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Ordering versus grabbing: the influence of temporal proximity on unregulated online buying behavior

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ORDERING VERSUS GRABBING: THE INFLUENCE OF TEMPORAL PROXIMITY ON IMPULSIVE ONLINE BUYING BEHAVIOR

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Abstract

A study is proposed to test the effects of temporal proximity between the encounter of a stimulus and the receipt of the product on impulsive online buying behavior. In traditional retail settings, temporal proximity between exposure to a stimulus and receipt of the product is an important factor influencing impulsive buying behavior. In most online shopping situations however, there is a time lag between the purchasing process and the receipt of the product; studies have nevertheless shown the widespread existence of impulsive buying behavior in online settings. A model is proposed that demonstrates how future consequences can influence online buying behavior and how the temporal proximity between the exposure to a stimulus and the possibility to conduct a purchase "on the spot" can override the consideration of future consequences and trigger impulsive online buying behavior. In order to test the model, a laboratory experiment has been designed. The expected findings will further the understanding of factors influencing impulsive online buying behavior, and will thus provide prescriptive insights for the design of business-to-consumer e-commerce systems.

Keywords: Impulsive buying, temporal proximity, electronic commerce.

1 INTRODUCTION

Over the past decades, marketing scholars have extensively studied impulsive buying (e.g., Rook & Fisher 1995, Rook & Hoch 1985, Stern 1962, Wood 1998). Despite numerous attempts to explain the underlying theoretical reasons for this form of consumer behavior, researchers have not managed to convincingly demonstrate the factors causing impulsive buying. While this may not be accomplished in the foreseeable future, studies have suggested some factors influencing impulsive buying behavior. With the technological advances in recent years and the rise of the Internet as a global marketplace, the phenomenon of impulsive buying can be observed in a new and different setting. Whereas many of the factors shown to promote impulsive buying behavior can be implemented in an online store, other factors cannot be realized using the current technology. Two important factors underlying the concept of impulsive buying behavior are disregard of future consequences and temporal proximity between the consumer's encounter with a stimulus and the receipt of the product. This study shows the influence of these factors on impulsive online buying behavior. The results of this study are useful for understanding the theoretical reasons underlying impulsive buying as well as determining the effectiveness of the attempts of e-businesses to increase perceived temporal proximity.

In the first two sections, I will discuss current definitions of impulsive buying behavior and attempts to explain this behavior, followed by a discussion of the importance of temporal proximity in this context. The subsequent section describes the possibilities and limitations with regard to temporal proximity and online shopping, followed by a description of a laboratory experiment designed to test the impact of temporal proximity on impulsive online shopping behavior. The paper will end with a brief conclusion and directions for future research.

2 LITERATURE REVIEW

Impulsive buying behavior, albeit being a widespread phenomenon with many (potentially negative) consequences for the individual consumer, is yet to be fully understood. Although many scholars have researched this topic, no unified definition has been agreed upon. On early definition distinguished four different types of impulsive purchases, a) pure impulse buying, b) reminder impulse buying, c) suggestion impulse buying, and d) planned impulse buying (Stern 1962).

Other researchers have been attempting to arrive at a more pragmatic definition. Bellenger, Robertson, and Hirschman (1978), for example, defined impulse purchases in terms of whether the purchase decision has been made prior to or after entering the store. This definition, while practical, does not differentiate the different types of impulse purchases; many people decide on what to buy in the store, using the store as a "shopping list" (Stern 1962). For sake of simplicity, some researchers have treated unplanned purchases and impulse buying interchangeably (e.g., Abratt & Goodey 1990), thus reducing the complexity of the definitions. Similar to Bellenger et al's definition (1978), this does not help to separate impulsive buying behavior from normal behaviors, such as reminder impulse purchases.

