and ended up without the desired product.

(2) I would be upset if I missed buying some products of interest.

(3) I feel like if I missed buying the product of interest right away, I would regret it later.

In–store Hoarding

In–store hoarding is defined as consumers' desire to possess an item and keep it for themselves while shopping, although not sure whether they want to buy it or not (Byun and Sternquist 2008). Items were modified from a scale developed by Byun and Sternquist (2008). A reverse scaled item, "when I found products of interest in this store, I didn't feel like grabbing them and keeping them to myself while shopping" was removed from the modified scale as it exhibited a low item–construct loading of 0.38 during the preliminary data analysis. Thus the modified scale included the following items:

(1) When I found products of interest in this store, I hurried to grab them and kept them to myself while shopping.
(2) Sometimes when I selected a product at this store, I did not want to put it down although I was not sure if I would buy it or not.
(3) While shopping in this store, I have carried more products than what I intended to buy.

In–store Hiding

In-store hiding is defined as an intentional act of removing the desired product from other consumers' sight (and hence a functional way to increase the odds of buying the desired item later). Based on extant literature and qualitative interviews, a new scale was developed to measure in–store hiding and included the following:

When I have found products of interest in this store,

(1) I have purposely hidden them within the store in secret hiding places so that other customers might not buy them.

(2) I have hidden them somewhere where they did not belong originally.

(3) I have put them in completely different section where nobody else could see.

(4) I have hidden items so that they would be available to me later.

Competitiveness

Competitiveness is defined as the enjoyment of interpersonal competition and the desire to win and be better than others (Spence and Helmreich 1983). Items were taken from a four-item scale developed by Mowen (2004):

(1) I enjoy competition more than others.

(2) I feel that it is important to outperform others.

(3) I enjoy testing my abilities against others.

(4) I feel that winning is extremely important.

Hedonic Shopping Motivation

Hedonic shopping motivation is defined as intrinsic influence guided by a person's fun and playful mood that instinctually moves him/her towards fulfilling pleasure-driven aspects of shopping (Arnold and Reynolds 2003; Babin et al. 1994). Items were adapted from a scale developed by Arnold and Reynolds (2003) and included the following:

(1) Shopping is truly a joy for me.

(2) While shopping, it truly feels like an escape for me.

(3) While shopping, I enjoy being immersed in exciting new products.

(4) Compared to other things done, the time spent shopping is truly enjoyable.

(5) While shopping, I have a good time because I am able to act on the "spur-of-the-moment."

(6) During shopping, I feel the excitement of the hunt.

(7) While shopping, I feel a sense of adventure.

Need for Uniqueness

Need for uniqueness is defined as the consumer's trait of pursuing differentness relative to others through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's self image and social image (Tian, Bearden, and Hunter 2001). A three-item scale was adopted from consumers' need for uniqueness scale (Tian, Bearden, and Hunter 2001) and included the following:

(1) Often, when buying merchandise, an important goal is to find something that reflects my unique style.

(2) I actively seek to develop my personal style by buying special products or brands.

(3) I often try to avoid products or brands that I know are bought by the general population.

Also, to check for social desirability, a shorter version of the Balanced Inventory of Desirable Responding (BIDR) scale developed by Paulhus (1998) was incorporated within the survey. The trait of psychological reactance was measured using the scale developed by Hong and Faedda (1996). Additional questions related to consumer's buying behavior (for example, have you physically shopped at stores like Zara, H&M, and Buckle, how often have you bought from these stores, and while shopping how much time have you spent in these stores) were also included in the questionnaire (see appendix C for full questionnaire). All items were measured on five-point Likert-type scales ranging from strongly agree (5) to strongly disagree (1). Further, to prevent response bias, items were mixed so respondents could not recognize any patterns in the questionnaire.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

Study 1: Qualitative Inquiry

Data Analysis

Glasser and Strauss' (1967) method for constant comparison and Miles and Huberman's (1994) method for coding qualitative data were used to analyze the first qualitative inquiry. Two researchers, including the interviewer, first read the transcriptions to obtain the overall flavor of the interviewees' responses. Then next to each answer, labels were generated to reflect the initial coding. From these labels, themes were identified by sorting the labels into concrete categories and sub-categories. The categorizations reflected similarity in responses and frequency of responses. The transcripts were again reread along with the field notes, and frequently occurring expressions and other important observations were also included in the respective themes. Several initial themes emerged from this process which included scarcity, sense of urgency, arrival of merchandise on a daily basis, shuffling of merchandise across the stores, daily rotation of merchandise, in-store hoarding behaviors, freshness created within the store, store manager's flexibility, and retail employees' personal involvement with the customers. These themes were then reviewed to determine how they were relevant in explaining the phenomenon of perceived scarcity, urgency-to-buy, and in-store hoarding. As a result, several initial themes, such as scarcity, arrival of merchandise on a daily basis, shuffling of merchandise across the stores, and daily merchandise rotation were combined and some themes, such as freshness created within the store and personal involvement with the customers, were discarded. In the end, we had three major themes that examined the phenomenon of perceived scarcity and its influence on

consumer buying behavior. Finally, we reread the responses and categorized them into one of the three themes to ensure goodness of fit (Patton 1990).

Findings

Perceived Scarcity

Perceived scarcity included limited supply of the merchandise and deliberate manipulation of merchandise availability by the retailer. Strategies used to manipulate the merchandise availability included shuffling of merchandise across stores, daily rotation of merchandise within store, strategically controlling for the sizes and styles within the store, and not restocking or reselling the merchandise once sold. Kelly, a store manager for six years, said that getting a limited supply of merchandise from the corporate office created perceived scarcity in the store. "We aren't going to get 40 to 50 of that shirt. We are going to get just two small, two mediums, two large, an extra-large, and that's it. Getting one or two of each size creates a sense of scarcity in the consumer mind." The limited supply theme was consistent across all the interviews and most store managers suggested that keeping a shallow or wide assortment of merchandise rather than an in-depth merchandise assortment created perceived scarcity in the mind of the consumer.

Tanya, a store manager for two years, thought that regular shuffling of merchandise both across different sister stores and within stores created a perception of scarcity. "We at our store continuously send the slow moving products to the sister stores who are actually selling those products. Also we get freight everyday and we rotate our product on a daily basis. The freshening up of the store through all this shuffling creates a perception of scarcity as the consumer might think that this particular merchandise was here yesterday but now it is gone." According to Amy, a store manager for almost fifteen

years, their brand successfully created scarcity perceptions in the store. “Most consumers at most retailers will assume that they can come back and there will still be your size or style to choose from. However at our stores, we keep a limited number of products per size, style, and color and the consumer knows that it’s here today, gone tomorrow. We also get the freight daily, shuffle our merchandise often across and within stores on almost a daily basis, and are known for not restocking or reselling the item once sold. This all creates a scarcity perception in the consumer’s mind.”

Urgency to Buy

We defined urgency to buy as an urge or a desire of the consumer to buy the product right away, thus limiting consumers’ freedom to delay a buying decision. This definition was well supported across all the interviews. Chelsea, a store manager for almost nine years, said that as a retail brand they train their shoppers to sense the urgency to buy. “The consumer soon realizes that at our store, once the product is gone, it’s gone. So there is urgency. Oh my Gosh! I came here last weekend. It’s not here anymore. Where did it go? I want to make sure that I get it today, no matter what.” Further, most interviewed store managers thought that the perceived product scarcity led to the urgency to buy. As Jenny (a store manager for two years) noted, “The way we carry our product does communicate the sense of urgency to the consumer. By getting new freight daily and not getting a huge selection (by getting one of each size), it creates an urgency to want to buy it.”

One interesting theme that emerged from most of the interviews was the role of sales associates in creating the sense of urgency in the consumer’s mind. As per Casey (a store manager for almost 12 years), “Consumers notice the urgency to buy based on not

only the perceived scarcity of the merchandise but our teammates (sales associates) also help them realize and think about the sense of urgency. Through personnel touch (via face–to–face communication), sales associates communicate to the customer that the product they might be interested in, the size will go fast. Hence it's better to buy the product right away rather than delaying the buying decision."

A few interviews also suggested the role of anticipated regret in creating the urgency to buy. As per Casey, "Shoppers at our store are going to realize that Hey! I should get them (products) now; otherwise, they may not be here in future and then I will repent my decision," thus suggesting the role of anticipated regret in decision making.

In-Store Hoarding

In-store hoarding includes consumers' desire to possess an item and keep it for themselves while shopping, although they are not sure whether they want to buy it or not. According to the store managers, most of the consumers upon realizing the perceived scarcity created in the store exhibited in-store hoarding behaviors. Tanya said, "In our store, during shopping we limit seven items per consumer. But I have seen consumers grabbing more than 21 items and hoarding them all across the store and even taking them to trial rooms." According to Kelly, who has been a store manager for different brands (most of which were not fast-fashion ones), in-store hoarding behaviors were quite different across brands. "Consumers in this store like to hoard lots of items. This is very different from what I have seen in my previous job, where I was working as a store manager for a different brand. There consumers did not hoard as much as they like to do here."

Study 2: Quantitative Analysis

Data Analysis

Following Anderson and Gerbing (1988), the measurement model, measuring all the different constructs used in study 2 (e.g., perceived scarcity, urgency to buy, in-store hoarding behavior, and need for uniqueness), was assessed through structural equation modeling. A confirmatory factor analysis was conducted to test the adequacy and fit of the measurement model with the observed data. The results indicated good overall fit between the constructs and the observed data (Hu and Bentler 1999). The overall fit of the model was χ^2 (59) = 80.568, $p > 0.05$, CFI = 0.901, RMSEA = 0.055, and SRMR = 0.100. CFI exceeded the recommended 0.90 threshold level (Bollen 1989; Hoyle and Panter 1995; Hu and Bentler 1999). Similarly, RMSEA was below the recommended 0.06 threshold level (Hu and Bentler 1999). As per Kline (2005), SRMR should be below or equal to 0.10 threshold level, thus, suggesting the above SRMR to be at the recommended 0.10 threshold level.

According to Anderson and Gerbing (1988), by determining whether each indicator's estimated pattern coefficient on its proposed underlying construct is significant (greater than twice its standard error), convergent validity for the model can be assessed. An examination of the indicator loadings indicated that all were significant, thus suggesting convergent validity (see table 4.1). The data also supported the discriminant validity of the measures. We examined pairs of measures using the constrained and unconstrained model in a series of chi-square difference tests (Anderson and Gerbing 1988). The test results consistently indicated that for each pair of constructs, the unconstrained models fit the data significantly better than their constrained counterparts, thus suggesting discriminant validity. Further, the Cronbach alphas for

perceived scarcity, urgency to buy, in-store hoarding, and need for uniqueness were 0.73, 0.66, 0.75, and 0.63 respectively, thus indicating an acceptable reliability (Nunnally 1978).

Table 4.1
Scale Item-Construct Loading of Constructs

Constructs	Item-Construct loading Standardized
Perceived Scarcity	
While shopping in this store, I found that there were a limited number of products per size, style, and color.	0.57
While shopping in this store, I found that the products of interest were often scarce in my size.	0.73
While shopping in this store, I found that the styles or the products that I was interested in were almost out of stock.	0.86
I found overabundance of the product. (reverse scaled)	0.41
Urgency to Buy	
While shopping in this store, when I find products of interest, I buy them immediately.	0.76
While shopping in this store, when I find products of interest, I buy them even though I had not intended to purchase them.	0.72
In this store, if I don't buy the product of interest right away, it is very likely that I won't have a chance to purchase it later.	0.72
While shopping in this store, when I find products of interest, I buy them without considering the consequences.	0.75
In-store Hoarding	
When I found products of interest in this store, I hurried to grab them and kept them to myself while shopping.	0.94
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.	0.64
Need for Uniqueness	
Often, when buying merchandise, an important goal is to find something that communicates my uniqueness.	0.72
I actively seek to develop my personnel uniqueness by buying special products or brands.	0.64
I often try to avoid products or brands that I know are bought by the general population.	0.81

Hypotheses Testing and Findings

Having validated the measurement model, hypotheses were tested using Pearson correlations and univariate ANOVAs. A Pearson correlation coefficient was run to examine if a direct relationship between perceived scarcity and urgency to buy existed as hypothesized. The correlation between perceived scarcity and urgency to buy was $r = 0.21$, $p < 0.05$. The results suggested a significant direct relationship between perceived scarcity and urgency to buy, thus supporting the hypothesis.

Similarly, a Pearson correlation coefficient was run to examine if a direct relationship between urgency to buy and in-store hoarding existed. The correlation between urgency to buy and in-store hoarding was $r = 0.50$, $p < 0.001$. The results suggested a significant direct relationship between urgency to buy and in-store hoarding, thus supporting the hypothesis.

To examine the differential influence of perceived scarcity on urgency to buy and in-store hoarding across males and females, two separate univariate ANOVAs were conducted. A significant difference was found in the level of urgency to buy across males and females, $F(1, 75) = 7.56$, $p < 0.05$. Males had a higher level of urgency to buy (3.5) as compared to females (2.8). The results thus suggested that under the conditions of perceived scarcity, males have higher levels of urgency to buy as compared to females. Similarly, a significant difference was found in the level of in-store hoarding across males and females, $F(1, 75) = 6.93$, $p < 0.05$, thus supporting the hypothesis that females had a higher level of in-store hoarding (3.6) as compared to males (2.9).

Finally, two separate univariate ANOVAs were conducted to examine the moderating effect of need for uniqueness on urgency to buy and in-store hoarding

behavior across males and females respectively. The need for uniqueness through a median split was changed from a continuous variable to a dichotomous categorical variable before conducting ANOVA analysis. Men and women with high need for uniqueness were coded as 1 whereas ones with low need for uniqueness were coded as 2. A significant difference was found in the level of urgency to buy across the two male groups, $F(1, 20) = 6.07$, $p < 0.05$. Males with high need for uniqueness (3.2) had a higher level of urgency to buy as compared to males with low need for uniqueness (2.6). The results thus suggested that under the conditions of perceived scarcity, males with high need for uniqueness are more likely to exhibit behaviors like urgency to buy. However, no significant difference was found in the level of in-store hoarding behavior across the two female groups, $F(1, 53) = 0.68$, $p > 0.05$. The result suggested no differences in the in-store hoarding behaviors across females with high need for uniqueness (3.6) and females with low need for uniqueness (3.4), thus not supporting the moderating role of need for uniqueness across females.

Though not hypothesized, we also examined the moderating effect of need for uniqueness on urgency to buy and in-store hoarding behavior across females and males respectively. No significant difference was found in the level of urgency to buy across the two female groups, $F(1, 53) = 2.34$, $p > 0.05$. The results suggested no differences in the urgency to buy behaviors across females with high need for uniqueness (3.6) and females with low need for uniqueness (3.4). Similarly, no significant difference was found in the in-store hoarding behaviors across the two male groups, $F(1, 21) = 0.48$, $p > 0.05$. Thus, there were no differences in the in-store hoarding behaviors across males with high need for uniqueness (3.2) and males with low need for uniqueness (2.6).

