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## Impulse buying on the internet

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# IMPULSE BUYING ON THE INTERNET

A Thesis

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Master of Science

in

The Department of Information Systems and Decision Sciences

by

Claire Elizabeth Crafts  
B.S., Southern Methodist University, 2007  
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## **Table of Contents**

Acknowledgments .....	ii
List of Tables.....	iv
List of Figures .....	v
Abstract.....	vi
Introduction .....	1
Objectives .....	4
Literature Review .....	5
Consumer Attributes.....	5
Types of Impulse Buying .....	8
Website Attributes.....	10
Marketing with Technology .....	18
Flow .....	25
Discussion .....	26
Survey .....	31
Hypotheses .....	31
Method.....	37
Results .....	43
Discussion .....	51
Limitations.....	60
Future Research.....	61
Conclusion.....	63
References .....	65
Appendix A – IRB Exemption Application.....	67
Appendix B – Survey .....	83
Appendix C – Factor Analysis .....	96
Appendix D – Correlations Matrix.....	97
Appendix E – Descriptive Statistics.....	99
Vita.....	100

## **List of Tables**

Table 1: Pre-Purchase Activity and Category Cross Tabulation .....	45
Table 2: Deciding Factor and Category Cross Tabulation .....	46
Table 3: Pre-Purchase Activity and Deciding Factor Cross Tabulation .....	46
Table 4: Gender and Category Cross Tabulation .....	47
Table 5: Gender and Deciding Factor Cross Tabulation.....	47
Table 6: Gender and Pre-Purchase Activity Cross Tabulation .....	48
Table 7: First Regression.....	50
Table 8: Second Regression .....	51
Table 9: Third Regression.....	51

## **List of Figures**

Figure 1: Rue La La Product Page .....	2
Figure 2: Predictors of an Impulsive Purchase.....	30
Figure 3: Personalization Elements .....	32
Figure 4: Customer Satisfaction Elements .....	34
Figure 5: Flow Elements.....	36
Figure 6: Frequency of Online Purchases.....	44
Figure 7: Online Marketing Tools .....	60

## **Abstract**

Technology makes buying faster, smarter, and more convenient for consumers, and supplies endless opportunities for impulse buying. Research of this topic examines influencers for impulsive online shopping, and marketing techniques used to encourage such actions. After a thorough literature review to identify important factors relating to impulsive purchases and to develop hypotheses, a survey is conducted to provide data on which the hypotheses can be tested. The survey is divided into four sections examining the effectiveness of online marketing techniques, shopping habits, Internet habits, and questions relating to a recent online impulse purchase. Theories to test include ones relating to customer service, customer impulsiveness, website personalization, time pressure created by websites, comparison shopping, and the flow of an Internet session. After the running of several regression analyses, the researcher finds the most significant factors for online impulse purchases are those that are important in offline retail outlets as well. Technology does not create impulse buyers, it provides impulsive consumers more resources to shop and the ability to complete transactions in a short amount of time, making those purchases truly a reaction to an impulse.