Rook and Hoch (1985) have identified five crucial elements of impulse buying, namely a sudden and spontaneous desire to act, a state of psychological disequilibrium (where the consumer loses the ability to control the impulse), the onset of psychological conflict and struggle (as the consumer has to weigh short term benefits and long term consequences), the reduction of cognitive evaluation (due to the buying impulse), and a lack of regard for the consequences of impulse purchasing. In 1991, Piron attempted to define impulsive purchasing. In order to arrive at a definition, he surveyed college students about their associations with the term impulsive purchasing. The result was that impulsive purchasing is regarded as being unplanned, being the result of exposure to a stimulus and that the purchase decision is made on-the-spot. In contrast to previous studies, Piron established that cognitive or emotional reactions might or might not accompany impulsive purchases; these reactions cannot be used to differentiate between regular and impulse purchases, as regular purchases might be accompanied by similar emotional or psychological reactions (e.g., when a person buys a new sports car). A generally agreed upon definition of impulsive buying has yet to be established. This study will

follow Rook and Fisher (1995) in that impulsive purchases are made "spontaneously, unreflectively, immediately, and kinetically" (p. 306) and that the thinking is "prompted by physical proximity to a desired product" (p. 306) and disregards future consequences.

The use of different definitions of different forms of impulsive buying behavior has led to the fact that the results of many of the studies examining impulsive buying are not comparable to each other. While there is an abundance of demonstrations (both in the academic literature and the popular press) that impulsive buying exists, there has been no single agreed upon theoretical explanation for the phenomenon in the literature. Early research has attempted to identify product characteristics of impulse products, such as low price, small size, or short product life (Stern 1962). Rather than focusing on the product as a reason for impulse purchases, researchers in the following years attempted to link impulsive buying to individual difference factors.

Rook and Fisher (1995) have conceptualized tendencies to engage in impulsive buying as a distinct consumer trait and demonstrated that an individual's impulse buying trait can be moderated by the influence of social norms. Other studies found that products that resemble the consumer's projected self-image are bought on impulse (Dittmar, Beattie, & Friese 1995). Deficiency in self-regulation (LaRose 2001, Baumeister 2002) is also among the theoretical explanations for impulsive buying behavior. This diversity in theoretical explanations can partly be attributed to the variety of operational definitions used by the researchers. Different studies have provided support for the different theoretical explanations; only one study has attempted to provide support for one theory while at the same time ruling out other theoretical explanations. LaRose and Eastin (2002) showed that deficient self-regulation was related to online shopping activity, whereas neither compulsive nor impulsive buying tendencies were significantly correlated with online shopping activity. However, the scale used to measure impulsive buying tendency (Weun, Jones, & Beatty 1998) in their study has a number of deficiencies and shows only minimal predictive validity. Furthermore, the researchers used regular online shopping activity rather than impulsive online shopping behavior as their dependent measure.

In addition to the diversity of theoretical explanations suggested, studies of impulsive buying behavior have used a variety of different methodological approaches. Many studies have relied on in-depth interviews, comparisons of shopping lists and shopping bags of mall customers, survey instruments, or field experiments (e.g., Koufaris 2002) to study impulsive buying behavior.

Given the nature of the different explanations, the different operational definitions, and the limitations in testing the factors underlying impulsive buying, it might not be possible to converge on one single theoretical explanation for this form of consumer behavior. Nevertheless, theoretical explanations for the underlying factors inhibiting or promoting impulsive buying behavior can and should be tested empirically.

One factor frequently cited in conjunction with impulsive buying is the disregard of future consequences during the impulse purchase (e.g., Hoch & Loewenstein 1991, LaRose 2001). Hoch and Loewenstein argue convincingly that impulsive buying is a time-inconsistent choice, which "would not have been made if it had been contemplated from a removed dispassionate perspective" (p. 493). As oftentimes, costs of impulsive behaviors only surface at later times (such as the development of lung cancer after smoking cigarettes), such costs are discounted when making the decision to engage in the behavior. In online shopping situations, the option to pay by credit card can induce such disregard for future consequences (LaRose 2001), as the balance only has to be paid off at a later time (although potentially, interest is charged, making the purchase more expensive overall). Companies such as Walmart.com, Guess.com, Continental Airlines, or Hotwire.com even offer the possibility to pay at a later time using "Bill Me Later®", offering interest free payment for up to 90 days, and promoting it as a way of "hassle-free shopping".

