

Consumer Response to Seller-Induced Perishability: Perceived Desirability of Products, Urge to Buy, and Purchase Acceleration

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Sang-Eun Byun

Assistant Professor, Dep. of Consumer Affairs, Auburn University, Auburn, U.S.A.

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Abstract *The implementation of a short renewal cycle has become one of the competitive alternatives for apparel retailers to respond quickly to fast-changing consumer tastes. This strategic orientation affects consumer decision-making by inducing perishability of the store offerings. The purpose of this study was to examine the impact of perceived seller-induced perishability (as a result of a short renewal cycle) on perceived desirability of products, urge to buy, and purchase acceleration. The proposed model was tested in a field setting with female shoppers from two leading fast fashion retailers in the United States. This study found that perceived seller-induced perishability significantly enhances the perceived desirability of products and intensify the urge to buy while shopping, which in turn accelerates purchases. In addition to perceived seller-induced perishability, perceived desirability of products also contributed to intensifying the urge to buy. A number of theoretical and managerial implications were discussed and major areas of future research were suggested.*

Key words *Short renewal cycle, fast fashion, perishability, product desirability, urge to buy, purchase acceleration*

Introduction

For products that have a short life cycle such as clothing, speed to market is clearly a critical component for gaining a competitive advantage. With the increasing level of competition and changing market dynamics (Bhardwaj & Fairhurst, 2010), a shortened product renewal cycle has seemingly become one of the competitive alternatives that fashion apparel firms can select to respond quickly to fickle and fast-changing target markets (Moore & Fernie, 2003). Apparel retailers such as ZARA, H&M, Mango, and Top Shop have built their competitiveness by adopting a new strategic concept known as fast fashion (Bhardwaj & Fairhurst, 2010). Fast fashion is 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 & Sternquist, 2008, p. 135). The latest fashion is delivered almost *weekly*, and

the merchandise is replaced with new items in every renewal cycle, rather than being replenished with the same product (Moore & Fernie, 2003; Dutta, 2002), thus limiting the availability of products in terms of time. Such strategic intention accelerates seller-induced perishability by creating a “here today, gone tomorrow” retail environment (Byun & Sternquist, in press), thus prompting consumers’ immediate psychological and behavioral reactions by increasing the time-sensitive nature of the store offerings. However, little research has been done to understand how consumers’ perception on seller-induced perishability shapes the valuation of products and purchase decisions.

Therefore, the purpose of this study is to investigate the impact of perceived seller-induced perishability on perceived merchandise desirability and urge to buy, and on further purchase decisions. With the growing importance of fast fashion in today’s time-based competition (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011), understanding consumer reactions to a short renewal cycle will contribute to extending the body of the literature in the consumer and retailing field.

Literature Review

A Short Renewal Cycle in the Fast Apparel Industry

In the past, fashion apparel companies positioned themselves by focusing on low price or high quality. However, with more sophisticated consumer wants and growing interests in fashion, the agility needed to guarantee constant delivery of up-to-date merchandise becomes increasingly critical for business success. Traditionally, the apparel product development cycle was split into Spring/Summer and Fall/Winter (Bhardwaj & Fairhurst, 2010; Moore & Fernie, 2003). By contrast, beyond this traditional basis, fast fashion retailers dramatically reduce the product life cycle to maintain inventory freshness and frequently introduce new offerings to satisfy consumers’ ever-changing preferences and increased demand for new styles (Al-Zubaidi & Tyler, 2004; Bhardwaj & Fairhurst, 2010; Brannon, 2010). Fast fashion retailers excel in supply chain management and demonstrate their competitiveness through their exemplary financial performance (Hayes & Jones, 2006). These retailers continuously develop innovations with enhanced design and introduce new merchandise on a frequent basis with quick response production capabilities (Cachon & Swinney, 2011). The ability to acquire the latest consumer information and the capacity to quickly respond to market changes allowed fast fashion retailers become industry leaders, increasingly affecting other business sectors (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011; Ghemawat & Nueno, 2003).

Fast fashion retailers plan a total sell-out of the current stock within a couple of weeks, a dramatic reduction from the traditional 6-12 month renewal cycle in the fashion apparel industry (Dutta, 2002). Moreover, since these retailers carry 100% private label lines, once the inventory is depleted, the same merchandise is not available from other sources (Byun & Sternquist, in press). In turn, a short product life span and a rapid inventory turnover alter consumer purchase behavior by accelerating perceived perishability of the store offerings. The following sections review the relevant literature to explain consumers’ psychological and behavioral reactions to short renewal cycles.