Summary

The preliminary findings from study 1 and study 2 suggest that communication of limited quantity messages creates consumer behaviors like urgency to buy and in-store hoarding. Further, the influence of perceived scarcity in creating differential buying behaviors across genders is well supported. Males under the condition of perceived scarcity are more likely to exhibit higher levels of urgency to buy whereas females under the same condition are more likely to exhibit in-store hoarding behaviors. The preliminary findings further suggest that males with high need for uniqueness tend to have high levels of urgency to buy whereas across females, there seems to be no influence of need for uniqueness in influencing the in-store hoarding behaviors.

Study 3: Qualitative Inquiry

Similar data analysis procedures that were adopted in the first qualitative inquiry were used in the second qualitative inquiry. Glasser and Strauss' (1967) method for constant comparison and Miles and Huberman's (1994) method for coding qualitative data were used to analyze the qualitative inquiry. Two researchers, a marketing professor and the interviewer, first read the transcriptions to obtain the overall flavor of the interviewees' responses. Then next to each answer, labels were generated to reflect the initial coding. From these labels, themes were identified by sorting the labels into concrete categories and sub-categories. The categorizations reflected similarity in responses and frequency of responses. The transcripts were again reread along with the field notes and frequently occurring expressions and other important observations were also included in the respective themes. As a result, several initial themes emerged which included scarcity, motivations to hoard or hide, competition among consumers, delaying

decision making, store policies, the store's untidy ambience, levels of hiding, employees' reactions to hoarding, retail employees' personal involvement with the customers, and the role of gender. These themes were then reviewed to determine how they were relevant in explaining the phenomenon of perceived scarcity, urgency to buy, in-store hoarding, and in-store hiding behaviors. As a result, several initial themes, such as personal involvement with the customers and employees' reactions to hoarding were discarded. In the end, four major themes - perceived scarcity, urgency to buy, in-store hoarding, and in-store hiding - emerged that examined consumer buying behavior to the conditions of perceived scarcity. Finally, responses were reread and categorized into one of the four themes to ensure goodness of fit (Patton 1990).

Findings

Perceived Scarcity

All the consumers interviewed during the qualitative inquiry agreed to have realized the perception of scarcity and that it was strategically created by the fast fashion retailers. As per Sarah, "When buying at these fast fashion stores I pretty much understood that there were only a limited number of products per size, style, and color. I was also well aware that this scarcity was deliberately created by the retailer. Also at these stores, the stuff sells really fast. They not only keep limited quantities but also keep bringing new stuff and do not intend to keep it on the shelf for long." Similar perceptions of scarcity were observed in interviews with males. For example, Sam said that while shopping at these fast fashion stores, the products of interest were often scarce or already gone from the store, thus emphasizing the perception of scarcity that these stores had created. "In this store, there is this perception of scarcity as I don't know if there will be anymore coming in. They get shipments almost every day and it is like limited quantity

so it is not like I can get what I want. If I like a shirt, there are not 20 items." Similar insights also emerged during the observations where a few consumers while buying in fast fashion stores were heard saying "it's so cute but not in my size" or "grab it or it won't be there," thus suggesting a perception of scarcity in the consumer's mind.

An interview with Paco Underhill provided rich insights about how these fast–fashion stores operate. "These fast fashion stores, for example, Zara and Mango, have much shorter supply chains and therefore there is turnover of merchandise on the floor that is done weekly and also on a daily basis (if you are a larger store and get heavy traffic), so you have a certain percentage of product for the season and certain percentage of product that turns over weekly or daily. From the consumer perspective, these strategies definitely create a sense of product shortage in the store." One of the other themes that emerged in his interview was "perceived freshness." As per him, "No one is buying things at H&M that last a lifetime. H&M sells generally fresh, cheap, disposable products, and therefore they are selling more of a produce or a disposable fashion."

A few consumers also suggested the absence of an online presence for these fast fashion stores added to a perception of scarcity. As per Jennifer, "These stores either don't have a great online presence or sell limited stuff online, thus creating higher perception of scarcity." Some of the consumers also suggested experiencing the perception of scarcity at different store categories which included Halloween stores, electronic stores, bookstores, and even grocery stores. As per Whitney, "The Halloween stores definitely create a perception of scarcity in my mind as they have only one in every size."

Consumers also shared different emotions that they experienced while shopping at these stores, which were aroused due to the environment that these stores intentionally created. Some of the emotions that emerged included sudden excitement, competitive arousal, satisfaction, stress, and a sense of achievement. “You walk into H&M and you see all these people in checkout lines, tons of people waiting to try clothes, and then you freak out. These stores intentionally create this crazy environment that makes consumers buy. I always get high when I am shopping at H&M. I wish these stores had more cash registers and fitting rooms, but they won’t change” (Emily). Similar insights were observed by the researcher while observing consumer behavior at these fast–fashion stores. There were extremely long waiting lines for fitting rooms and at cash registers. Further, a consumer was heard saying, “I was too much stressed while shopping at this store, but look at me I got all I wanted,” thus signaling both stress and a sense of achievement that she experienced throughout the whole process.

Urgency to Buy

Urgency to buy is defined as an urge or a desire of the consumer to buy the product right away, thus limiting consumers’ freedom to delay a buying decision. This definition was well supported across most of the interviews. Paco Underhill mentioned urgency in consumer buying behavior, “So someone walks in these fast fashion stores and sees something that they like, they are trained to buy it because it may not be there next week, thus creating that urgency in their buying behaviors.” Similar insights emerged from the interviews with the consumers. As per Jill, “While shopping at these fast fashion stores I pretty much realized that I should get them (products) now, otherwise they may not be here in future. Definitely there is that sense of urgency as you don’t

know if the products be there if you come back." Further, Madeline provided a similar insight which focused on "buy now or you won't get it tomorrow," thus reflecting urgency from a consumer's point of view. "I go to this fast fashion store every week and I feel like if I don't buy it right now, might be I won't get it in two weeks from now. Whereas in the department store you will find the same thing on the aisle even after a year and hence I don't get that sense of urgency."

In–store Hoarding Behaviors

Rich insights related to in-store hoarding were provided by consumers who admitted to having indulged in this behavior at most fashion stores, and also noted that they indulged in such behaviors more at fast fashion stores than at other apparel stores**.** Some of the key motivations for in-store hoarding at these fast fashion stores included the perception of scarcity, desire to possess products of interest, avoidance of competition from other shoppers, sense of urgency, and ease and efficiency. For Martha, the implicit scarcity signals given by these stores lead to in-store hoarding, which she defined as holding on to things that she was interested in and deciding about them afterwards. "When I shop at these stores, I find styles to be fashionable but at the same time they are scarce. I just grab on to them else I won't get them in the near future. I generally hoard 12-15 items in this store, which is way more as compared to any other store." Emily also supported the above view, "If you like a shirt which is one of them in your size, you will definitely hold on to it."

Competition was another persistent theme that emerged in most of the interviews and most of consumers agreed that one of the key motivations to hoard products was to avoid competition from other consumers. "If I like a product, I will hold on to it as other

consumers are also trying to get it, which makes me feel nervous. I don't want other people to get what I am getting. If it was not scarce, I would have not been concerned about the competition." A few of the interviews also suggested urgency to buy leading to in-store hoarding behaviors. As per Sarah, "If you are looking to buy the product right away, then hoarding behaviors make more sense because you want to get more things in the cart as one of them might work out. So you will increase your odds of finding what might work out right now." A few interviewees also associated hoarding behaviors with planned shopping. As per Jill, "I definitely do hoarding when I need clothes. So when I go to shop for work clothes (I know I need work clothes and I need them right now) and I know the items in the store are not that abundant, I get few skirts, couple of jackets, some heels, and then I finalize from my hoard (see how the skirt, the jacket, and the pair of heels are coming along together) because I need to purchase something from that shopping trip." Further, two interviewees suggested that ease and efficiency led to in-store hoarding behaviors. According to Hailey, "When you are going to a store, you just grab things to try. It is easier to hold on to the things and go to the dressing room to try it on at one time rather than going to a dressing room multiple times, which is tiring and a waste of time." Similar insights related to in-store hoarding were noted during the observational research. Most of the shoppers had their hands full, thus signaling in-store hoarding behaviors. Such behaviors were not seen in non-fast fashion stores as consumers were rarely observed carrying many items.

Surprisingly, unlike their conventional roles, males exhibited behaviors like in-store hoarding when subjected to conditions of perceived scarcity. Further, their in-store hoarding motivations were quite similar to those of females, thus suggesting the rise of a

new hegemonic masculinity, a phenomenon where males are getting concerned about their appearance. All males interviewed for the study had concerns about their appearance management and related dressing to success. According to Max, "I see television shows where successful men are dressed up in nice suits, nice ties, and nice shoes. So I just think I want to look like that guy. Good appearance does make you feel confident and successful." Similar insight about the rise of a "new male" was provided by Paco Underhill, "What we are seeing is a younger generation of males that are much more comfortable with the shopping process and are often shopping in units of 3–4 people together. They are using stores as a way to identify themselves."

The interviews with males also suggested that the number of items hoarded by males was less as compared to females. For example, while shopping, holding onto 4-5 items was considered hoarding by males whereas females hoarded up to 12-15 items. As per Sam, "If I am shopping in other stores, hoarding items is unusual. But at this particular store, due to the sense of scarcity that is communicated, I generally hoard 4-5 items. I will try these clothes multiple times and then usually buy one of those." A few males also suggested indulging in hoarding behaviors at grocery stores, hoarding on to items that they perceived as scarce. "At a grocery store, if I like a certain Powerade but at the same time there are not always many of them, then I will take the Powerade though I may not purchase it but will walk around with it in my cart or basket and later decide whether to buy it or not" (Phillip). Some other popular categories where males hoarded items included video stores and electronic stores.

Consumers, especially females, also noted different emotions experienced due to their indulgence in hoarding behaviors. These emotions included excitement, anxiety,

happiness, and satisfaction. As per Lola, “Hoarding a product makes me happy. It is more exciting and satisfying because I am sure by hoarding I will definitely end up buying something.” “I think it makes me really happy if I am at store and holding on to 20 items for two hours. The whole experience is quite satisfying” (Katie).

In-Store Hiding Behaviors

Interestingly, the phenomenon of in-store hiding behavior did not emerge from any of the interviews conducted with store managers but was a consistent theme across most of the consumer interviews. Also, Paco Underhill’s comments indicated that the retail industry did not acknowledge hiding behaviors. However, according to most of the consumers, hiding behavior was defined as an intentional act of removing the desired product from other consumers’ sight and, hence, a functional way to increase the odds of buying the desired item later. Some of the favorite hiding strategies included hiding the item behind the rack or under the table, hanging a garment under another one, and putting the item in a wrong place. Similar to in-store hoarding, most consumers said that they indulged in this behavior at most fast fashion stores, and much less so at other types of stores. Some key motivations for indulging in hiding behaviors at fast fashion stores were similar to those of in-store hoarding and included the perception of scarcity, the desire to possess products of interest, and the avoidance of competition from other shoppers, and were consistent across both males and females. As per Philip, “I wouldn’t need the feel to hide if there were five others in my size, but if it is the only item that I found that is in my size, than I really want to hide it.” Similar insights that scarcity leads to hiding were reflected from most of the interviews. Also, across interviews, competition avoidance

was a consistent theme as most of the interviewees mentioned the fear that somebody might possess or buy the desired product, leading to their hiding behaviors.

However, across interviews, some new motivations to indulge in in-store hiding behaviors also emerged, which included delaying the buying decision, store policies, messy ambience of the store, and irresponsive employees. For Hailey, avoiding risk or delaying the buying decision along with competition from other shoppers was the biggest motivator to hide. “If I have clothing that I might be interested in but not ready to buy right away or I need to make decision about that after looking at other options across stores, then I might hide it somewhere. By hiding I am putting off or delaying the decision and actually buying myself more time to make a decision.” Similar insights were provided by Sarah, “If you are not having immediate desire to purchase then you might end up hiding the product because it is like I am interested in this but I don’t need it right now. Maybe I will get a better deal somewhere else or maybe I will find a product that works better for me as I don’t need the product right away.”

A few consumers also mentioned store policies in facilitating in-store hiding behaviors, thus emphasizing the manager/consumer differences in the awareness of hiding. For example, for Jill, strict return policies and a store’s unwillingness to hold items lead to hiding behaviors. “While shopping, if I can’t put the item on hold, then I actually indulge in hiding it. Also, stores like Forever 21 have a strict return policy, so it is not like I can buy it and if I change my mind then take it back. Thus if stores do not offer lenient return policies and also cannot put things on hold, then my only choice is to hide the product.” One interesting finding that emerged across the interviews was the messiness of the store and how it led to in-store hiding behaviors. According to Sarah,

"In an organized store, it will be difficult to hide things. However, in a chaotic store it is a little easier to hide things because the store is disorderly and the chances of masking the product from other consumers and even from the sales associates are more. In these stores, the stuff is at the wrong place, and therefore hiding things at such stores will be comparatively easier than in stores where things are kept clean or organized." Employee involvement was another key motivation for enhancing in–store hiding behaviors among consumers. "I think employees at this store cannot keep up with putting things in the right place. It actually helps me with hiding because I know it is likely to stay hidden because it is so jumbled up in the store. However, I would have not done this behavior at a store where the employees were doing their job and walking around all the time. It would really embarrass me if they noticed it and questioned me"(Jenifer). Further, Martha noticed her anti-hiding philosophy, which represents an economic perspective of shopping apparently held by the industry. According to her, "I do my shopping homework before going to the store, so don't need to go to the other stores to compare items and prices and thus I don't exhibit in-store hiding behaviors."

The findings also revealed consumers' psychology of first hoard and then hide. Participants who hid often mentioned in-store hoarding as an initial response to the product scarcity followed by in-store hiding. As per Emily, "Hoarding behavior is sort of my initial behavior. I walk through the store and hoard things I like. I will then try them on and at that point I have much smaller number left because I eliminated those that I didn't like. So at that point, when I have three to five items, I will consider hiding them as I want to evaluate what other stores have to offer." Most consumers also described in–store hoarding behavior as risk–averse behaviors which added to their motivation to

hoard than hide. As per Madeline, “I will hoard more when I am shopping as you can just put the product in the cart, hold on to it, and have it…you can possess it for a while. However when you hide it, then there is a possibility that it could be taken by someone else. So I guess with hiding there is more uncertainty, you don’t know it will be there. So hoarding is safe, as you have the product in possession with you.”

Interestingly, males also mentioned similar in-store hiding behaviors in different store categories like electronics stores, grocery stores, and book stores. As per the male respondents, these stores communicated the sense of scarcity to them thus leading to deviant behaviors like in-store hiding. For example, Adriel suggested, “If in a grocery store I find a product (for example, noodles) that has lot of varieties/flavors and there is less of one then I think maybe it’s the most popular flavor, it tastes better and everyone likes it. So I plan to purposely hide it in other areas, for example, in the bread section where it will go unnoticed because that one type of noodle will soon go out of stock.”

Further, when asked that how often they were successful in retrieving the hidden product, most participants said that the chances of getting the hidden product were very high in the short-term as compared to the long-term, thus seeing in-store hiding as an effective short-term strategy. Participants who hid the products in the store also expressed satisfaction and an achievement of winning the shopping game. For example, for Sarah, putting the things on the back of the rack made her feel better. For Philip, in–store hiding was a way to show that he was a smart shopper, “By hiding the product, you think you are smart, you are beating the system and you can still purchase it.” Also, a few participants suggested hiding as a coping strategy that helped them deal with the pressures that these scarce environments created.