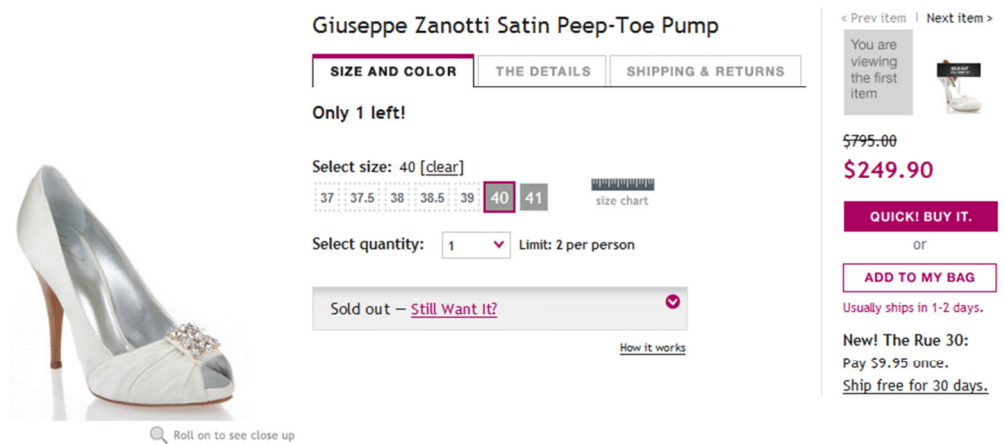
## **Introduction**

With online retail sales steadily increasing, and projected to continue doing so, companies are trying to capitalize on the convenience of online shopping by incorporating strategies to encourage impulse purchases. With the continual evolution of technology and increased experience in online marketing, websites have become very innovative in encouraging impulse buying. In fact, some websites rely solely on impulse purchases, which for the purpose of this paper an impulse purchase is the purchase of any unplanned item. Websites such as RueLaLa.com, Ideeli.com, and HauteLook.com are just several of a new group of websites that revolve around customers' impulse to shop. The founder of HauteLook, Adam Bernhard, describes this type of shopping as "discovery-based" and believes it is the future of online shopping (Moore, 2010, p. 28). The idea behind these websites is similar to sample sales. Most sites require an invite from a current customer before a new customer can create an account. This seems more like a feature to give the feeling of exclusivity because it is not hard to get into any of these websites. The current customers receive incentives to invite friends. For example, Ruelala.com will give the customer \$10 credit for each friend invited that makes a purchase.

Once the customer creates an account on these types of websites he/she has access to the "boutiques." The boutiques are the daily offerings for sale. Usually a boutique is discounted items from a specific brand, but occasionally it will be multiple brands with an underlying theme. Each boutique is available for a limited amount of time, usually about two days. However, the quantity of the items is not guaranteed. So, the customer receives a daily e-mail about which boutiques are new that day and are about to open and immediately wants to see what items are available before they become sold and no longer



available. This is one aspect of encouraging impulse buying, but they go even further. Once the customer is in the boutique the website will display if certain items are almost gone, creating a sense of urgency. The websites even have features like a quick buying function that does not even take the customer off the product page. All that is required is that the



**Figure 1: Rue La La Product Page**

customer select quick buy, a pop-up window appears asking to confirm, and then the item is purchased using stored credit card information. The website also has free shipping for thirty days once the customer purchases an item to encourage the purchase of multiple products. If the customer buys something in the morning, then sees another item a few days later there is no additional shipping charge. This helps to decrease the likelihood a customer will decide against an item, especially something small, because of high shipping charges. For the customer, it costs the same to ship one item as it does an unlimited amount of items over the course of a month. Figure 1 shows a product page with many of the above mentioned elements in practice from the website Rue La La. The website creates a sense of time pressure by informing the customer that only one pair of the shoes pictured is left in the selected size. Then, the website tries to minimize the decision making process by including a “Quick! Buy it.” button so that the customer can react to the sense of urgency instead of really contemplating the purchase.

Ruelala.com, Ideeli.com, HauteLook.com all started out with clothing, shoes, and accessories mainly for women. However, after having so much success they have greatly increased their market. They now offer jewelry, beauty products, furniture, and travel experiences. Although the sites seem to cater more to women, they are now including more products for men.