Perceived Seller-Induced Perishability

The term “perishability” refers to the nature of an item that has a fixed useful life or whose desirability fades after a certain time (Gupta, Sundaraghavan, & Ahmed, 2003; Voss & Seiders, 2003). For example, food is perishable because the value of the product falls as it spoils or as it approaches its expiration date (Geoffrey, 2000). Halloween costumes or Christmas products are most attractive before the holiday and become less valuable or non-usable after the season (Gupta et al., 2003). Furthermore, merchandise perishability can be manipulated by marketing factors. For example, sellers can induce perishability through frequent release of innovations or deliberate reduction of product life span to promote continuous purchase of new items (Bulow, 1986; Packard, 1960; Voss & Seiders, 2003). Accordingly, seller-induced perishability conveys the time-sensitive nature of a product or an opportunity whose value ends after a certain point or whose desirability deteriorates over time due to marketing factors (Byun & Sternquist, 2008; Voss & Seiders, 2003).

Marketers can accelerate perceived perishability on the part of consumers by utilizing semantic cues such as “hurry, limited time only,” and “one day sale” (Aggarwal & Vaidyanathan, 2003; Jung & Kellaris, 2004; Lynn, 1993; Spears, 2001). On the other hand, fast fashion retailers induce a high level of perishability by rapidly turning the inventory with new merchandise (rather than restocking it with the same merchandise). As a result, fast fashion items have a short life span in that the merchandise does not stay long on shelves and it is available only for a limited time (Byun & Sternquist, 2008). Such seller-induced perishability may significantly affect consumer perception and behavior, especially for product categories such as fashion apparel, where novelty-seeking and psychological obsolescence play vital roles in consumer decision-making about new product adoption (Cooper, 2004; Voss & Seiders, 2003).

Perceived Seller-Induced Perishability → Perceived Desirability of Products

While seller-induced perishability is increasingly utilized in today’s time-based market, little research has empirically examined how consumers’ perception of perishability affects perceived desirability of products. As discussed, perishable merchandise or events represents time-sensitive opportunities. The literature supports the strategic importance of carrying perishable items or inducing perishability for profitability and store image. For instance, carrying perishable items drives store traffic and increases purchase frequency and store loyalty (Corstjens & Corstjens, 1999; Krider & Weinberg, 2000; Tsiros & Heilman, 2005). Recently, more food retailers provide full-service delis, fresh bakeries, in-store butchers, and salad bars to draw more customers into the store, to increase frequency of store visits and purchases, and to build loyalty by differentiating the store from competitors (Corstjens & Corstjens, 1999; Tsiros & Heilman, 2005). As such, the perishable nature of store offerings (e.g., products, services, or promotions) attracts more attention from consumers, thus promoting immediate action to take advantage of a limited opportunity (Byun & Sternquist, in press; Verhallen & Robben, 1994).

The positive valuation of seller-induced perishability can be explained by the concept of the scarcity effect, which posits that the valuation of a product or an opportunity will increase to the extent that

it is perceived as being unavailable (Brock, 1968; Lynn, 1992; Verhallen & Robben, 1994). It predicts that people tend to desire scarce commodities or limited opportunities more strongly than products that are abundant or readily available, thereby biasing decision-making (Lynn, 1992). The scarcity effect has been empirically supported by extensive studies. For instance, Verhallen and Robben (1994) examined the effects of product availability on consumers' preferences for recipe books and found that when books had limited availability due to market circumstances such as popularity and limited supply, they were perceived as more costly and unique than books that were accidentally unavailable or abundantly or readily available. In the study of the role of time restrictions in accentuating deal value, Inman et al. (1997) found that consumers evaluate products more favorably when the temporal validity of a deal is limited than when it is not limited, especially if the deal offers a significant saving. Spears (2001) also confirmed that desirability of the store offerings increases when there is a time restriction imposed. Drawing upon the scarcity effect, it is postulated that perceived seller-induced perishability will increase the desirability of the merchandise, making it look more valuable, attractive, and distinctive to consumers. Accordingly, it is hypothesized as follows.