Summary

The above exploratory inquiry provides an in–depth understanding of how consumers respond to the unique scarcity environments that are strategically created by fast fashion retailers. The study suggests that while shopping, when consumers perceive product scarcity, they develop an urge to buy the product that further leads to deviant and competitive behaviors like in-store hoarding and in-store hiding. As consumers perceive these scarce products as unique and, consequently, as irreplaceable, the fear of losing these products to other consumers increases the desire for control over products, thus generating deviant and competitive consumer behavior in response. Engaging in such behaviors facilitates risk-avoidance behaviors and results in less willingness to share the scarce products with other consumers, thus providing a sense of security, achievement, happiness, satisfaction, and possession-defined success (Frost and Gross 1993).

The findings also reveal that in-store hoarding behaviors are initial responses to the limited product offerings that are strategically created by the retailer, which may be followed by in-store hiding behaviors. Retailers, by adopting fast fashion strategies and deliberately manipulating product scarcity within their stores, communicate signals like *buy now or it won't last till tomorrow* which threaten the consumers' freedom to delay a buying decision, thus triggering psychological reactance (Clee and Wicklund 1980) and encouraging them to take immediate actions like in-store hoarding behaviors to safeguard their behavioral freedom. However, at the same time, consumers do want to explore the different choices offered in the marketplace and thus use in-store hiding behaviors, as by doing so they are able to buy time and, thus, delay decision making on the previously hoarded item. The qualitative findings further suggest that the hiding practices are further

enhanced by strict store return policies, unwillingness of the store to hold the product, and the store's messy ambience (or spatial crowding).

The findings also provide an initial understanding of how young males react to the conditions of perceived scarcity. The findings suggest that males exhibit behaviors like in-store hoarding and in-store hiding, both of which are different from their stereotypical behaviors. These findings thus add to the growing literature of masculinity and fashion and resonate the rise of a *new hegemonic masculinity* (Patterson and Elliott 2002), which includes a feminization of masculinity, a phenomenon where males are getting concerned about their appearance (Otnes and Zayer 2012; Ostberg 2009; Sturrock and Pioch 1998).

Study 4: Quantitative Analysis

Before conducting the analysis, the data were checked for skewness. Most of the constructs, except for urgency to buy and in–store hiding, exhibited normal distributions. Both urgency to buy and in–store hiding exhibited positive skewness, which were removed by taking log transformations. As a first step, exploratory factor analysis of all the constructs was conducted. Exploratory factor analysis in conjunction with item-to-total correlations, and coefficient alphas was used to assess the internal consistency of the measurement scales consistent with the recommendations by Churchill (1979). For each construct, factor analyses found one–factor solutions for all constructs except perceived scarcity, which had a two-factor solution: perceived scarcity factor 1(PSF1) and perceived scarcity factor 2 (PSF2). The two-factor solution was supported by the Scree–Test as advocated by Cattell (1965). A principal axis rotation with promax rotation (done for larger samples) verified the existence of two factors.

Following Anderson and Gerbing (1988), the measurement model measuring all the different constructs was assessed through structural equation modeling. A confirmatory factor analysis was conducted to test the adequacy and fit of the measurement model with the observed data. The overall fit of the model was adequate (χ^2 (1824) = 3417.15, $p < 0.05$, CFI = 0.817, RMSEA = 0.051, and SRMR = 0.071; Hu and Bentler 1999). The significant chi–square p–value should not be mistaken for a bad model fit as large samples tend to be associated with small and significant p–values (Raykov and Marcoulides 2006). Further, to reduce the sensitivity of χ^2 to sample size, normed chi–square was calculated (χ^2/df), which for the above model was 1.87. Bollen (1989) suggests the value of the normed chi–square of 2.0, 3.0, or even high as 5.0 as acceptable and hence a value of 1.87 indicates a reasonable fit. However, the CFI did not exceed the recommended 0.90 threshold level (Bollen 1989; Hoyle and Panter 1995; Hu and Bentler 1999), but RMSEA was below the recommended 0.06 threshold level (Hu and Bentler 1999) and SRMR was below the recommended 0.08 threshold level (Kline 2005), thus suggesting a good overall fit.

Convergent validity and discriminant validity was assessed by the CFA (Anderson and Gerbing 1988; Campbell 1979). Convergent validity of the measure is provided by the extent to which it correlates highly with other methods designed to measure the same construct. As per Anderson and Gerbing (1988), it can be assessed from the measurement model (CFA) by determining whether each indicator's estimated pattern coefficient on its posited underlying construct factor is significant (greater than twice its standard error). So, if CFA results indicate all items load significantly on their hypothesize constructs, then convergent validity will be fulfilled. An examination of the

indicator loadings indicated that all were significant, thus suggesting convergent validity (see table 4.2). On the other hand, discriminant validity is the extent to which latent variable A discriminates from the other latent variables (e.g., B, C, D). Using Fornell and Larcker (1981) method for assessing discriminant validity, average variance extracted (AVE) for each construct was compared with the shared variance between the constructs. For all measures, the test results consistently indicated that the AVE for each construct was greater than its shared variance with any other construct, thus establishing the discriminant validity. Given that the exploratory factor analysis had suggested two factors for perceived scarcity, PSF1 and PSF2, the CFA further assessed them as two different constructs. The shared variance between PSF1 and PSF2 was 0.56, which was less than the AVE extracted for PSF1 (0.60) and AVE extracted for PSF2 (0.57), thus suggesting them as two distinct constructs. Further, the Cronbach's alphas for PSF1, PSF2, urgency to buy, impulse buying, anticipated regret, in-store hoarding, in–store hiding, competitiveness, hedonic shopping motivation, and need for uniqueness were 0.77, 0.72, 0.69, 0.81, 0.79, 0.75, 0.84, 0.82, 0.88, and 0.69 respectively, thus indicating an acceptable reliability (Nunnally 1978). Table 4.3 shows a summary of constructs correlations and descriptive statistics.

Table 4.2
Scale Item-Construct Loading of Constructs

Constructs	Item-construct loading standardized
Perceived Scarcity Factor 1	
While shopping in this store,	
I found that this store sells out fast and rarely resells the same merchandise/product.	0.63
I think that the retailer intentionally creates the product scarcity by limiting product quantity for a particular size/style.	0.84
I thought that product scarcity was strategically created by store policies.	0.83
Perceived Scarcity Factor 2	
While shopping in this store,	
I found that there were a limited number of products per size, style, and color.	0.75
I found that the products of interest were often scarce in my size.	0.79
I found that the styles or the products that I was interested in were almost out of stock.	0.72
Urgency to Buy	
While shopping in this store, when I found products of interest,	
I developed a desire to buy them immediately.	0.51
I had an urge to buy them even though I had not intended to purchase them.	0.71
I couldn't resist buying them.	0.74
Impulse Buying	
While shopping in this store,	
I bought products of interest spontaneously.	0.68
When I found products of interest, I bought them without considering the consequences.	0.84
I bought products of interest without thinking.	0.84
Buy now, think about it later describes me.	0.59
Anticipated Regret	
While shopping in this store,	
I feel like I would experience regret if I waited and ended up without the desired product.	0.86
I would be upset if I missed buying some products of interest.	0.89
I feel like if I missed buying the product of interest right	0.75

away, I would regret it later.	
In-store Hoarding	
While shopping in this store, When I found products of interest in this store, I hurried to grab them and kept them to myself while shopping.	0.67
Sometimes when I selected a product at this store, I did not want to put it down although I was not sure if I would buy it or not.	0.73
I have carried more products than what I intended to buy.	0.73
In-store Hiding	
When I have found products of interest in this store, I have purposely hidden them within the store in secret hiding places so that other customers might not buy them.	0.86
I have hidden them somewhere where they did not belong originally.	0.88
I have put them in completely different section where nobody else could see.	0.91
I have hidden items so that they would be available to me later.	0.92
Competitiveness	
I enjoy competition more than others.	0.72
I feel that it is important to outperform others.	0.74
I enjoy testing my abilities against others.	0.69
I feel that winning is extremely important.	0.80
Hedonic Shopping Motivation	
Shopping is truly a joy for me.	0.89
While shopping, it truly feels like an escape for me.	0.87
While shopping, I enjoy being immersed in exciting new products.	0.61
Compared to other things done, the time spent shopping is truly enjoyable.	0.90
While shopping, I have a good time because I am able to act on the "spur-of-the-moment."	0.54
During shopping, I feel the excitement of the hunt.	0.77
While shopping, I feel a sense of adventure.	0.80
Need for Uniqueness	
Often, when buying merchandise, an important goal is to find something that reflects my unique style.	0.62
I actively seek to develop my personal style by buying special products or brands.	0.83
I often try to avoid products or brands that I know are bought by the general population.	0.53

Table 4.3
Correlations and Descriptive Statistics

		1	2	3	4	5	6	7	8	9	10
1	PSF1	1.00									
2	PSF2	0.54**	1.00								
3	Urgency to buy	0.07	0.00	1.00							
4	Impulse buying	0.04	0.00	0.67**	1.00						
5	Anticipated regret	0.26**	0.16**	0.62**	0.48**	1.00					
6	In-store hoarding	0.16**	0.07	0.68**	0.55**	0.66**	1.00				
7	In-store hiding (log)	0.28**	0.24**	0.33	0.28**	0.44**	0.40**	1.00			
8	Competitiveness	0.10	0.06	0.09	0.05	0.20**	0.08	0.06	1.00		
9	Hedonic shopping motivation	0.13*	-0.03	0.59**	0.47**	0.56**	0.56**	0.30**	0.08	1.00	
10	Need for uniqueness	0.20*	0.05	0.34**	0.25**	0.38**	0.30**	0.10	0.25**	0.52**	1.00
	Mean	3.89	3.66	4.93	4.21	4.05	4.55	0.32	4.46	4.76	4.95
	Standard Deviation	1.28	1.00	1.08	1.14	1.53	1.31	0.26	1.21	1.31	1.14
	Maximum	1	1	1	1.17	1	1	0	1	1.14	2.33
	Minimum	7	6.50	7	7	7	7	0.85	7	7	7

* $p < 0.05$ **$p < 0.01$

Hypotheses Testing and Findings

Having validated the measurement model, the proposed hypotheses were tested. Given, that the current study hypothizes that perception of perceived scarcity created due to strategically–imposed environments to be different from the perception created due to a scarce situation not necessary strategically created by the retailer, both PSF1 and PSF2 were separately analyzed. PSF1 represents "supply side scarcity" that arises when the retailer deliberately controls the supply of the product in the marketplace, i.e. supply is limited intentionally by inducing both limited quantity and limited time scarcity. On the other hand, PSF2 just represents a limited quantity scarcity situation, and based on the items, the origin of limited quantity scarcity is also not clear. Quantitative scarcity can arise due to changes in supply or demand (Gierl, Plantsch, and Schweidler 2008) but the items used to measure PSF2 fail to suggest the origin of limited quantity scarcity. Looking at the items, one can easily infer that the limited quantity situation could have arisen due to factors like high consumer demand for the product thus leading to stock depletion (demand side scarcity) rather than the retailer intentionally limiting the supply

of the product. Further, exploratory factor analysis and confirmatory factor analysis suggested PSF1 and PSF2 to be different, thus bolstering our argument for separate analyses.

Also, the effects of method variance were controlled by using the partial correlation method (Podsakoff et al. 2003). The appropriate method for removing common method bias is to average the correlations of the composite social desirability measure and the different constructs, then to partial that score out of the other relationships. Correlations were run between a composite social desirability measure (BIDR scale) and the different constructs as shown below:

Correlation between composite BIDR scale and PSF1 = 0.09 ($p < 0.05$)

Correlation between composite BIDR scale and Anticipated Regret = 0.07 ($p < 0.05$)

Correlation between composite BIDR scale and Urgency to Buy = 0.10 ($p < 0.05$)

Correlation between composite BIDR scale and In–store Hoarding = 0.05 ($p < 0.05$)

Correlation between composite BIDR scale and In–store Hiding = 0.09 ($p < 0.05$)

Correlation between composite BIDR scale and Competitiveness = 0.08 ($p < 0.01$)

Correlation between composite BIDR scale and Hedonic Shopping Motivations = 0.08 ($p < 0.05$)

Correlation between composite BIDR scale and Need for Uniqueness = 0.07 ($p < 0.01$)

The average correlation of the above correlations is 0.08 which was then partialled out from all the different proposed relationships. There were also several variables that were controlled in this study, especially when conducting analyses for H1, H2, H3, and H4. These variables included frequency of visit to a favorite store, time spent within a favorite store, disposable income spent on buying clothes, and

demographic variables like age, ethnicity, family income, education, marital status, and setting. A consumer who frequently visits his/her favorite fast–fashion store and spends a lot of time within that store will definitely have a better understanding of strategically created product scarcity and hence, is more likely to exhibit behaviors like urgency to buy, in–store hoarding, and in–store hiding. Similarly, a consumer who spends most of his/her disposable money on buying clothes is more likely to exhibit in–store hoarding and in–store hiding as compared to a consumer who is less interested in spending money on buying clothes. Demographic variables were also controlled so that the proposed relationships were not confounded by the individual differences of the consumers. Controlling for all these variables allows measuring more accurately the impact of the theorized model.

To test H1, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between PSF1 and urgency to buy exists. Variables that explain urgency to buy were entered in three steps. In step 1, urgency to buy was the dependent variable and frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes were the independent variables. In step 2, the demographic variables like age, ethnicity, family income, education, marital status, and setting were entered into the step 1 equation. In the final step, items measuring PSF1 were entered into the equation. Before the hierarchical multiple regression analysis was performed, the independent variables were examined for collinearity. Results of the variance inflation factors (all less than 2.0), and collinearity tolerances (all greater than 0.76) suggest that the estimated βs are well established in the following regression model.

The results of step 1 indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) was 0.21 (adjusted R^2 = 0.21), which was significantly different from zero ($F_{(3, 308)} = 26.64$, $p < 0.01$). All three independent variables were statistically significant (see table 4.4). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.01, which was significantly different from zero ($F_{(9,302)} = 9.48$, $p < 0.01$). Frequency of visit to a favorite store, time spent within a favorite store, disposable income spent on buying clothes, and age were the only statistically significant independent variables. In step 3, PSF1 was also entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.02, which was significantly different from zero ($F_{(10,301)} = 9.06$, $p < 0.01$). Frequency of visit to a favorite store, time spent within a favorite store, disposable income spent on buying clothes, age, and PSF1 were statistically significant independent variables predicting urgency to buy. Thus, the results suggest that PSF1 contributed significantly to the explanation of urgency to buy.