Another important factor contributing to impulsive buying is immediate gratification; almost all definitions of impulsive buying include this concept, either explicitly or implicitly. According to O'Donoghue and Rabin (2000), a "preference for immediate gratification implies time-*in*-consistent preferences" (p. 233) which "leads one… to overindulge in activities with immediate rewards and delayed costs" (p. 234). Similarly, Rook and Hoch (1985) define impulsive purchasing being accompanied by a "sudden and spontaneous desire to act" (p. 23) "without regard to the

consequences" (p. 24), which implies that a consumer making an impulse purchase is seeking immediate gratification. Further, Rook and Gardner (1993) mention that "primary consuming impulses … encourage immediate gratification" (p. 3). According to Piron (1991), the purchase decision is made "on-the-spot" (p. 513), where this can be interpreted in terms of both time and place. Bellenger et al. (1978) categorize purchases as impulse purchases when the purchasing decision is made after entering the store, this implies that there is temporal proximity between exposure to the stimulus and the reward (the receipt of the product). According to Hoch and Loewenstein (1991), both physical and temporal proximity, i.e., "the immediate availability of a reward" (p. 491), increase the consumers' desire for the product, thus promoting impulsive behavior. The authors claim that a reference point shift leads the consumer to imagine owning the product. The consumer then attributes negative utility to not having the product and positive utility to the object of desire, thus the consumer feels deprived by not having the product. Physical proximity is increased when the consumer has the chance to experience a product and is able to touch, feel, taste, or smell it. Hoch and Loewenstein imply that temporal proximity in a home shopping situation can take on two forms, temporal proximity to the ordering process and temporal proximity to the receipt of the product. In their paper, which has been published before the ubiquitous availability of online shopping, the authors mention toll-free order hot lines and express delivery options as examples of strategies used by direct-mail catalog companies to increase temporal proximity (Hoch et al. 1991).

Prior research about impulsive buying has primarily focused on "brick and mortar" retail settings. In their study regarding normative influences on impulsive buying, Rook and Fisher (1995) stated that the impact of social norms might be minimized in an anonymous setting such as home shopping. Business to consumer (B2C) electronic commerce in many instances offers such a setting, where the consumer can shop without being seen by store clerks, other shoppers, or family members. LaRose (2001) and LaRose and Eastin (2002) provide evidence for impulsive shopping behavior on the web. In particular, LaRose (2001) shows different features of online shopping websites which might inhibit or promote impulsive online buying behavior. Impulsive online shopping is promoted by factors such as e-mail alerts, lenient return policies, point programs, and 24/7 availability of shopping sites (LaRose 2001). However, for most of the products offered on the Internet today, physical proximity (e.g., the sight of a candy bar at the checkout line in a grocery store) is hardly ever provided. Except for digital products (Lal & Sarvary 1999), such as music, software, or electronic books, many of which can be downloaded on the Internet, the consumer has to wait until the actual product is delivered to his/her house; neither physical nor temporal proximity to the reward (the receipt of the product) are given. This can be considered a major drawback for e-businesses, both for planned or unplanned purchases. For example, in the case of planned purchases, a person running out of ink would rather drive to the next office supply store than order the cartridge online, if he/she needs the product immediately. The consumer cannot derive immediate gratification from the receipt of the product, neither if it was bought on impulse nor a planned purchase. To increase temporal proximity, business-to-consumer e-commerce merchants offer direct ordering through secure sites on the internet (with 24/7 availability), and many companies offer next-day express delivery, in Manhattan even same-day delivery by some merchants (e.g. the bookseller Barnes & Nobles), which increases temporal proximity to the receipt of the product. For many of the different product categories offered on the Internet, however, instant gratification (as is the case when a customer walks out the store with the candy bar she grabbed at the check-out counter) cannot be provided, instead, temporal proximity to the receipt of the product can only be increased;.

3 THEORETICAL MODEL AND HYPOTHESES

Based on the prior literature review, a model is presented that shows how temporal proximity to the receipt of a product and disregard for future consequences can influence impulsive online buying behavior. Specifically, it is argued that temporal proximity to the receipt of the product can override the regard for future consequences, leading to increased buying behavior (see Figure 1).

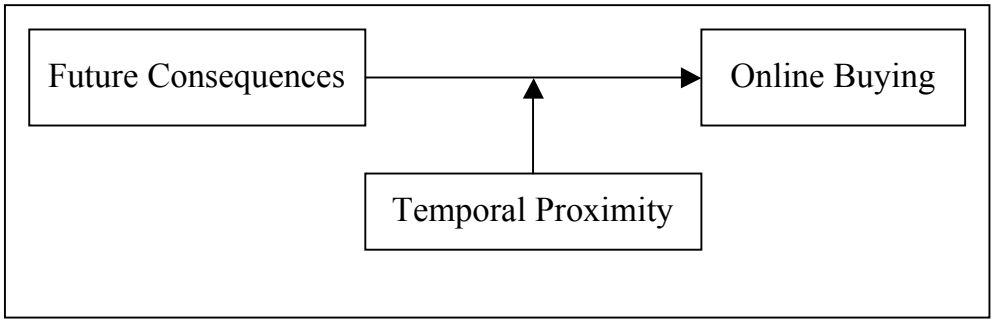

Figure 1. Research model.