Hypothesis 1: The perceived seller-induced perishability will have a positive impact on perceived desirability of merchandise.

Perceived Desirability of Products → Urge to Buy

Further, it is expected that products perceived as valuable, attractive, and distinctive are likely to intensify the urge to buy in a fast-moving retail environment. To fashion-forward consumers, new styles may look more desirable and thus these consumers tend to adopt innovations earlier than others do (Byun & Sternquist, 2011; Brannon, 2010). Marketers deliberately plan on obsolescence in order to encourage continuous purchase of new items (Bulow, 1986). The concept of planned obsolescence was popularized by Packard (1960) and is referred to as the deliberate reduction of product life spans. Obsolescence of desirability (also called psychological obsolescence) occurs when a product that still maintains quality or function becomes less attractive or desirable in consumers' minds because of changes in design or updates in other attributes (Packard, 1960). In the case of fashion, the urge to buy new merchandises or adoption of new trends is promoted mainly by psychological obsolescence (Voss & Seiders, 2003). Companies can stimulate psychological obsolescence through product innovations, incremental changes in features (e.g., design or styling) and shortened product life cycles, significantly decreasing the value of existing possessions in the minds of the consumers and promoting the urge to adopt new merchandise (Cooper, 2004). As discussed earlier, fast fashion items are available only for a certain period of time due to the implementation of a short renewal cycle. As such, in response to psychological obsolescence, perceived desirability of products is likely to increase a strong sense of urgency to buy new items impulsively or immediately to comply with the new trend. Therefore, it is hypothesized as follows:

Hypothesis 2: Perceived desirability of merchandise will have a positive impact on the urge to buy the merchandise.

Perceived Seller-Induced Perishability → Urge to Buy

Perishable opportunities affect consumer perception and behavior more strongly than opportunities are always available (Cialdini, 1985). This study also proposes that perceived seller-induced perishability will directly impact the urge to buy. The literature suggests that perceived perishability creates a sense of urgency due to perceived uncertainty about the product availability in the near future (Lynn, 1992; Verhallen & Robben, 1994). Similarly, as a result of a short renewal cycle and rapid inventory turnover, merchandise sold in the fast fashion retail environment signals a high level of uncertainty of future product availability, thus accelerating perceived perishability on the part of consumers. Moreover, when the purchase cannot be made at any price after a limited time, consumers' perceived perishability intensifies the urge to buy (Byun & Sternquist, in press). Consumers tend to respond more sensitively to limited products or perishable opportunities by anticipating regret or losses because of not taking immediate action (Abendroth and Diehl, 2006). Therefore, it is expected that perceived perishability accelerated by a seller's short renewal cycle is likely to directly increase the urge to buy by limiting the time available to purchase the merchandise. Formally, it is hypothesized as follows:

Hypothesis 3: Perceived seller-induced perishability will have a direct, positive impact on the urge to buy the merchandise.

Urge to Buy → Purchase Acceleration

The ultimate goal of any promotional effort is to stimulate immediate sales by accelerating consumer purchases (Aggarwal & Vaidyanathan, 2003). In a highly competitive market, a retailers' ability to influence consumers' purchase decisions is very critical. Purchase acceleration occurs when consumers end up buying more units, or make the purchase earlier to benefit from a deal (Aggarwal & Vaidyanathan, 2003). Time-limited promotions generate quick sales due to the perishable nature of promotions (Byun & Sternquist, 2008). Namely, when an opportunity is limited or time-sensitive, consumers are often forced to curtail further product search, making a purchase at an earlier time than planned. Aggarwal and Vaidyanathan (2003) found that time-limited promotions increases purchase intention while reducing intent to search further for deals.

The urge to buy felt during shopping is likely to be one of the strongest antecedents leading to accelerated purchases. The psychology of physical proximity may provide a theoretical support between the urge to buy and purchase acceleration. As discussed previously, consumers tend to react more sensitively to time-sensitive promotions or limited opportunities due to anticipated regret for their forgone opportunity. Physical proximity effects suggest that consumers could hardly resist their strong urge to purchase when they physically encounter the object (Rook, 1987). In a study of impulse buying, drawing

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upon the psychology of physical proximity, Beatty and Ferrell (1998) also supported the positive links between the urge to buy and actual impulsive purchases. Accordingly, it is likely that a sense of urgency experienced in a compelling fast fashion retail environment will lead consumers to end up buying more products than they do normally, or to make an immediate purchase decision without delaying it, thus accelerating purchases. Therefore, it is hypothesized as follows:

Hypothesis 4: The urge to buy will have a positive impact on purchase acceleration.