Table 4.4
Hierarchical Multiple Regression Analysis Relating PSF1 and Urgency to Buy

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.45**	**0.21**	**0.21**	**26.64****	**26.44****
Frequency of visit to the store	0.17** (0.01)					
Disposable income	0.26** (0.03)					
Time spent	0.22** (0.00)					
Step 2		**0.47**	**0.22**	**0.01**	**9.48****	**0.91**
Frequency of visit to the store	0.16** (0.01)					
Disposable income	0.25** (0.03)					
Time spent	0.22** (0.00)					
Age	-0.10** (0.05)					
Ethnicity	0.03 (0.05)					
Family income	0.04 (0.08)					
Education	0.01 (0.14)					
Marital	0.07 (0.57)					
Setting	0.03 (0.08)					
Step 3		**0.48**	**0.23**	**0.02**	**9.06****	**4.33****
Frequency of visit to the store	0.16** (0.01)					
Disposable income	0.25** (0.03)					
Time spent	0.22** (0.00)					
Age	-0.11** (0.05)					
Ethnicity	0.02 (0.05)					
Family income	0.05 (0.08)					
Education	0.01 (0.14)					
Marital	0.06 (0.57)					
Setting	0.02 (0.08)					
PSF1	0.11* (0.04)					

* $p < 0.05$ **$p < 0.01$
We report the standard error in parentheses and one-tailed tests for hypothesized effects

Similarly, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between PSF2 and urgency to buy exists. Variables that explain urgency to buy were entered in three steps. The first two steps were similar as above; however, in the third step items measuring PSF2 were entered. The results of step 1 indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) equaled 0.20 (adjusted $R^2 = 0.20$), which was

significantly different from zero ($F_{(3, 309)} = 26.43$, $p < 0.01$). All three independent variables were statistically significant (see table 4.5). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.02, which was significantly different from zero ($F_{(9,303)} = 9.39$, $p < 0.01$). Frequency of visit to a favorite store, time spent within a favorite store, disposable income spent on buying clothes, and age were the only statistically significant independent variables. In step 3, when PSF2 was also entered into the regression equation, the change in variance accounted for (ΔR^2) was equal to 0.005 which was significantly different from zero ($F_{(10,302)} = 8.67$, $p < 0.05$). However, the results of the full model did not find PSF2 to be a significant predictor of urgency to buy. Thus, the results suggest a non–significant relationship between PSF2 and urgency to buy.

Table 4.5
Hierarchical Multiple Regression Analysis Relating PSF2 and Urgency to Buy

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.45**	**0.20**	**0.20**	**26.43****	**26.43****
Frequency of visit to the store	0.18** (0.01)					
Disposable income	0.26** (0.03)					
Time spent	0.22** (0.00)					
Step 2		**0.47**	**0.22**	**0.02**	**9.39****	**0.90**
Frequency of visit to the store	0.17** (0.01)					
Disposable income	0.25** (0.03)					
Time spent	0.22** (0.00)					
Age	-0.09** (0.05)					
Ethnicity	0.03 (0.05)					
Family income	0.04 (0.08)					
Education	0.00 (0.14)					
Marital	0.07 (0.57)					
Setting	0.03 (0.08)					
Step 3		**0.47**	**0.22**	**0.00**	**8.67***	**1.92**
Frequency of visit to the store	0.18** (0.01)					
Disposable income	0.24** (0.03)					
Time spent	0.22** (0.000					
Age	-0.10** (0.05)					
Ethnicity	0.03 (0.05)					
Family income	0.05 (0.08)					
Education	0.00 (0.14)					
Marital	0.07 (0.57)					
Setting	0.03 (0.08)					
PSF2	0.07 (0.06)					

* $p < 0.05$ **$p < 0.01$
We report the standard error in parentheses and one-tailed tests for hypothesized effects

To examine the mediating role of anticipated regret on the relationship between perceived scarcity and urgency to buy, as hypothesized in H2, mediation analysis as suggested by Baron and Kenny (1986) was conducted. The results are presented in table 4.6. In model A, the relationship between the independent variable (PSF1) and the dependent variable (urgency to buy) was positive and significant. Further, as expected, when anticipated regret was included in the model (model B), it significantly influenced urgency to buy, while the effect of PSF1 became insignificant and its impact dropped

insignificantly (Sobel z = 5.16, $p < 0.05$), indicating that anticipated regret fully mediates the effect of PSF1 on urgency to buy, thus, supporting hypothesis 2.

Table 4.6
Mediation Analyses Results (PSF1)

Model	PSF1	Anticipated Regret
A	0.09* (0.04)	
B	-0.04 (0.04)	0.38** (0.03)

The dependent variable for each model is urgency to buy
* $p < 0.05$ **$p < 0.01$

We report the standard error in parentheses and one-tailed tests for hypothesized effects

Similarly, tests of mediation were run to determine whether anticipated regret mediated the effect of PSF2 on urgency to buy. The results are presented in table 4.7. In model A, the relationship between the independent variable (PSF2) and the dependent variable (urgency to buy) was non–significant. As per Baron and Kenny (1986), if a simple regression between independent and dependent variable is non–significant, mediation is not possible thus suggesting that anticipated regret did not mediate the effect of PSF2 on urgency to buy.

Table 4.7
Mediation Analyses Results (PSF2)

Model	PSF2	Anticipated Regret
A	0.08 (0.06)	
B	-0.03 (0.05)	0.37** (0.03)

The dependent variable for each model is urgency to buy
* $p < 0.05$ **$p < 0.01$
We report the standard error in parentheses and one-tailed tests for hypothesized effects

To test H3a, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between PSF1 and in–store hoarding exists. Variables that explain

in–store hoarding were entered in three steps. In step 1, in–store hoarding was the dependent variable and frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes were the independent variables. In step 2, the demographic variables like age, ethnicity, family income, education, marital status, and setting were entered into the step 1 equation. In the final step, items measuring PSF1 were entered into the equation. The results of step 1 indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) equaled 0.21 (adjusted $R^2 = 0.20$), which was significantly different from zero ($F_{(3, 308)} = 26.58$, $p < 0.01$). All three independent variables were statistically significant (see table 4.8). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.02, which was significantly different from zero ($F_{(9,302)} = 9.78$, $p < 0.01$). Frequency of visit to a favorite store, time spent within a favorite store, disposable income spent on buying clothes, and age were the only statistically significant independent variables. In step 3, PSF1 was also entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.09, which was significantly different from zero ($F_{(10,301)} = 11.62$, $p < 0.01$). Frequency of visit to a favorite store, time spent within a favorite store, disposable income spent on buying clothes, age, and PSF1 were statistically significant independent variables predicting in–store hoarding. Thus, the results suggest that PSF1 contributed significantly to the explanation of in–store hoarding.

Table 4.8
Hierarchical Multiple Regression Analysis Relating PSF1 and In-Store Hoarding

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.45**	**0.21**	**0.21**	**26.58****	**26.58****
Frequency of visit to the store	0.15** (0.01)					
Disposable income	0.25** (0.04)					
Time spent	0.24** (0.00)					
Step 2		**0.48**	**0.23**	**0.02**	**9.78****	**1.30**
Frequency of visit to the store	0.14** (0.01)					
Disposable income	0.24** (0.04)					
Time spent	0.24** (0.00)					
Age	-0.11** (0.06)					
Ethnicity	0.00 (0.07)					
Family income	0.07 (0.11)					
Education	0.00 (0.19)					
Marital	0.07 (0.76)					
Setting	0.00 (0.11)					
Step 3		**0.53**	**0.30**	**0.09**	**11.62****	**22.09****
Frequency of visit to the store	0.14** (0.01)					
Disposable income	0.24** (0.04)					
Time spent	0.25** (0.00)					
Age	-0.14** (0.06)					
Ethnicity	-0.02 (0.07)					
Family income	0.10 (0.10)					
Education	-0.00 (0.18)					
Marital	0.06 (0.73)					
Setting	-0.03 (0.10)					
PSF1	0.24** (0.05)					

* $p < 0.05$ **$p < 0.01$
We report the standard error in parentheses and one-tailed tests for hypothesized effects

Similarly, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between PSF2 and in–store hoarding exists. Variables that explain in–store hoarding were entered in three steps. The first two steps were similar as above; however, in the third step items measuring PSF2 were entered. The results of step 1 indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) equaled 0.21 (adjusted $R^2 = 0.21$), which was

significantly different from zero ($F_{(3, 309)} = 26.56$, $p < 0.01$). All three independent variables were statistically significant (see table 4.9). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.01, which was significantly different from zero ($F_{(9,303)} = 9.74$, $p < 0.01$). Frequency of visit to a favorite store, time spent within a favorite store, disposable income spent on buying clothes, and age were the only statistically significant independent variables. In step 3, when PSF2 was also entered into the regression equation, the change in variance accounted for (ΔR^2) was equal to 0.04 which was significantly different from zero ($F_{(10,302)} = 10.09$, $p < 0.01$). However, the results of the full model suggest PSF2 to be not a significant predictor of in–store hoarding. Thus, the results suggest a non–significant relationship between PSF2 and in–store hoarding.

Table 4.9
Hierarchical Multiple Regression Analysis Relating PSF2 and In-Store Hoarding

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.45**	**0.21**	**0.21**	**26.56****	**26.56****
Frequency of visit to the store	0.15** (0.01)					
Disposable income	0.25** (0.04)					
Time spent	0.24** (0.00)					
Step 2		**0.47**	**0.22**	**0.01**	**9.74****	**1.27**
Frequency of visit to the store	0.14** (0.01)					
Disposable income	0.24** (0.04)					
Time spent	0.24** (0.00)					
Age	-0.11* (0.06)					
Ethnicity	0.01 (0.07)					
Family income	0.07 (0.11)					
Education	-0.01 (0.19)					
Marital	0.07 (0.76)					
Setting	0.00 (0.10)					
Step 3		**0.50**	**0.25**	**0.04**	**10.09****	**2.48**
Frequency of visit to the store	0.17** (0.01)					
Disposable income	0.23** (0.04)					
Time spent	0.25** (0.00)					
Age	-0.12* (0.06)					
Ethnicity	-0.01 (0.07)					
Family income	0.09 (0.10)					
Education	-0.02 (0.19)					
Marital	0.07 (0.74)					
Setting	-0.01 (0.10)					
PSF2	0.17 (0.07)					

* $p < 0.05$ **$p < 0.01$

We report the standard error in parentheses and one-tailed tests for hypothesized effects

To test H3b, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between urgency to buy and in–store hoarding exists. Variables that explain in–store hoarding were entered in three steps. In step 1, in–store hoarding was the dependent variable and frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes were the independent variables. In step 2, the demographic variables like age, ethnicity, family income, education, marital status, and setting were entered into the step 1 equation. In the final step, items measuring urgency to buy were entered into the equation. The results of step 1

indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) equaled 0.04 (adjusted $R^2 = 0.04$), which was significantly different from zero ($F_{(3, 309)} = 3.95$, $p < 0.01$). However, none of the three independent variables were statistically significant (see table 4.10). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.01, which was not significantly different from zero ($F_{(9,303)} = 1.58$, $p > 0.05$). In step 3, urgency to buy was also entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.09, which was significantly different from zero ($F_{(10,302)} = 4.54$, $p < 0.01$). Age and urgency to buy were statistically significant independent variables predicting in–store hoarding. Thus, the results suggest that urgency to buy contributed significantly to the explanation of in–store hoarding.

Table 4.10
Hierarchical Multiple Regression Analysis Relating Urgency to Buy and In-Store Hoarding

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.19**	**0.04**	**0.04**	**3.95****	**3.95****
Frequency of visit to the store	0.11 (0.01)					
Disposable income	0.05 (0.04)					
Time spent	0.11 (0.00)					
Step 2		**0.21**	**0.05**	**0.01**	**1.58**	**0.42**
Frequency of visit to the store	0.1 (0.01)					
Disposable income	0.05 (0.04)					
Time spent	0.10 (0.00)					
Age	-0.06** (0.06)					
Ethnicity	0.03 (0.07)					
Family income	-0.04 (0.11)					
Education	0.00 (0.19)					
Marital	-0.01 (0.76)					
Setting	-0.04 (0.10)					
Step 3		**0.36**	**0.13**	**0.09**	**4.54****	**29.83****
Frequency of visit to the store	0.1 (0.01)					
Disposable income	0.04 (0.04)					
Time spent	0.11 (0.00)					
Age	-0.09** (0.05)					
Ethnicity	0.00 (0.05)					
Family income	0.00 (0.08)					
Education	0.01 (0.15)					
Marital	-0.02 (0.60)					
Setting	-0.07 (0.08)					
Urgency to Buy	0.30** (0.06)					

* $p < 0.05$ **$p < 0.01$
We report the standard error in parentheses and one-tailed tests for hypothesized effects

To test H4a, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between PSF1 and in–store hiding exists. Variables that explain in–store hoarding were entered in three steps. In step 1, in–store hiding was the dependent variable and frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes were the independent variables. In step 2, the demographic variables like age, ethnicity, family income, education, marital status, and setting were entered into the step 1 equation. In the final step, items measuring

PSF1 were entered into the equation. The results of step 1 indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) equaled 0.04 (adjusted $R^2 = 0.03$), which was significantly different from zero ($F_{(3, 308)} = 4.20$, $p < 0.01$). Of the three independent variables, only time spent was statistically significant (see table 4.11). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.01, which was not significantly different from zero ($F_{(9,302)} = 1.68$, $p < 0.01$). In step 3, PSF1 was also entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.07, which was significantly different from zero ($F_{(10,301)} = 3.88$, $p < 0.01$). Time spent within a favorite store and PSF1 were statistically significant independent variables predicting in–store hiding. Thus, the results suggest that PSF1 contributed significantly to the explanation of in–store hiding.

Table 4.11
Hierarchical Multiple Regression Analysis Relating PSF1 and In-Store Hiding

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.20**	**0.04**	**0.04**	**4.20****	**4.20****
Frequency of visit to the store	0.11 (0.00)					
Disposable income	0.06 (0.01)					
Time spent	0.12* (0.00)					
Step 2		**0.22**	**0.05**	**0.01**	**1.68**	**0.44**
Frequency of visit to the store	0.09 (0.00)					
Disposable income	0.06 (0.01)					
Time spent	0.11 (0.00)					
Age	-0.06 (0.01)					
Ethnicity	0.02 (0.01)					
Family income	-0.03 (0.02)					
Education	0.00 (0.04)					
Marital	-0.01 (0.15)					
Setting	-0.04 (0.02)					
Step 3		**0.34**	**0.11**	**0.07**	**3.88****	**22.60****
Frequency of visit to the store	0.11 (0.00)					
Disposable income	0.04 (0.01)					
Time spent	0.12* (0.00)					
Age	-0.10 (0.01)					
Ethnicity	0.00 (0.01)					
Family income	-0.01 (0.02)					
Education	0.01 (0.04)					
Marital	-0.02 (0.15)					
Setting	-0.06 (0.02)					
PSF1	0.26** (0.01)					

* $p < 0.05$ **$p < 0.01$
We report the standard error in parentheses and one-tailed tests for hypothesized effects

Similarly, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between PSF2 and in–store hiding exists. Variables that explain in–store hiding were entered in three steps. The first two steps were similar as above; however, in the third step items measuring PSF2 were entered. The results of step 1 indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) equaled 0.04 (adjusted $R^2 = 0.03$), which was

significantly different from zero ($F_{(3, 309)} = 4.20$, $p < 0.01$). Of all the three independent variables, only time spent in the favorite store was statistically significant (see table 4.12). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.01, which was not significantly different from zero ($F_{(9,303)} = 1.68$, $p > 0.05$). In step 3, when PSF2 was also entered into the regression equation, the change in variance accounted for (ΔR^2) was equal to 0.07 which was significantly different from zero ($F_{(10,302)} = 3.76$, $p < 0.05$). Also, the results of the full model suggest PSF2 (besides frequency of visit to the favorite store and time spent in the favorite store) to be a significant predictor of in–store hiding. Thus, the results suggest a significant relationship between PSF2 and in–store hiding.