According to rational views, consumers weigh the short- and long term consequences of making a purchase (see Hoch and Loewenstein 1991), thus, the likelihood of making a purchase should be influenced by the existence (and/or awareness) of future consequences.

> *H1: Future consequences influence online buying, such that when there are positive future consequences associated with the forfeiture of a purchase, customers are more likely to forgo the purchase in order to reap the future benefits.*

As discussed above, marketers use certain tactics to stimulate impulsive purchases; one of the tactics often used in traditional retail settings is increasing the temporal proximity of the receipt of the product (Hoch and Loewenstein 1991). This temporal proximity to the receipt of the product can lead to a shift in reference points (Hoch and Loewenstein) during which future consequences are disregarded, and thus trigger an impulse purchase.

> *H2: An increase in temporal proximity will override the effects of future consequences on online buying, such that consumers are more likely to make a purchase when temporal proximity is increased, even if there are positive future consequences associated with not making the purchase.*

4 METHODS

The proposed study will employ a laboratory experiment using student subjects to test the effects of temporal proximity and future consequences on online buying. Specifically, the proposed study will employ a 2 x 2 full factorial design, manipulating future consequences (present/absent) and temporal proximity (high/low).

Participants and Design. Subjects in this study are undergraduate business students receiving a modest amount of course credit for the participation in the experiment. Although the effects of using college students in experimental research are somewhat unclear (Peterson 2001), using college students is appropriate for the proposed experiment, as it is conducted in the context of online shopping,. The students are primarily young adults, which is a population segment heavily using online shopping (Hoffman, Novak, & Venkatesh 2004). Using a laboratory experiment will help increase precision and control (Calder, Phillips, & Tybout 1982, McGrath 1982).

The subjects will be randomly assigned to the conditions. A pilot study will be conducted to arrive at an estimate of the effect size to be expected in order to determine the sample size needed for this experiment.

Materials. A mock online music store will be set up to provide for the possibility to create different stimuli for the respective groups. At the same time, this setup allows to control for any unexpected modifications in visual layout etc. of a real online store.

Manipulation of future consequences. In the context of this experiment, future consequences will be operationalized in the form of a delayed (potential) reward. All participants will be provided with 5 "virtual" dollars they can spend while going through the online store. In the future consequences – absent conditions, the virtual money will be "lost" at the end of the study. In the future consequences – present conditions, the subjects will be informed (before the experiment) that they have the opportunity to buy lottery tickets with the money they haven't spent; they have the chance to win a larger dollar amount at a drawing to be held several weeks after the experiment. Both the amount and the time lag will be determined following the procedure used by Green, Fry, and Myerson (1994); specifically, the value of the future reward is chosen such that the value is higher than that of the immediate reward.

Manipulation of temporal proximity. As the online music store only contains digital products, temporal proximity will be manipulated by offering the opportunity to instantly download the target product versus receiving the product at a later time. In order to control for differences in tangibility of the product (e.g. computer file versus CD with jewel case and cover/inlet) across the conditions, the instant download also includes shipment of the tangible product

Procedures. The subjects are asked to browse through the mock online music store and "buy" any products they want. At a certain point in time, the subjects will receive a pop-up ad on their screens advertising a product category on sale at the online store (a selection of the Billboard Top 10 songs, see Figure 2). The ad in the temporal proximity condition mentions that the product is available for instant download; the subjects in the control condition receive the same advertisement, the instant availability is not mentioned.