Measurement

All constructs in this study were measured by multi-item scales using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). For perceived seller-induced perishability, the scales developed by Byun and Sternquist (2008) were adopted. The scale has six items in total and measures the perceived level of frequency in the introduction of new merchandise and perceived rapidity of inventory turnover. The reported reliability coefficient of the original scale is .88. Perceived desirability of products was measured by four items based on the conceptual discussion in the scarcity literature (e.g., Verhallen & Robben, 2004). The respondents were asked if the products in a store looked valuable, attractive, distinctive, and unique. To measure the urge to buy, the four-item scale developed by Beatty and Ferrell (1998) were used. The original scale measured the felt urge to make unplanned purchases. However, in many cases, consumers tend to plan a store visit to buy something even if they do not have a specific item or style in mind before entering the store (Rook, 1987), suggesting possibilities for multiple purchasing situations. Therefore, in our study, two items of the original scale were slightly modified to encompass the urge to buy in general, regardless of unplanned or planned purchase situations. Moreover, one of these items (i.e., I experienced no strong urges to make unplanned purchases on this trip) had a reversed scale, showing a poor loading value (.55). Therefore, this item was reversed again in this study to improve the item reliability. Purchase acceleration was measured by three items adopted by Byun and Sternquist (in press). The reported reliability of this scale was .84. Table 1 reports the measurement items and properties of the finalized scales.

Method

Data Collection

The data were collected by employing a combination of store intercept and mail survey methods. The sample for this study was composed of female shoppers from two leading fast fashion retailers located in a large metropolitan city in the northeastern United States. Two thousand surveys were distributed to female shoppers who had just exited the store. In order to increase the validity of responses by acquiring fresh memories about the shopping experiences, participants were asked to mail their completed survey back within 48 hours. A total of 249 surveys were returned, yielding a 12.5% response rate. Of

these, 234 responses were usable for this study. Of the sample, the majority of the samples (88.9%) were relatively young, aged between 20 and 34 years old. About 82.1% of the sample had or was currently pursuing a university degree or higher educational background. About 56.4 % of the sample reported an annual income (not family income) below \$34,999. Caucasians accounted for the largest portion, 39.3% of the sample, followed by 30.8% Asians. Only 11.5% of the sample indicated that it was their first visit to the store and about 88.5% reported that they had previously shopped in the store.

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Results

Confirmatory Factor Analysis

Following the recommendations by Anderson and Gerbing (1988), the psychometric properties of the measures were first evaluated, followed by structural path analysis. Amos 18 with the maximum like-