Table 4.12
Hierarchical Multiple Regression Analysis Relating PSF2 and In-Store Hiding

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.20**	**0.04**	**0.04**	**4.20****	**4.20****
Frequency of visit to the store	0.11 (0.00)					
Disposable income	0.06 (0.01)					
Time spent	0.12* (0.00)					
Step 2		**0.22**	**0.05**	**0.01**	**1.68**	**0.44**
Frequency of visit to the store	0.09 (0.00)					
Disposable income	0.06 (0.01)					
Time spent	0.11 (0.00)					
Age	-0.06 (0.01)					
Ethnicity	0.02 (0.01)					
Family income	-0.03 (0.02)					
Education	0.00 (0.04)					
Marital	-0.01 (0.15)					
Setting	-0.04 (0.02)					
Step 3		**0.33**	**0.11**	**0.07**	**3.76***	**3.51**
Frequency of visit to the store	0.13* (0.00)					
Disposable income	0.04 (0.01)					
Time spent	0.12* (0.00)					
Age	-0.07 (0.001)					
Ethnicity	-0.01 (0.01)					
Family income	-0.01 (0.02)					
Education	-0.01 (0.04)					
Marital	-0.03 (0.15)					
Setting	-0.06 (0.02)					
PSF2	0.21** (0.02)					

* $p < 0.05$ **$p < 0.01$

We report the standard error in parentheses and one-tailed tests for hypothesized effects

To test H4b, a hierarchical multiple regression analysis was conducted to examine if a direct relationship between urgency to buy and in–store hiding exists. Variables that explain in–store hoarding were entered in three steps. In step 1, in–store hiding was the dependent variable and frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes were the independent variables. In step 2, the demographic variables like age, ethnicity, family income, education, marital status, and setting were entered into the step 1 equation. In the final step, items

measuring urgency to buy were entered into the equation. The results of step 1 indicated that the variance accounted for (R^2) with the first three independent variables (frequency of visit to a favorite store, time spent within a favorite store, and disposable income spent on buying clothes) equaled 0.04 (adjusted $R^2 = 0.04$), which was significantly different from zero ($F_{(3, 309)} = 4.20$, $p < 0.01$). However, only time spent in the favorite store was statistically significant (see table 4.13). In step 2, the demographic variables were entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.01, which was not significantly different from zero ($F_{(9,303)} = 1.68$, $p > 0.05$). In step 3, urgency to buy was also entered into the regression equation. The change in variance accounted for (ΔR^2) was equal to 0.10, which was significantly different from zero ($F_{(10,302)} = 5.03$, $p < 0.01$). Urgency to buy was statistically significant independent variable predicting in–store hiding. Thus, the results suggest that urgency to buy contributed significantly to the explanation of in–store hiding.

Table 4.13
Hierarchical Multiple Regression Analysis Relating Urgency to Buy and In-Store Hiding

Predictor Variable	B	R	R^2	ΔR^2	F	ΔF
Step 1		**0.20**	**0.04**	**0.04**	**4.20****	**4.20****
Frequency of visit to the store	0.11 (0.00)					
Disposable income	0.06 (0.01)					
Time spent	0.12* (0.00)					
Step 2		**0.22**	**0.05**	**0.01**	**1.68**	**0.44**
Frequency of visit to the store	0.09 (0.00)					
Disposable income	0.06 (0.01)					
Time spent	0.11 (0.00)					
Age	-0.06 (0.01)					
Ethnicity	0.02 (0.01)					
Family income	-0.03 (0.02)					
Education	0.00 (0.04)					
Marital	-0.01 (0.15)					
Setting	-0.04 (0.02)					
Step 3		**0.38**	**0.14**	**0.10**	**5.03****	**33.57****
Frequency of visit to the store	0.04 (0.00)					
Disposable income	-0.03 (0.01)					
Time spent	0.03 (0.00)					
Age	-0.03 (0.01)					
Ethnicity	0.01 (0.01)					
Family income	-0.05 (0.02)					
Education	0.00 (0.04)					
Marital	-0.03 (0.15)					
Setting	-0.05 (0.02)					
Urgency to Buy	0.35** (0.12)					

* $p < 0.05$ **$p < 0.01$
We report the standard error in parentheses and one-tailed tests for hypothesized effects

To examine the moderating role of competitiveness, three separate multiple regressions were conducted with PSF1 and competition predicting urgency to buy, in–store hoarding, and in–store hiding respectively. For H5a, the regression model did not explain a significant amount of variation in urgency to buy, ($F(3,341) = 1.48$, $p > 0.05$, $R = 0.11$, adjusted $R^2 = 0.004$). Further, the proposed interaction between PSF1 and competition was not supported ($\beta = 0.04$, $p > .05$) (see table 4.14). For H5b, a significant amount of variation in in–store hoarding was explained by the regression model, (F

(3,341) = 5.21, $p < 0.05$, R = 0.21, adjusted $R^2 = 0.04$). However, the proposed interaction between PSF1 and competition was not supported ($\beta = 0.09$, $p > 0.05$). For H5c, a significant amount of variation in in–store hiding was explained by the regression model, (F (3,341) = 12.86, $p < 0.01$, R = 0.32, adjusted $R^2 = 0.09$). Also, the interaction between PSF1 and competition as proposed was supported ($\beta = 0.16$, $p < 0.05$), indicating that the relationship between PSF1 and in–store hiding was stronger for consumers with high levels of competition (r = 0.34) as compared to consumers with low levels of competition (r = 0.06).

Table 4.14
Multiple Regression Analysis for Moderating Role of Competitiveness (PSF1)

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy					0.00
PSF1	0.05	0.05	1.05	0.06	
Competitiveness	0.08	0.05	1.61	0.09	
PSF1 X competitiveness	0.03	0.04	0.80	0.04	
In-store hoarding					0.04
PSF1	0.18	0.06	3.08	0.16**	
Competitiveness	0.11	0.06	1.70	0.09	
PSF1 X competitiveness	0.07	0.05	1.58	0.09	
In-store hiding					0.09
PSF1	0.05	0.01	5.20	0.27**	
Competitiveness	0.01	0.01	0.97	0.05	
PSF1 X competitiveness	0.02	0.01	2.97	0.16**	

* $p < 0.05$ **$p < 0.01$

Similarly, three separate multiple regressions were conducted with PSF2 and competition predicting urgency to buy, in–store hoarding, and in–store hiding respectively. No significant results were found to support the moderating role of competition in influencing relationships between PSF2 and urgency to buy and PSF2 and in–store hoarding (see table 4.15). However, a significant amount of variation in in–store

hiding was explained by the regression model, ($F(3,342) = 7.97$, $p < 0.01$, $R = 0.26$, adjusted $R^2 = 0.06$). Also, the interaction between PSF2 and competition was supported ($\beta = 0.13$, $p < 0.05$), indicating that the relationship between PSF2 and in–store hiding was stronger for consumers with high levels of competition ($r = 0.23$) between PSF2 and in–store hiding as compared to consumers with low levels of competition ($r = 0.06$).

Table 4.15
Multiple Regression Analysis for Moderating Role of Competitiveness (PSF2)

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy					0.00
PSF2	-0.01	0.06	-0.23	-0.01	
Competitiveness	0.09	0.05	1.82	0.10	
PSF2 X competitiveness	0.05	0.05	1.13	0.06	
In-store hoarding					0.01
PSF2	0.11	0.08	1.43	0.08	
Competitiveness	0.12	0.07	1.88	0.10	
PSF2 X competitiveness	0.70	0.06	1.17	0.06	
In-store hiding					0.06
PSF2	0.27	0.08	3.34	0.18**	
Competitiveness	0.16	0.07	2.29	0.12*	
PSF2 X competitiveness	0.16	0.07	2.46	0.13*	

* $p < 0.05$ **$p < 0.01$

Further, to compare Pearson correlation coefficients between PSF1 and in–store hiding and PSF2 and in–store hiding across the two levels of competition (high vs low), a Fisher r to z transformation was conducted. For consumers with a high level of competition, the results suggested significant difference between PSF1 and in–store hiding ($r = 0.34$) and PSF2 and in–store hiding ($r = 0.23$), $z = 1.69$, $p < 0.05$. On the other hand, for consumers with low levels of competition, the results suggested no significant difference between PSF1 and in–store hiding ($r = 0.06$) and PSF2 and in–store hiding ($r = 0.06$), $z = 0.07$, $p > 0.05$. Thus, the results indicate that consumers with high levels of

competition react more strongly to PSF1 as compared to PSF2 whereas these constructs make no difference for consumers with low levels of competition.

To examine the moderating role of hedonic shopping motivation on the relationship between PSF1 and urgency to buy as proposed in H6, a multiple regression was conducted. The regression model did explain a significant amount of variation in urgency to buy, ($F(3,341) = 62.24$, $p < 0.05$, $R = 0.60$, adjusted $R^2 = 0.35$) (see table 4.16). Further the interaction between PSF1 and hedonic shopping motivation was supported ($\beta = 0.11$, $p < 0.05$), indicating that consumers with high levels of hedonic shopping motivation had a less strong relationship ($r = 0.08$) between PSF1 and urgency to buy as compared to consumers with low levels of hedonic shopping motivation ($r = 0.23$), thus supporting H6. Further, to examine the moderating role of hedonic shopping motivation as proposed in H7a and H7b, two separate multiple regressions were conducted with PSF1 and hedonic shopping motivation predicting in–store hoarding and in–store hiding respectively. For H7a, a significant amount of variation in in–store hoarding was explained by the regression model, ($F(3,341) = 59.81$, $p < 0.01$, $R = 0.59$, adjusted $R^2 = 0.34$) (see table 4.16). Also, the proposed interaction between PSF1 and hedonic shopping motivation was supported ($\beta = 0.10$, $p < 0.05$), indicating that consumers with high levels of hedonic shopping motivation had a stronger relationship ($r = 0.24$) between PSF1 and in–store hoarding as compared to consumers with low levels of hedonic shopping motivation ($r = 0.12$). Further for H7b, a significant amount of variation in in–store hiding was explained by the regression model, ($F(3,341) = 25.40$, $p < 0.01$, $R = 0.43$, adjusted $R^2 = 0.18$). Also, the interaction between PSF1 and hedonic shopping motivation as proposed was supported ($\beta = 0.19$, $p < 0.01$), indicating that

consumers with high levels of hedonic shopping motivations had a stronger relationship (r = 0.35) between PSF1 and in–store hiding as compared to consumers with low levels of hedonic shopping motivation (r = 0.03).

Table 4.16
Multiple Regression Analysis for Moderating Role of Hedonic Shopping Motivation (PSF1)

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy					0.35
PSF1	-0.03	0.04	-0.69	-0.03	
Hedonic shopping motivation	0.49	0.04	13.45	0.59**	
PSF1 X hedonic shopping motivation	0.06	0.03	2.36	0.11**	
In-store hoarding					0.34
PSF1	0.09	0.05	1.83	0.08	
Hedonic shopping motivation	0.61	0.05	12.66	0.56**	
PSF1 X hedonic shopping motivation	0.08	0.04	2.19	0.10*	
In-store hiding					0.18
PSF1	0.04	0.01	3.98	0.20**	
Hedonic shopping motivation	0.05	0.01	5.61	0.28**	
PSF1 X hedonic shopping motivation	0.03	0.01	3.70	0.19**	

* $p < 0.05$ **$p < 0.01$

Similarly, three separate multiple regressions were conducted with PSF2 and hedonic shopping motivation predicting urgency to buy, in–store hoarding, and in–store hiding respectively. No significant results were found to support the moderating role of hedonic shopping motivation in influencing relationships between PSF2 and urgency to buy and PSF2 and in–store hoarding. However, a significant amount of variation in in–store hiding was explained by the regression model, ($F(3,342) = 23.78$, $p < 0.01$, $R = 0.42$, adjusted $R^2 = 0.17$) (see table 4.17). Also, the interaction between PSF2 and hedonic shopping motivation was supported ($\beta = 0.11$, $p < 0.05$), indicating that consumers with high levels of hedonic shopping motivation had a stronger relationship (r

= 0.23) between PSF2 and in–store hiding as compared to consumers with low levels of hedonic shopping motivation (r = 0.08).

Table 4.17
Multiple Regression Analysis for Moderating Role of Hedonic Shopping Motivation (PSF2)

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy					0.34
PSF2	0.02	0.05	0.33	0.01	
Hedonic shopping motivation	0.48	0.04	13.38	0.59**	
PSF2 X hedonic shopping motivation	0.02	0.03	0.70	0.03	
In-store hoarding					0.33
PSF2	0.15	0.06	2.31	0.10*	
Hedonic shopping motivation	0.63	0.05	13.03	0.57**	
PSF2 X hedonic shopping motivation	0.06	0.04	1.42	0.06	
In-store hiding					0.17
PSF2	0.31	0.08	4.08	0.20**	
Hedonic shopping motivation	0.41	0.06	7.06	0.35**	
PSF2 X hedonic shopping motivation	0.12	0.05	2.23	0.11*	

* $p < 0.05$ **$p < 0.01$

Further, to compare Pearson correlation coefficients between PSF1 and in–store hiding and PSF2 and in–store hiding across the two levels of hedonic shopping motivation (high vs low), a Fisher r to z transformation was conducted. For consumers with high levels of hedonic shopping motivation, the results suggested a significant difference between PSF1 and in–store hiding (r = 0.35) and PSF2 and in–store hiding (r = 0.23), z = 1.77, $p < 0.05$. On the other hand, for consumers with low levels of hedonic shopping motivation, the results suggested no significant difference between PSF1 and in–store hiding (r = 0.03) and PSF2 and in–store hiding (r = 0.08), z = – 0.60, $p > 0.05$. Thus, the results indicate that consumers with high levels of hedonic shopping motivations react more strongly to PSF1 as compared to PSF2 whereas these constructs make no difference for consumers with low levels of hedonic shopping motivation.

To examine the moderating role of need for uniqueness, three separate multiple regressions were conducted with PSF1 and need for uniqueness predicting urgency to buy, in–store hoarding, and in–store hiding respectively. For H8a, the regression model did explain a significant amount of variation in urgency to buy, ($F(3,341) = 16.36$, $p < 0.01$, $R = 0.36$, adjusted $R^2 = 0.12$) (see table 4.18). However, the proposed interaction between PSF1 and need for uniqueness was not supported ($\beta = 0.10$, $p > .05$), thus H8a was not supported. For H8b, a significant amount of variation in in–store hoarding was explained by the regression model, ($F(3,341) = 19.09$, $p < 0.01$, $R = 0.38$, adjusted $R^2 = 0.14$). Also, the proposed interaction between PSF1 and need for uniqueness was supported ($\beta = 0.15$, $p < 0.01$), indicating that consumers with high levels of need for uniqueness had a stronger relationship between PSF1 and in–store hoarding ($r = 0.28$) as compared to consumers with low levels of need for uniqueness ($r = 0.11$). For H8c, a significant amount of variation in in–store hiding was explained by the regression model, ($F(3,341) = 12.73$, $p < 0.01$, $R = 0.32$, adjusted $R^2 = 0.09$). Also, the interaction between PSF1 and need for uniqueness as proposed was supported ($\beta = 0.15$, $p < 0.01$), indicating that consumers with high levels of need for uniqueness had a stronger relationship ($r = 0.30$) between PSF1 and in–store hiding as compared to consumers with low levels of need for uniqueness ($r = 0.07$). Similarly, three separate multiple regressions were conducted with PSF2 and need for uniqueness predicting urgency to buy, in–store hoarding, and in–store hiding respectively but the results failed to support the moderating role of need for uniqueness in influencing relationships (see table 4.19).