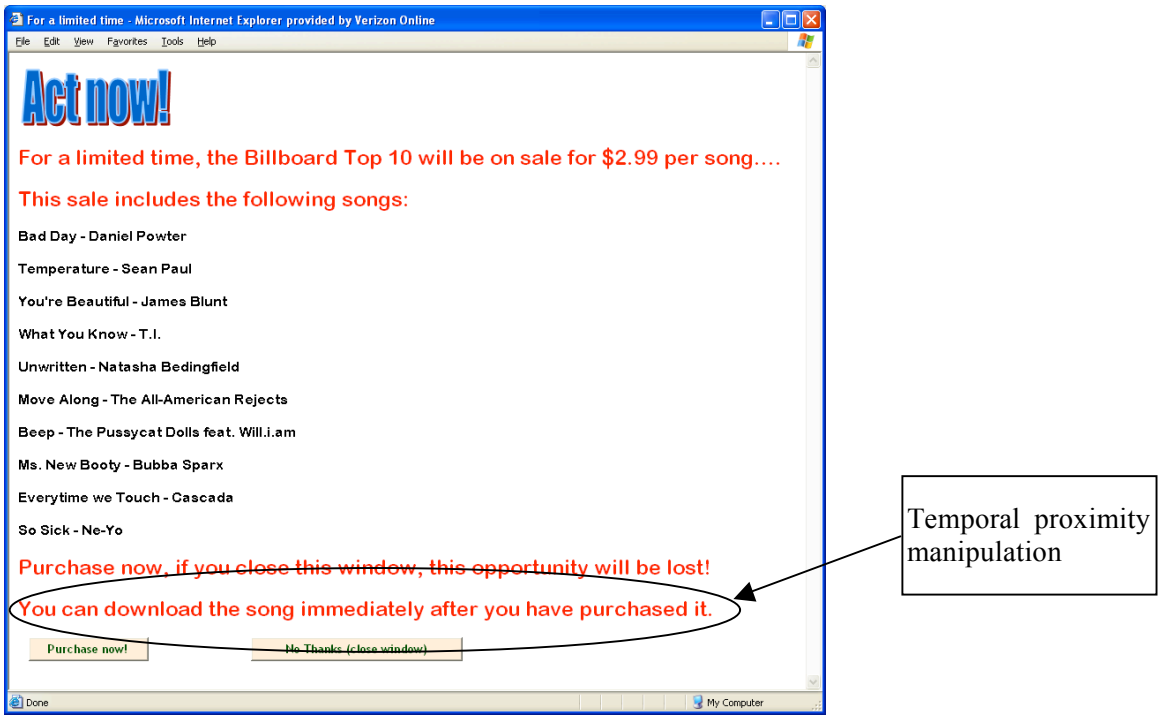

Figure 2. Pop-up ad (high temporal proximity condition).

Measures. The dependent variable will be the amount of virtual money spent by clicking through the pop up ad in the mock online store. As the results can be potentially influenced by individual difference factors such as (trait) buying impulsiveness (Rook and Fisher 1995) and consideration of future consequences (Strathman, Gleicher, Boninger, & Edwards 1994), instruments to measure these factors (adapted from Rook and Fisher and Strathman et. al) will be administered during a separate

session. Further, Zaichkowski's (1994) revised personal involvement inventory will be administered to assess the students' involvement with the purchase situation[1].

Data analysis. The data will be analyzed using ANCOVA, with buying impulsiveness, involvement, and consideration of future consequences as covariates.

5 CONCLUSION

This paper presented temporal proximity as an important factor influencing impulsive buying behavior. The expected results demonstrate that temporal proximity to the receipt of a product can override an individual's regard for future consequences, and thus increase impulse online buying behavior. This has important implications for online retailers, who can increase temporal proximity especially in the case of digital products (Lal & Savary 1999), and can thus increase their sales. Further, the results of this study will also help to shed light on how features increasing (perceived) temporal proximity (such as one-click shopping) can increase unplanned purchases.

Future research can focus on the effects of temporal proximity and future consequences on impulsive online buying behavior for different individuals (such as individuals high or low in trait buying impulsivity or consideration of future consequences). While the present study will measure these factors, no relationships are hypothesized. Further, future research could replicate the study using different product types (both digital and nondigital) in order to rule out the effects of the products used in the current study. As the present study uses student subjects, replicating the results using "real" shopper using "real" money would also be helpful to further the confidence in the expected results. Finally, the present study operationalized future consequences in the form of a delayed reward. To increase ecological validity, future research could introduce negative future consequences associated with the impulse purchase, such as delayed costs (e.g., resembling finance charges for credit cards).

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