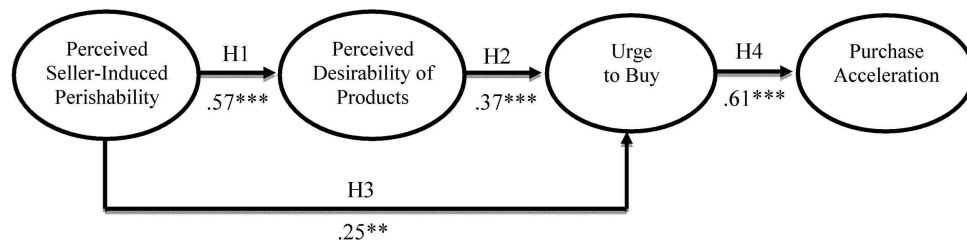
Table 1.
Measurement properties

Items	Lambda Loading	Composite Reliability	AVE
Perceived Perishability			
According to my knowledge or experience from shopping in this store,			
V1. New styles are introduced on a frequent basis.	.68		
V2. This store rapidly turns over their merchandise.	.74		
V3. Products in this store do not stay on the rack long.	.65	.87	.53
V4. This store introduces new fashion styles quickly.	.80		
V5. Products in this store are fresh in terms of fashion trend.	.79		
V6. Products in this store are moving fast.	.68		
Perceived Desirability of Products			
V7. Products in this store looked valuable.	.67		
V8. Products in this store looked attractive.	.81	.80	.57
V9. Products in this store looked distinctive.	.77		
Urge to Buy			
V10. On this trip, I had a strong urge to buy items of interest.	.88		
V11. I felt a sudden urge to buy something on this trip.	.72		
V12. I had the urge to grab a product of interest immediately.	.68	.85	.60
V13. On this trip, I found a number of things I wanted to grab immediately even though they were not on my shopping list.	.79		
Purchase Acceleration			
V14. On this shopping trip, I purchased item(s) that I had not planned to purchase.	.83		
V15. I purchased more products than I would do normally on this trip.	.76	.85	.65
V16. I made a purchase decision immediately rather than postponing until the next visit to this store.	.82		

likelihood estimation was used. Table 1 reports the standardized factor loadings, composite reliability of each construct, and the Average Variance Extracted (AVE). Purification of the scales was performed by excluding items with low loading coefficients ($<.60$; Anderson & Gerbing, 1988) and large standardized residuals ($> |+2.58|$; Schumacker and Lomax 2004). One item in perceived desirability of products, "Products in this store looked unique," was dropped in this step due to a large standardized residual. Following the recommendation by Hair, Anderson, Tatham, and Black (1998), all constructs in this study had a least three items. The composite reliabilities of all four constructs were between .80 and .87, showing satisfactory reliability (Nunnally, 1978). Consequently, 16 items in total were submitted to test the structural model. The factor loading values for each individual indicator to its respective latent variable was above .65, showing strong convergent validity (Anderson & Gerbing, 1988). Discriminant validity is the degree to which extracted factors measured by different sets of indicators falling within the same latent construct are distinguished from one another (Kline, 1998). The AVE estimates reflect the amount of variance explained by a measure relative to random measurement errors and the result indicated that they ranged from .53 to .65, exceeding the recommended cut-off value of .50 (Fornell & Larcker, 1981). Fit indices including incremental fit index (IFI = .93), comparative fit index (CFI = .93), and root mean square error of approximation (RMSEA = .079) indicated good fits of the CFA model to the data.

Hypotheses Testing

A latent Structural Equation Modeling analysis was conducted to test the hypotheses. Although the proposed model had a significant chi-square value ($\chi^2 = 236.449$, $df = 95$, $p < .001$), other model fit indices indicated a satisfactory fit to the data (IFI = .92, CFI = .92, RMSEA = .08). All hypotheses were supported. Figure 1 shows the results of the structural model. As proposed, perceived seller-induced perishability, accelerated by a short renewal cycle, had a positive impact on perceived desirability of products ($\gamma = .57$, $p < .001$) and urge to buy ($\gamma = .25$, $p < .01$), supporting H1 and H3. Perceived desirability of products showed a significant positive impact on urge to buy ($\gamma = .37$, $p < .001$), which in turn promotes purchase accelerations ($\gamma = .61$, $p < .001$). Therefore, H2 and H4 were supported.



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$\chi^2 = 236.449$, $df = 95$, $IFI = .92$, $CFI = .92$, $RMSEA = .080$

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

Figure 1.

Results: The Structural Model

Conclusion and Implications

As the market becomes dynamic and volatile, maintaining inventory freshness through a short renewal cycle is becoming a norm to maintain consumer interest and promote frequent store visits (Byun & Sternquist, 2008; Cachon & Swinney, 2011; Ghemawat & Nueno, 2003). Despite the growing strategic importance of retailers' short renewal cycle in the fashion apparel industry, there has been a lack of empirical studies that examine consumers' psychological and behavioral reactions in the fast moving retail environment. Fast fashion retailers accelerate perceived perishability on the part of consumers by constantly releasing new merchandise and rapidly turning over the inventory through a short renewal cycle. This strategic orientation creates a here-today-gone-tomorrow retail environment (Byun & Sternquist, in press), thus prompting consumers' immediate action by increasing the time-sensitive nature of the store offerings. The purpose of this study was to examine the impact of perceived seller-induced perishability on perceived desirability of products, urge to buy, and purchase acceleration. The proposed model was tested in a field setting. All hypotheses were supported in this study. The following discusses the theoretical and managerial implications of the study.