Table 4.18
Multiple Regression Analysis for Moderating Role of Need for Uniqueness (PSF1)

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy					0.12
PSF1	-0.03	0.05	-0.65	-0.04	
Need for uniqueness	0.34	0.05	0.77	0.35**	
PSF1 X need for uniqueness	0.07	0.04	1.86	0.10	
In-store hoarding					0.14
PSF1	0.07	0.06	1.15	0.06	
Need for uniqueness	0.41	0.07	6.36	0.33**	
PSF1 X need for uniqueness	0.14	0.05	2.70	0.15**	
In-store hiding					0.09
PSF1	0.04	0.01	3.83	0.21**	
Need for uniqueness	0.02	0.01	1.37	0.07	
PSF1 X need for uniqueness	0.03	0.01	2.72	0.15**	

* $p < 0.05$ **$p < 0.01$

Table 4.19
Multiple Regression Analysis for Moderating Role of Need for Uniqueness (PSF2)

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy					0.11
PSF2	-0.03	0.06	-0.50	-0.03	
Need for uniqueness	0.33	0.05	0.77	0.35**	
PSF2 X need for uniqueness	0.05	0.05	1.00	0.05	
In-store hoarding					0.06
PSF2	0.28	0.08	3.41	0.18**	
Need for uniqueness	0.22	0.07	3.07	0.16**	
PSF2 X need for uniqueness	0.07	0.07	0.98	0.05	
In-store hiding					0.11
PSF2	0.09	0.07	1.26	0.07	
Need for uniqueness	0.42	0.06	0.54	0.33**	
PSF2 X need for uniqueness	0.06	0.06	0.97	0.05	

* $p < 0.05$ **$p < 0.01$

To examine the differential influence of perceived scarcity on urgency to buy, in-store hoarding, and in–store hiding across gender, three separate split-file regression analyses were conducted. To test H9 across males and females, regressions were conducted with PSF1 predicting urgency to buy. Across males, the regression model

failed to explain a significant amount of variation in urgency to buy, ($F(1, 89) = 0.63$, $p > 0.05$, $R = 0.08$, adjusted $R^2 = 0.04$) (see table 4.20). Further, the positive relationship between PSF1 and urgency to buy was not supported ($\beta = -0.08$, $p > 0.05$). Similar results emerged from the analysis across females, $F(1, 251) = 7.92$, $p > 0.05$, $R = 0.05$, adjusted $R^2 = 0.01$, $\beta = 0.05$, $p > 0.05$). To test H10, regressions were conducted with PSF1 predicting in–store hoarding and in–store hiding. As proposed in H10 a, the results indicated that females under PSF1 exhibited in-store hoarding ($F(1, 251) = 7.92$, $p < 0.05$, $R = 0.18$, adjusted $R^2 = 0.13$, $\beta = 0.18$, $p < 0.01$) (see table 4.20). Further, the results indicated that males did not exhibit in–store hoarding behaviors under PSF1 ($F(1, 89) = 0.09$, $p > 0.05$, $R = 0.03$, adjusted $R^2 = 0.01$, $\beta = 0.03$, $p > 0.05$). Similar support was provided for H10 b, as the results indicated that females under PSF1 exhibited in-store hiding ($F(1, 251) = 24.12$, $p < 0.001$, $R = 0.30$, adjusted $R^2 = 0.08$, $\beta = 0.30$, $p < 0.01$). Further, the results indicated that males did not exhibit in–store hiding behaviors under PSF1 ($F(1, 89) = 2.12$, $p > 0.05$, $R = 0.15$, adjusted $R^2 = 0.01$, $\beta = 0.15$, $p > 0.05$).

Table 4.20
Influence of PSF1 on Urgency to Buy, In–store Hoarding, and In–store Hiding across Genders

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy (male)	-0.07	0.09	-0.80	-0.08	0.04
Urgency to buy (female)	-0.04	0.05	0.81	0.05	0.01
In-store hoarding (male)	0.04	0.12	0.30	0.03	0.01
In-store hoarding (female)	0.16	0.06	2.81	0.18**	0.13
In-store hiding (male)	0.03	0.02	1.46	0.15	0.01
In-store hiding (female)	0.06	0.01	4.91	0.30**	0.08

* $p < 0.05$ **$p < 0.01$

Split file regressions were also conducted to examine the differential influence of PSF2 on urgency to buy, in-store hoarding, and in–store hiding across gender. No

significant relationship was observed between PSF2 and urgency to buy and PSF2 and in–store hoarding across males and females (see table 4.21). However, females under PSF2 did exhibit in–store hiding behaviors ($F (1, 251) = 8.65$, $p < 0.05$, $R = 0.18$, adjusted $R^2 = 0.03$, $\beta = 0.18$, $p < 0.01$), whereas males failed to exhibit similar behavior ($F (1, 90) = 10.21$, $p > 0.05$, $R = 0.32$, adjusted $R^2 = 0.09$, $\beta = 0.32$, $p > 0.05$).

Table 4.21
Influence of PSF2 on Urgency to Buy, In–store Hoarding, and In–store Hiding across Genders

Variable	Unstd. Coeff	S.E.	t-value	Std. Coeff	R-square
Urgency to buy (male)	0.08	0.10	0.85	0.09	0.00
Urgency to buy (female)	-0.01	0.06	-0.14	-0.01	0.00
In-store hoarding (male)	1.29	0.08	1.54	0.16	0.02
In-store hoarding (female)	0.09	0.05	1.79	0.11	0.01
In-store hiding (male)	0.28	0.09	3.20	0.32	0.09
In-store hiding (female)	0.11	0.04	2.94	0.18**	0.03

* $p < 0.05$ **$p < 0.01$

Though not proposed, split–file regression analyses were also conducted across gender to examine the moderating role of competitiveness, hedonic shopping motivation, and need for uniqueness in predicting urgency to buy, in–store hoarding, and in–store hiding across PSF1. Gender played no significant role in predicting relationships between PSF1 and urgency to buy and PSF1 and in–store hoarding across levels of competitiveness (high and low). However, females with high levels of competition exhibited a stronger relationship between PSF1 and in–store hiding ($r = 0.34$) as compared to females with low levels of competition ($r = 0.21$). Also, gender played a significant role in predicting a relationship between PSF1 and in–store hoarding across levels of hedonic shopping motivations. Both males and females with high levels of hedonic motivation exhibited a stronger relationship between PSF1 and in–store hoarding

behaviors ($r_m = 0.34$, $r_f = 0.30$) as compared to males and females with low levels of hedonic motivation ($r_m = 0.23$, $r_f = 0.01$). Similarly, the results also indicated that males and females with high levels of hedonic motivation exhibited a stronger relationship between PSF1 and in–store hiding behaviors ($r_m = 0.33$, $r_f = 0.33$) as compared to males and females with low levels of hedonic motivation ($r_m = 0.18$, $r_f = 0.06$). When examining the moderating role of need for uniqueness in predicting relationship between PSF1 and urgency to buy, gender played no significant role. However, females with high need for uniqueness exhibited a stronger relationship between PSF1 and in–store hoarding ($r_{hoard} = 0.18$) and PSF1 and in–store hiding ($r_{hid} = 0.31$) as compared to females with low levels of hedonic motivation ($r_{hoard} = 0.11$, $r_{hid} = 0.07$).

Summary

The above study provides an in–depth understanding of the psychological role played by the perception that a particular good is scarce and that this scarcity is intentionally created by the marketer. The study differentiates the consumer's understanding of scarcity deliberately created by the retailer (PSF1) from a situation where the retailer does not necessarily limit the supply of the product (PSF2). The study further suggests that consumers react strongly and sometimes differently when they understand that the scarcity is strategically created by the retailer. For example, the results suggest that consumers exhibit urgency to buy when they feel that the scarcity is strategically created by the retailer (PSF1). However, this behavior is absent in a situation where the retailer doesn't necessarily limit the supply of the product (PSF2). Similarly, the results support full mediation of anticipated regret on the relationship between PSF1 and urgency to buy and further suggest that anticipated regret does not mediate the

relationship between PSF2 and urgency to buy. This finding provides an important managerial implication, as it suggests that retailers by strategically creating the product scarcity within their stores can generate regret in the mind of the consumer and compel them to take an immediate action rather than delaying their buying decisions. The results also suggest that, when consumers perceive the scarcity to be strategically created by the retailer (PSF1), they exhibit in–store hoarding behaviors which are absent when scarcity is not necessary created by the retailer (PSF2). However, the results suggest that consumers irrespective of the origin of scarcity (i.e., induced intentionally by the retailer or created due to high demand conditions) exhibit deviant behaviors like in–store hiding.

Examining the moderating roles of competitiveness, hedonic motivation, and need for uniqueness also suggest that consumers high on the above traits react strongly and sometimes differently to PSF1 and PSF2. For example, though consumers with high level of competitiveness exhibit in–store hiding across both types of scarcities, they react more strongly to PSF1 as compared to PSF2. Further, the results suggest that consumers with high levels of hedonic motivation under PSF1 are less likely to exhibit urgency to buy and more likely to exhibit in–store hoarding and in–store hiding behaviors. However, under PSF2, consumers with high hedonic motivation only exhibit in–store hiding behavior. Even though in–store hiding behavior is consistent across both types of scarcity, for consumers with high hedonic motivation, its relationship is stronger for PSF1. The results also suggest that consumers high on need for uniqueness react differently to the two types of scarcity as they exhibit in–store hoarding and in–store hiding behaviors in PSF1 and not in PSF2 condition.

The findings also provide an understanding of how males and females react to scarcity strategically created by the retailer (PSF1) and how they differ to the scarcity not necessary created by the retailer (PSF2). Surprisingly, males in general, do not react to either PSF1 or PSF2 and fail to exhibit behaviors like urgency to buy, in–store hoarding, or in–store hiding. However, males with high levels of hedonic motivation do exhibit in–store hoarding and in–store hiding under conditions of scarcity that are strategically created by the retailer (PSF1). Females, on the other hand, exhibited in–store hoarding only when PSF1 was high, whereas, when both types of scarcities existed they mostly exhibited in–store hiding behaviors. Further, females high on traits like competitiveness, hedonic shopping motivation, and need for uniqueness under strategically created scarcity were more likely to exhibit behaviors like in–store hoarding and in–store hiding.

As can be observed from the analyses, some of the R^2 values specific to in–store hiding (e.g., H5c, H8c, and H10b) were quite low, suggesting little variance been explained (9%, 9%, and 8% respectively). One of the reasons for the low variance accounted in in–store hiding could be that it had positive skewness, which was removed by taking logarithmic transformation. The logarithmic transformations are said to reduce the variance significantly and if the dependent variable in the regression model has already been transformed in some way, it is possible that much of the variance has already been "explained" merely by the choice of an appropriate transformation (Leydesdorff and Bensman 2006). Given, logarithmic transformation was performed on in–store hiding which in all analyses was a dependent variable, it can be concluded that the analyses were not able to explain the whole variance thus leading to low R^2 values.

CHAPTER 5

DISCUSSION

"If you're going to buy a real book, a paper book, then there better be a good reason. Perhaps scarcity is one of those reasons." (Seth Godin)

Retailers have always tried to understand the buying decisions of their consumers and how their decisions can be triggered, affected, and disrupted. Roughly seventy percent of the buying decisions are made in–store and sixty–eight percent of those decisions are unplanned (Kotler 2012). Retailers make much happen to affect the consumer buying decision, and one of the many proactive practices used is to strategically manipulate the supply of their merchandise, thus creating a perception of scarcity in their consumers' minds. Brands like Sony PlayStation 2 and Nintendo's Game Boy cartridges adopted conscious strategies to use deliberate product scarcity as a marketing tool (Retailing Today 2000; The Wall Street Journal 1989). A similar phenomenon is well observed with fast fashion retailers like Zara, H&M, and Forever 21, who by adopting endogenous scarcities have taken the fashion retail industry by storm. Despite a successful strategy to entice consumers, the marketing literature has little paid attention to explain consumers' psychological and behavioral responses to these unique scarcity situations.

This dissertation, through a mixed method approach, studies these conditions of scarcity that are strategically created by the retailer and addressed four gaps in literature (1) consumers' understanding of scarcity conditions, (2) consumers' reactions to scarcity conditions, (3) the role of traits like competitiveness, hedonic shopping motivation, and need for uniqueness, and (4) the role of gender in influencing the consumer decision making. Both the qualitative inquiry and the quantitative analyses suggest that

consumers, when perceiving scarcity to be strategically created by the retailer, exhibit anticipated regret and develop an urgency to buy the product. However, consumers further exhibit some deviant and competitive behaviors like in-store hoarding and in-store hiding under these conditions of human–induced scarcity. These behaviors are moderated by human traits like competitiveness, hedonic shopping motivation, and need for uniqueness and are differential across gender.

Consumer's Understanding of Scarcity Conditions and Their Responses

Throughout this dissertation, we were able to measure the consumers' perceptions of product shortage for a particular style or size that is strategically created by the retailer (PSF1) and differentiate it from the perception created due to a scarce situation not necessarily strategically created by the retailer (PSF2). This perception of scarcity, created due to strategically–imposed environments, is linked to the belief that in a given moment in time and in a specific place, a given good is scarce and the scarcity has been intentionally created by the marketer. Given that strategically created scarcity captures "supply side scarcity" that arises due to interplay of limited time scarcity and limited quantity scarcity (Gierl, Plantsch, and Schweidler 2008), the newly developed construct (PSF1) includes both types of scarcities. On the other hand, the PSF2 construct (Byun and Sternquist 2008) used in study 2 measured only limited quantity scarcity and was unclear as to its origin. Also, it failed to measure the consumer's perception of supply–side scarcity intentionally created by the retailer. Thus by operationalizing a construct that measures consumers' perceptions of scarcity created due to strategically–imposed conditions and by further examining its influence on consumer buying behavior, we are able to contribute to the literature on scarcity, both methodologically and theoretically.

Through the context of fast–fashion, the study was able to examine consumers' psychological and behavioral responses to the conditions of retailer-induced scarcities. Fast–fashion provided an extreme case of human–induced scarcity as these retailers are successful in deliberately communicating product scarcity to the consumer by adopting both time and quantity limitations. Theoretically, it was suggested that these strategically scarce conditions should threaten consumers' freedom to delay a buying decision, thus triggering psychological reactance and creating an urgency to buy the scarce product which precedes impulse buying behaviors. Analytical results were able to establish the discriminant validity between urgency to buy and impulse buying behavior, thus supporting the extant literature that urgency to buy is a state of desire that precedes the actual impulse action. Also, statistical support was found to suggest a direct relationship between scarcity strategically created by the retailer (PSF1) and urgency to buy. However, no relationship was found between PSF2 and urgency to buy thus suggesting that urgent buying behaviors can only be triggered by strategically created scarce conditions.

Of possible interest is the indirect relationship between perceived scarcity and urgency to buy, which supported the proposed role of emotions in decision making under conditions of scarcity. The results suggest that uncertainty in consumers' mind can be successfully created by deliberately controlling product supply. Consumers uncertain about product availability in the future soon start to realize that, if they wait then, it is very likely that they will end up without the desired product, a decision that they would regret later. Strategically created scarcity conditions thus make the consumers realize that if they do not get the desired product right away, then they will not be able to get it in

future. Hence to avoid regret due to ending up without the desired product, consumers are persuaded to buy the product immediately. Thus, the findings of this study support and extend to the existing literature on anticipated regret and suggest that anticipated regret can be successfully used to motivate behaviors, as regret is a particularly pervasive and powerful emotion that people wish to avoid.

The results of the four studies also suggest that consumers, upon realizing the existence of scarcity strategically created by the retailer, indulge in some competitive and deviant behaviors like in–store hoarding and in–store hiding. Engaging in such behaviors facilitates risk-avoidance behaviors and results in less willingness to share the scarce products with other consumers, thus providing a sense of security, achievement, happiness, satisfaction, and possession-defined success (Frost and Gross 1993). The study suggests that due to the scarcity communicated by these retailers, consumer freedom is threatened, thus triggering psychological reactance and encouraging them to take immediate actions like in–store hoarding to safeguard their behavioral freedom. However, at the same time, consumers do want to explore the different choices offered in the marketplace and thus use in-store hiding behaviors, as by doing so they are able to buy time and, thus, delay decision making on the previously hoarded item. The qualitative findings further suggest the roles of strict store return policies, unwillingness of the store to hold the product, and a store's messy ambience (or spatial crowding) in encouraging in–store hiding behaviors. Through this study, we were not only able to understand consumer psychological and behavioral responses to the conditions of induced–scarcity, but also were able to define and measure constructs like urgency to buy and in–store hiding, thus contributing to the extant literature on retailing.

The Role of Human Traits

The psychology literature stipulates that certain traits like competitiveness and hedonic need fulfillment help to characterize individual differences related to shopping behavior (Angst, Agarwal, and Kuruzovich 2008). Through this dissertation we were able to examine the moderating role of competitiveness and hedonic shopping motivation in influencing consumer behaviors under the conditions of strategically created scarcity. Overall, the findings suggest that consumers high on these traits, when perceiving scarcity to be strategically created by the retailer were more likely to indulge in deviant behaviors like in–store hiding. The findings also suggest that consumers high on hedonic shopping motivation were more likely to indulge in in-store hoarding behaviors. However, similar support for indulgence in in–store hoarding for consumers with competitive traits could not be established. This may largely be due to the fact that competitiveness was defined and measured in a general context, whereas hedonic shopping motivation was clearly defined and measured in the context of shopping.

Even though the results examining the moderating role of competitiveness and hedonic shopping motivation were mixed they still provide a fair understanding of what role traits like competitiveness and hedonic shopping motivation play in influencing consumer decision making under conditions of strategically induced scarcity. Consumers with high competitiveness were more likely to indulge in in–store hiding behaviors as compared to in–store hoarding. One of the reasons for indulgence in hiding behavior could be the fact that hiding symbolizes competitive behavior. In business to business context, competitive firms are often seen hiding information from their competitors in order to gain competitive advantage in the market (Prabhu and Stewart 2001). Similarly,

in current context, consumers with high competitive trait perceive these scarce products as unique and a way to satisfy "their desire to win and be better than others" (Spence and Helmreich 1983). Indulging in behaviors like in–store hiding provide competitive consumers a sense of winning against the retailer and other consumers. For example, during qualitative interviews, consumers did say that for them winning was everything and if they like a product but due to various reasons couldn't get it, they then hide the product with an intention that nobody else also gets it. Thus the act of hiding and not sharing scarce products with potential competitors provide competitive consumers a sense of satisfaction and a way of defining themselves as different and better from their peers. Similarly, for consumers with high hedonic motivations, engaging in behaviors like in-store hoarding and in–store hiding provides them with an opportunity to take possession of a unique or scarce item before it is gone, thus making the whole process adventurous, exciting, and enjoyable. Such behaviors, by facilitating possessiveness, loss aversion behavior, less willingness to share the scarce items with potential competitors, variety seeking, information seeking, and active engagement with the product, satisfy their hedonic needs related to adventure, fun, novelty, and variety, thus providing a psychological gain through the whole process.

Prior literature on scarcity also recognizes an interaction between scarcity and need for uniqueness and suggests that people having a social desire to maintain a sense of uniqueness are more likely to acquire scarce products (Snyder and Fromklin 1980). Through this dissertation we were able to understand that how this interaction influences behaviors like urgency to buy, in–store hoarding, and in–store hiding. The findings suggest that consumers with high need for uniqueness in these human–induced scarcity

conditions perceive the products to be scarce, and thus exhibit in–store hoarding and in–store hiding behaviors. The findings support the extant literature on scarcity which suggests that consumers who are high in need for uniqueness are likely to desire scarce products (Lynn 1991; Snyder and Fromkin 1977). Thus, under conditions of perceived scarcity, the need for differentiating themselves from others will motivate consumers to hoard or hide scarce items more in order to reassert their position as a unique individual (Donthu and Gilliland 1996; Workman and Kidd 2000).

The Role of Gender

Recently, there has been a rise of a "*new hegemonic masculinity*" (Patterson and Elliott 2002), which includes the feminization of masculinity, as males are now more concerned about their appearance (Ostberg 2009; Sturrock and Pioch 1998). Due to this change in mainstream masculinity, males are spending time and money on their appearance and are now seen as more involved in shopping for products that were once seen as female: apparel, cosmetics, and skin-care (Bakewell and Mitchell 2006; Dholakia 1999; Otnes and McGrath 2001; Tuncay and Otnes 2007). Getting a manicure or dressing up in the latest fashion is actually considered essential for a successful business career by this "new" man.

Thus, given the rise of men as avid consumers of fashion goods, the current research also examined the role of gender in influencing decision making under conditions of strategically imposed scarcity. It was suggested that males, when subjected to conditions of human–induced scarcity, will associate scarcity with competition, which would trigger psychological reactance thus creating a sudden and spontaneous urge to buy. However, when females are subjected to the same conditions of scarcity, they are

more likely to exhibit in–store hoarding and in–store hiding behaviors. Given females have more hedonic shopping motivations, possessing scarce products rather than buying them right away will make them feel satisfied with having won a shopping game.

Across the four studies, mixed support was found for the role of gender. The qualitative interviews with male consumers (n=4) suggested a rise of a "new" male who is concerned about his appearance and equates appearance to success. However, these males instead of exhibiting urgency in their buying behaviors exhibited similar shopping behaviors as females and indulged in in–store hoarding and in–store hiding. Similarly, across study 4, males did not exhibit urgency to buy; however, females, as proposed, did exhibit in–store hoarding and in–store hiding behaviors. Further, the results indicated that males with high hedonic motivations (n= 44) exhibited in–store hoarding and in–store hiding behaviors.

The findings of this study are pertinent as they provide evidence of "*new hegemonic masculinity.*" It is suggested that contrary to their stereotypical shopping behaviors, younger males are becoming more involved in shopping processes and are exhibiting behaviors similar to females. When males and females are subjected to conditions of perceived scarcity, they are able to satisfy their hedonic shopping motivations by exhibiting in–store hoarding and in–store hiding behaviors. These behaviors facilitate possessiveness, loss aversion behavior, less willingness to share the scarce items with potential competitors, variety seeking, information seeking, and active engagement with the product, thus helping them regain behavioral freedom and making the whole process exciting and enjoyable.

Managerial Contributions: Should Retailers Induce Scarcity Within Their Stores?

Retailers face intense competition in the marketplace and strive to get shoppers into their store. Once the shoppers are in their stores, these retailers are busy using different strategies to change the shoppers' preferences and, ultimately, making them their profitable consumers. However, the question remains that should retailers proactively induce product scarcity within their stores? Based on this dissertation, the answer to this question is a double–edged sword. Promoting product scarcity within the store could be advantageous as by deliberately controlling the supply of the product, retailers can successfully create anticipated regret in the consumer's mind, which can then be used to motivate him/her to exhibit behaviors like urgency to buy. However, retailers should also be cognizant that, by deliberately controlling the product availability, they are cultivating behaviors like in–store hoarding and in–store hiding among consumers. Behaviors like in-store hiding could be detrimental for the store's financial performance, as hiding a product inhibits its sale. As per the interviews, the retail industry seems to ignore hiding behavior while, in fact, generating it through their actions and policies.

Given that proactively inducing scarcity within a store has both its advantages and disadvantages, we suggest that retailers should do so with care. To avoid deviant behaviors like in–store hiding, stores can adopt lenient return policies or hold products for the consumers. However, by doing so, they may not be very successful in creating a perception of product scarcity within their stores. It is very likely that, when a smart consumer perceives product scarcity, he/she may buy the scarce product but may return it later after making the final decision. Thus, to create a holistic picture of scarcity

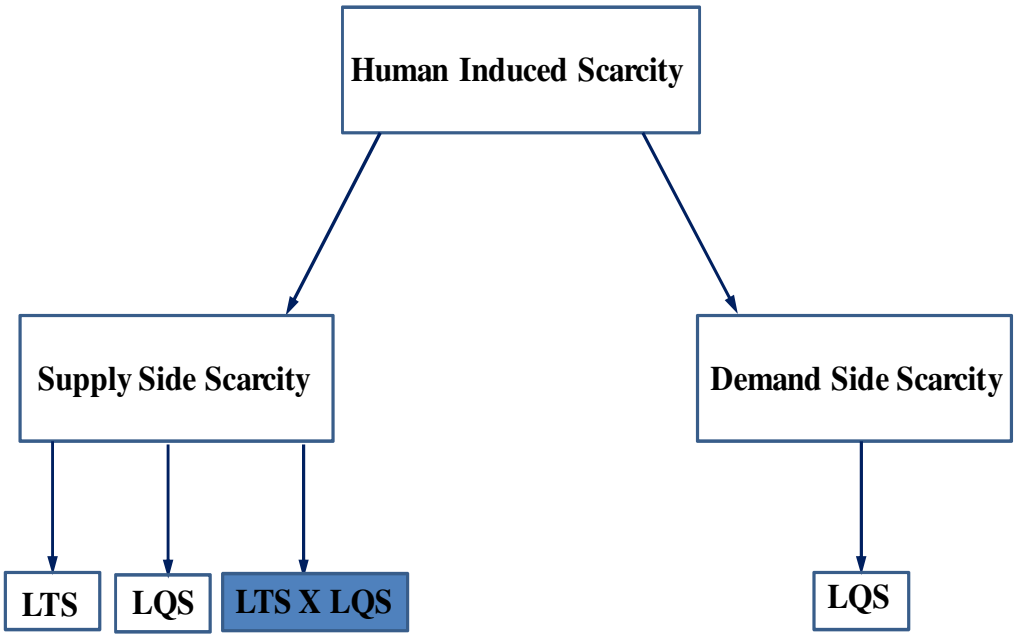
environment that is strategically created by the retailer, it is pertinent for the retailer to not only create a product scarcity perception on the retail floor but also implement it through strict store policies. But then, what should be done to control practices like in–store hiding behaviors? The answer to this question lays with organized store ambience, responsive store employees, and short term holding policies. Stores should create organized and clean store ambience as consumers in such are less likely to exhibit in–store hiding behaviors stores due to the fear of have been caught. Also, stores should train their sales associates to be efficient and responsive in retrieving the hidden product. Similarly, holding products for short term will greatly reduce the hiding behaviors as holding products will help consumers buy some more time to make a final decision. Retail brands can also control for in–store hiding by designing and placing sophisticated ID tags on clothes to track them and thus, facilitating the product retrieving process.

Limitations and Future Research

Despite its contribution, this dissertation comes with its own challenges. The first limitation of this research is that it examines the consumer responses to scarcity conditions that are strategically controlled by the retailer. In other words, this research examines the consumer responses to "supply side scarcity" conditions which include both limited time scarcity and limited quantity scarcity. However, within retail settings, human–induced scarcity can also be generated due to forces of demand where the retailer does not limit the supply of the product but scarcity arises due to factors like high demand for the product thus leading to stock depletion, (i.e., demand exceeds supply). This research did not examine consumer responses to conditions of scarcity that are generated by the consumer. Future research is imperative that will examine how

consumers react to scarcity environments that are created by consumers (for example, reactions to in–store hoarding and in–store hiding by other consumers or to situations where consumer demand is more than unmanipulated supply). Questions like what type of emotions (for example, competitive arousal) consumers go through when they realize that the product scarcity in a store is customer–driven need to be investigated in greater detail. Also, the effects of limited time scarcity and limited quantity scarcity (in this case, created by the retailer) should be studied separately to examine any differences in consumer reactions (see figure 5.1).

Figure 5.1
Types of Human–Induced Scarcities



The second limitation is that this research examines the effects of scarcity by studying the extreme case of fast fashion retailers; generalizability needs to be established across different contexts and categories. Strategically controlled scarcity has been

successfully implemented across different categories like electronics, dvds, books, etc. and future studies are needed to examine if consumers behave any differently in these contexts. Recently, scarcity messages have also been used successfully by online retailers like overstock.com and, hence, the examination of consumers' psychological and behavioral responses in a virtual context would also be insightful.

Finally, examining the effects of scarcity through the context of fast–fashion might have created a sampling bias. The final study had 254 females and only 92 males as its participants. The main reason to this irregular distribution could be the context of fast–fashion. Due to socio–cultural pressures, females are more concerned about their appearance and hence are more likely to shop at these fast–fashion stores. Generalizing this study across different contexts (for example, the context of electronics) will help us better understand the role of gender in influencing the consumer buying behavior in the conditions of strategically–controlled scarcity conditions.

Another potential topic for future research could be examining the role of Self–Regulation Theory (Higgins et al. 2001) in predicting decision making among different populations under the conditions of perceived scarcity. In other words, it will be worthwhile to explore, "if consumers with a prevention orientation think differently about perceived scarcity than those with a promotion orientation?" A prevention orientation is concerned with security and risk avoidance whereas promotion orientation is concerned with risk seeking and accomplishment. The "limited product availability for a limited time" found in fast–fashion context could mean totally different things to people who are prevention oriented (they may be more likely to buy to avoid missing out on products, thus reflecting risk aversion behavior) compared to people who are promotion oriented

(they may be more likely to buy in order to fulfill their sense of achievement of getting the limited merchandise). This study can be pertinent in exploring the salespersons' interactions in perceived scarcity conditions. Based on prevention–promotion orientations among the consumers, salesperson can successfully stress communications like "it won't be here tomorrow" in the former case but "you will be really unique when you wear it" in the latter case.