First, this study extended the scope of the literature by investigating the impact of seller-induced perishability in the scarcity-related literature. This study empirically supports the hypotheses that perceived seller-induced perishability significantly enhance the perceived desirability of products and intensify the urge to buy while shopping. Namely, consumers who are aware of the perishability of fast-moving items tend to value the store offerings favorably and experience a strong urge to buy something on the shopping trip. Seller-induced perishability that fast fashion retailers utilize is implicitly communicated to the target market with no written or direct signals (Byun & Sternquist, 2008). Previous studies have focused on time-limited promotions using explicit semantic cues, whose promotional messages were mostly short-term and price-oriented. Beyond traditional promotional methods, fashion apparel retailers can increase the desirability of merchandise and the urge to buy by highlighting the perishable nature of their

offerings. This study also found that in addition to perceived seller-induced perishability, perceived desirability of products also increases the urge to buy. Therefore, it is instrumental to design the merchandise that is perceived as valuable, attractive, and distinctive to intensify the urge to buy, thus maximizing the impact of seller-induced perishability for fashion-forward consumers. Retailers who do not have capabilities to implement a short renewal cycle could also induce perishability of the store offerings through display techniques to give the impression that the products are changing quickly, or provide fresh or different looks by suggesting new coordination or simply changing merchandise layouts or positions in a window display or in a store on a frequent basis (Verhallen & Robben, 1994; Szybillo, 1973).

More importantly, a significant part of modern marketing strategy is inducing purchase acceleration for a company's own brand or in its own store (Neslin, Henderson, and Quelch, 1985). In particular, as fashion apparel retailers increasingly offer comparable merchandise and compete with strategies that can be easily imitated in a short time, they should direct more of their attention toward building a competitive retail environment which can promote a strong urge to buy and immediate action. Emphasis on price-led promotion encourages consumers' store or brand switching (Corstjens & Corstjens, 1999), particularly for product categories in which consumers often consider multiple brands at the same time. In this study, the urge to buy felt while shopping substantially accelerated purchases, leading shoppers to buy more than they do normally and to buy things immediately without delaying the purchase decisions. These findings are consistent with the previous studies that support the strategic importance of perishability for driving high-value sales for retailers (e.g., Corstjens & Corstjens, 1999; Krider & Weinberg, 2000; Tsiros & Heilman, 2005). Theoretically, the above findings support the psychology of physical proximity effects. When shoppers are physically close to the products of interest or in direct contact with the merchandise, they are less likely to resist the felt urge, thus ending up purchasing more than they planned (Beatty & Ferrell, 1998). Given consumers become more responsive when there are limited time windows to purchase a product (Verhallen & Robben, 1994), retailers may highlight a positive aspect of perishability of the store offerings. A strong urge experienced from perceived perishability and enhanced merchandise desirability are likely to encourage shoppers to engage with products, urging them to try on new trends or possess the products immediately.

Limitation of the Study and Directions for Future Research

Before drawing generalizations from these results, three main limitations of this study should be taken into account. This study targeted female shoppers from two types of fast fashion retailers in the United States. The findings of the study are also limited to offline stores. These limitations reduce the generalizability of the findings. In addition, although this study provides meaningful implications drawing from the data collected in a field setting, the 48-hour mail-back restriction led to a low response rate, limiting the representativeness of the sample.

Continued examination of consumer reactions to perceived seller-induced perishability guarantees promising future research. First, the proposed model should be replicated in diverse contexts to increase

the validity of the findings. For example, the validity of the findings could be improved with respondents from diverse retailers at diverse geographical locations, and with respondents with a broader range of demographic characteristics (including male shoppers and older consumers). Future studies should also replicate the model in the online setting as more retailers are inducing perishability of the store offerings by limiting their promotional times or introducing new merchandise or new deals frequently. Second, future studies may examine how consumers emotionally respond to perceived perishability. Emotions such as pleasure, arousal, and dominance have been extensively investigated as primary emotional responses to diverse stimuli in a retail environment (Mehrabian & Russell, 1977). Inclusion of such emotions in response to perceived seller-induced perishability will enrich the understanding of the consumer decision-making process, allowing retailers to identify specific emotions that contribute to the urge to buy and purchase accelerations. Lastly, consumer variables, such as shopping orientation (i.e., utilitarian versus hedonic) and impulsivity, could be potential variables which moderate the theoretical relationships proposed in the model.

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