The developed world for the most part faces over–abundance and hence it is unlikely to see "resource scarcity" often in these nations. However, the rest of the world is not facing the same situation. In developing nations, consumers compete for limited resources on a daily basis and, over time, learn to live under conditions of scarcity throughout the environment. One may wonder what emotions and/or consumer behaviors are cultivated so that consumers may cope and how they differ from those of consumers raised in environments with over–abundant resources. When consumers face an overabundance of resources, they are likely to over–consume, thus also raising concerns about sustainable consumption. However, this may not be true for consumers in developing cultures, who been raised in environments of scarcity, and may have developed thrift consumption patterns and may value the resources more. Thus, there are reasons to expect that the reactions to the manipulated retail scarcity conditions found in fast fashion contexts (which clearly have very limited linkage to sustainable consumption) may differ greatly from how consumers at the Bottom of the Pyramid handle scarcity. Studying consumer behavior under such conditions of scarcity may well have the potential to shed light on how sustainable consumption efforts in the developed world can be marketed more effectively.

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APPENDIX A: INFORMED LETTER OF CONSENT

University of Nebraska Lincoln

INFORMED CONSENT FORM

Project Title: The psychological effects of resource scarcity in the retail setting and how these affect consumers' buying behavior.

Researchers at the University of Nebraska-Lincoln, support the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study.

The goal of this study is to explore the role of marketing and retail operations management in the fast-fashion context. Your responses will aid in understanding the retail strategies adopted by fast-fashion retailers which then affect the consumers' buying behavior.

If you agree to take part in the study, you will either be asked for your perspective in a face to face interview or you will be asked to fill a questionnaire.

There are no known risks to you involved in participating in this research. Though it is unlikely, there are questions that you may decide to not respond. Please do continue the interview or the survey even if you do not answer particular questions. Should you encounter any discomfort, you may at any time discontinue the interview. You are free to decide not to participate in this study or to withdraw at any time.

Confidentiality will be maintained and at no time will we mention your name to any of your responses in the interview or the survey. Responses will be locked in a file

cabinet and destroyed once the information is aggregated as a summary. The results of these studies will be shared with you that will help you better understand the retail strategies adopted by the fast-fashion retailers and how they influence the consumer buying behavior.

You may ask questions about this research and have those answered before agreeing to participate. You may call Shipra Gupta at the University of Nebraska-Lincoln (402-472-0612) or James Gentry at (402-472-3278). If you have questions concerning your rights as a research subject that have not been answered by the investigator, or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board (402-472-6965).

You are voluntarily making a decision whether or not to participate in this research study. Please print your name to certify that you have decided to participate having read and understood the information presented. Thank you for considering participation in our research project. You can keep a copy of this consent form for your records.

Name of the Participant:

_____ _____

Name of the Participant Date

Thank you in advance for your time and valuable insight.

330A CBA / P.O. 880492 / Lincoln, NE 68588-0492

FAX (402) 472-9777

APPENDIX B: VERBAL SCRIPT USED TO CONTACT THE STORE MANAGERS

A script of what I will tell store managers when I approach them to participate in the research.

Hi, I am Shipra Gupta and am doing my PhD in Marketing from University of Nebraska, Lincoln. I am studying the psychological effects of resource scarcity in the retail setting and how these affect consumers' buying behavior. More specifically, I am examining that how fashion retailers create the perception of resource scarcity in the mind of the consumer thus affecting their buying behavior by creating sense of urgency, perception of freshness, increased customer satisfaction etc. Since I am primarily looking at strategies employed by fashion retailers, my intention is to examine the above phenomenon by conducting interviews with store managers. Since you are employed at _____ (fashion brand name) as a store manager your insights will be very valuable for my research. The interview will last approximately 45-60 minutes and will be conducted in person. There are no known risks to you involved in participating in this research and participation is voluntary. Confidentiality will be maintained throughout the process and at no time will your name be connected to any of your responses in the interview. The results of this study will be shared with you to help you better understand the importance of resource scarcity and how you can use it to strategically increase your sales. Any help regarding this study is highly appreciated.

Would you be interested in participating?

Do you have any questions you would like answered now?

APPENDIX C: FINAL QUESTIONNAIRE

PLEASE NOTE: We are looking for shoppers who have physically shopped at these stores and are not just looking for online shoppers.

Have you recently (within 2012-2013) physically shopped in any of the following stores? (Y = yes; N = no)

Zara stores _____Y _____N

If yes, then within the past year, how many times have you shopped in person at Zara stores? _____

H&M stores _____Y _____N

If yes, then within the past year, how many times have you shopped in person at H&M stores? _____

Buckle stores _____Y _____N

If yes, then within the past year, how many times have you shopped in person at Buckle stores? _____

Forever 21 stores _____Y _____N

If yes, then within the past year, how many times have you shopped in person at Forever 21 stores? _____

American Apparel stores _____Y _____N

If yes, then within the past year, how many times have you shopped in person at American Apparel stores? _____

Urban Outfitter stores _____Y _____N

If yes, then within the past year, how many times have you shopped in person at Urban Outfitters stores? _____

Out of the stores listed above, which one is your favorite? _____

How much percent of your monthly disposable income, do you spend every month on buying clothes? (Disposable income is money what is left after paying for necessities.)

☐ 0% – 4% ☐ 21 – 40%

☐ 5% – 9% ☐ 41 – 60%

☐ 10% – 14% ☐ 61 – 80%

☐ 15% – 20% ☐ 91 – 100%

How much time, on an average, do you spend shopping in your favorite store when shopping there (each trip) (Please answer this question in minutes or hours) _____

Within a typical month, how frequently do you shop at this store? _____ times

Have you returned products that you bought in this store? ☐ Yes ☐ No

If yes, how many times have you returned the products which were bought from this store? _____

PLEASE NOTE, IF YOU HAVEN'T SHOPPED IN PERSON AT ANY OF THE ABOVE LISTED STORES, PLEASE SKIP SECTION I AND GO TO SECTION II ON PAGE 9

SECTION I

Based on your shopping experience at *the above listed favorite store*, please answer the following questions on a 7-point Likert scale. Please indicate how much you agree with the following statements:

7 – Strongly Agree
6 – Agree
5 – Agree somewhat
4 – Neither or don't know
3 – Disagree somewhat
2 – Disagree
1 – Strongly Disagree

While shopping in this store, I found that there were a limited number of products per size, style, and color	1	2	3	4	5	6	7
While shopping in this store, when I found products of interest, I developed a desire to buy them	1	2	3	4	5	6	7
While shopping in this store, I bought products of interest spontaneously	1	2	3	4	5	6	7
When I found products of interest in this store, I hurried to grab them and kept them to myself while shopping	1	2	3	4	5	6	7
When I have found products of interest in this store, I have purposely hidden them within the store in secret hiding places so that other customers might not buy them	1	2	3	4	5	6	7
The return policies of this store are strict	1	2	3	4	5	6	7
While shopping in this store, I found the overall look of the store to be messy	1	2	3	4	5	6	7
While shopping in this store, I found that the products of interest were often scarce in my size	1	2	3	4	5	6	7
While shopping in this store, when I found products of interest, I had an urge to buy them even though I had not intended to purchase them	1	2	3	4	5	6	7
While shopping in this store, when I found products of interest, I bought them without considering the consequences	1	2	3	4	5	6	7
Sometimes when I selected a product at this store, 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

When I have found products of interest in this store, I have hidden them somewhere where they did not belong originally	1	2	3	4	5	6	7
While shopping in this store, I feel like if I missed buying the product of interest right away, I would regret it later	1	2	3	4	5	6	7
Once bought, it was difficult for me to return a product to the store	1	2	3	4	5	6	7
The merchandise at this store seemed to be disorganized	1	2	3	4	5	6	7
While shopping in this store, I found that the styles or the products that I was interested in were almost out of stock	1	2	3	4	5	6	7
While shopping in this store, when I found products of interest, I couldn't resist buying them	1	2	3	4	5	6	7
While shopping in this store, I have carried more products than what I intended to buy	1	2	3	4	5	6	7
While shopping in this store, I bought products of interest without thinking	1	2	3	4	5	6	7
When I found products of interest in this store, I have put them in completely different sections where nobody else could find them	1	2	3	4	5	6	7
While shopping in this store, I feel that I would experience regret if I waited and ended up without the desired product	1	2	3	4	5	6	7
Putting products I am possibly interested in on hold for a short time is easy at this store	1	2	3	4	5	6	7
Every item in this store is in its rightful place	1	2	3	4	5	6	7
While shopping in this store, I found that this store sells out fast and rarely resells the same merchandise/product	1	2	3	4	5	6	7
While shopping in this store, I have carefully planned most of my purchases	1	2	3	4	5	6	7
When I found products of interest in this store, I didn't feel like grabbing them and keeping them to myself while shopping	1	2	3	4	5	6	7
While shopping in this store, buy now, think about it later describes me	1	2	3	4	5	6	7

When shopping in this store, I have intentionally removed the desired product from other consumers' sight	1	2	3	4	5	6	7
While shopping in this store, I would be upset if I missed buying some products of interest	1	2	3	4	5	6	7
While shopping at this store, if I liked a product, it was easy to put it on hold	1	2	3	4	5	6	7
When shopping at this store, I think that the retailer intentionally creates the product scarcity by limiting product quantity for a particular style or size	1	2	3	4	5	6	7
While shopping in this store, I didn't feel like buying things on the spur of the moment	1	2	3	4	5	6	7
While shopping in this store, carrying more items than what I intend to buy when I go to the dressing room is convenient for me	1	2	3	4	5	6	7
While shopping in this store, I have hidden items so that they would be available to me later	1	2	3	4	5	6	7
While shopping at this store, I thought that scarcity was strategically created by store policies	1	2	3	4	5	6	7
While shopping in this store, by carrying more items than I intend to buy, I am able to try them all at once	1	2	3	4	5	6	7
While shopping at this store, I found an overabundance of the Product	1	2	3	4	5	6	7
Often, when buying merchandise, an important goal is to find something that reflects my unique style	1	2	3	4	5	6	7
I enjoy competition more than others	1	2	3	4	5	6	7
Shopping is truly a joy for me	1	2	3	4	5	6	7
I become frustrated when I am unable to get my preferred choice	1	2	3	4	5	6	7
I actively seek to develop my personal style by buying special products or brands	1	2	3	4	5	6	7
I feel that it is important to outperform others	1	2	3	4	5	6	7
When someone forces me to do something, I feel like doing							

the opposite	1	2	3	4	5	6	7
While shopping, it truly feels like an escape for me	1	2	3	4	5	6	7
I become angry when my freedom of choice is restricted	1	2	3	4	5	6	7
I often try to avoid products or brands that I know are bought by the general population	1	2	3	4	5	6	7
I enjoy testing my abilities against others	1	2	3	4	5	6	7
It makes me angry when another person is held up as a model for me to follow	1	2	3	4	5	6	7
While shopping, I enjoy being immersed in exciting new products	1	2	3	4	5	6	7
It irritates me when someone points out things which are obvious to me	1	2	3	4	5	6	7
I feel that winning is extremely important	1	2	3	4	5	6	7
Compared to other things done, the time spent shopping is truly enjoyable	1	2	3	4	5	6	7
Regulations trigger a sense of resistance in me	1	2	3	4	5	6	7
While shopping, I have a good time because I am able to act on the “spur-of-the-moment”	1	2	3	4	5	6	7
I find contradicting others stimulating	1	2	3	4	5	6	7
During shopping, I feel the excitement of the hunt	1	2	3	4	5	6	7
When something is prohibited, I usually think “that’s exactly what I am going to do”	1	2	3	4	5	6	7
While shopping, I feel a sense of adventure	1	2	3	4	5	6	7
I resist the attempts of others to influence me	1	2	3	4	5	6	7
I consider advice from others to be an intrusion (= interference)	1	2	3	4	5	6	7
Advice and recommendations induce me to do just the opposite	1	2	3	4	5	6	7

This set of questions asks you about specific events in your life. Please indicate your answer to each question by circling the appropriate number below it.

1. Compared to most people, are you typically unable to get what you want out of life?

1	2	3	4	5
never or seldom		sometimes		very often

2. Growing up, would you ever ``cross the line'' by doing things that your parents would not tolerate?

1	2	3	4	5
never or seldom		sometimes		very often

3. How often have you accomplished things that got you ``psyched'' to work even harder?

1	2	3	4	5
never or seldom		a few times		many times

4. Did you get on your parents' nerves often when you were growing up?

1	2	3	4	5
never or seldom		sometimes		very often

5. How often did you obey rules and regulations that were established by your parents?

1	2	3	4	5
never or seldom		sometimes		always

6. Growing up, did you ever act in ways that your parents thought were objectionable?

1	2	3	4	5
never or seldom		sometimes		very often

7. Do you often do well at different things that you try?

1	2	3	4	5
never or seldom		sometimes		very often

8. Not being careful enough has gotten you into trouble at times.

1	2	3	4	5
never or seldom		sometimes		very often

9. When it comes to achieving things that are important to you, do you find that you don't perform as well as you ideally would like to do?

1	2	3	4	5
never true		sometimes true		very often true

10. Do you feel like you have made progress toward being successful in your life?

1 2 3 4 5
certainly false certainly true

11. You have found very few hobbies or activities in your life that capture your interest or motivate you to put effort into them.

1 2 3 4 5
certainly false certainly true

Please answer the following questions on a 7-point scale. Please indicate how much you agree with the following statements:

1 – Not True 7 – Very True

	Please Circle One Response
My first impression of people usually turns out to be right.	1 2 3 4 5 6 7
I have not always been honest with myself.	1 2 3 4 5 6 7
I always know why I like things.	1 2 3 4 5 6 7
It's hard for me to shut off a disturbing thought.	1 2 3 4 5 6 7
I sometimes lose out on things because I can't make up mind soon enough.	1 2 3 4 5 6 7
I am a completely rational person.	1 2 3 4 5 6 7
I rarely appreciate criticism.	1 2 3 4 5 6 7
I am very confident of my judgments.	1 2 3 4 5 6 7
I don't always know the reasons why I do the things I do.	1 2 3 4 5 6 7
I sometimes tell lies if I have to.	1 2 3 4 5 6 7
There have been occasions when I have taken advantage of someone.	1 2 3 4 5 6 7
I never swear.	1 2 3 4 5 6 7
I sometimes try to get even rather than forgive and forget.	1 2 3 4 5 6 7
When I hear people talking privately, I avoid listening.	1 2 3 4 5 6 7

I sometimes drive faster than the speed limit.	1	2	3	4	5	6	7
I have done things that I don't tell other people about.	1	2	3	4	5	6	7
I never take things that don't belong to me.	1	2	3	4	5	6	7
I have taken sick-leave from work or school even though I wasn't really sick.	1	2	3	4	5	6	7

SECTION II

What is your age? _____ years

What is your gender? ☐ Male ☐ Female

What is your ethnicity?
☐ White (Caucasian)
☐ Black (African-American)
☐ Native-American, Eskimo, or Aleut
☐ Asian or Pacific Islander
☐ Hispanic/Latino/Spanish
☐ Other _____

What is your approximate total income per year (Please list your and not the family income)?

☐ Less than $5,000
☐ $5,000-$19,999
☐ $20,000-$34,999
☐ $35,000-$49,999
☐ $50,000-$74,999
☐ $75,000-$94,999
☐ $100,000 or more

Please indicate which educational category best describes the last year of school completed.

☐ Grade school (Grades 1-8)
☐ Some High School (Grades 9-11)
☐ High school graduate
☐ Some college
☐ College graduate
☐ Advanced degree

Please indicate your marital status.

☐ Single ☐ Married ☐ Divorced

You spent most of your life in which setting.

☐ Urban ☐ Small Town ☐ Rural

Thank you for your time!