An article in *PCWorld* describes the members-only shopping experience as, “The ticking clock, the discounts, and the knowledge someone could grab an item before you do are a recipe for impulse buying. And in this economy, the temptation to buy discounted goods is especially strong – and dangerous” (Mies, 2009, p. 22). These types of quick sale websites have become very innovative in encouraging impulse buying and it has been interesting to see it develop over time. Many customers are probably very aware of what they are doing, but they still rely on their emotions when seeing a good deal and wanting to buy it. Especially when the customer has the additional knowledge of limited quantity because they do not want the feeling that they missed out on buying something they would have liked after the item has been sold out online. Then, after making a quick purchase decision to avoid feeling like they missed out they may be left wondering if the product was really needed. Having the quick buy option really makes the impulse purchase so much easier because it takes away a lot of the decision making process. When impulse buying in a store the customer can carry the item around and think about whether or not he/she wants to make the purchase. However, on these websites the customer cannot hold an item to think about it. The user either has to buy or risk the item being sold out if they take the time to think about it. Then, once they have paid the shipping they might as well buy something else. This is especially true for a smaller item that the customer does not think

is worth the shipping cost, but if once they find one thing they like it is much easier to justify additional items since the shipping is the same.

## **Objectives**

The objectives of this paper are to look at the research done on the causes of impulse buying and how retailers are trying to incorporate functions in their websites and online marketing strategies to encourage impulse buying on the Internet. In addition, a survey conducted by the researcher will provide insight into actions and feelings preceding the impulse purchase and what conditions lead to the user making a purchase. Impulse buying in a retail store seems easy to encourage because there are a lot of visual stimulations retailers can use to get people to buy something they were not expecting to purchase. Customers can see sale signs that draw them to certain areas to see what kinds of deals are available. There are also those little knickknacks by the cash register that are easy to pick up and add to the purchase. In addition, people most likely do more browsing in actual retail stores that results in the purchasing of unexpected products. However, Internet retailers are in a unique situation because they have the ability to access a customer at any time through text, email, displays ads, and social media. These outlets allow stores to reach out to customers who may not even be online planning to buy products and draw them to their sites for impulsive purchases. Although there are challenges for retailers on the internet with many of the techniques still being in an experimental phase, there are also a lot of opportunities for growth and creativity.

## **Literature Review**

### **Consumer Attributes**

Consumers have more outlets than ever with all the technology available for shopping, and with that technology they have less time to think about a purchase. Understanding impulsive buying habits is important for retailers to make use of the available resources and increase sales. Although technology may have the ability to increase access to retail outlets, certain factors behind what goes into an impulse purchase purely have to do with characteristics of the individual. One example is in “Spent Resources: Self-Regulatory Resource Availability Affect Impulse Buying,” where the authors look at possible reasons why impulse buying happens and why shoppers sometimes show restraint (Vohs & Faber, 2007). Their theory is that people have a limited amount of self-regulatory resources available, and once those resources are depleted by one action they will have less control over another action. For example, if someone exerts self-control for one action they may later not be able to draw upon that self-control when faced with the decision to make an impulsive purchase. The authors conducted three experiments on college students to determine the price valuation of products and the impulsive purchase of products between a control group and a group whose self-regulatory resources were depleted. The results of their experiments supported their theory on self-regulatory resource depletion. When students were given some sort of task that required mental suppression before being asked questions about product valuation and being given the opportunity to purchase items, they were much more likely to value products at a higher cost and were much more likely to spend more money on more products than students who did not undergo the mental suppression (Vohs & Faber, 2007).

In addition to looking at how consumers exert self-control and its depletion over repeated application, a general impulsiveness trait held by the consumer should be a predictor for the likelihood of making impulse purchases. "Impulse buying and variety seeking: A trait-correlates perspective" examines the relationship between traits, such as impulsiveness, and impulse shopping. The authors for this study look at the correlation of three consumer traits: consumer impulsiveness, optimum stimulation level, and self-monitoring and how these traits correlate with impulsive buying and variety seeking (Sharma, Bharadhwaj, & Marshall, 2010). To evaluate these traits, the authors first conducted a survey of shoppers as they exited a large mall over the period of four weeks. After running several regression models and creating interaction terms, the authors concluded that their research support established principles that impulse buying and variety seeking have similar psychological origins. Consumer impulsiveness and optimum stimulation levels have a positive correlation in relation to impulse buying and variety seeking:

Consumers with high scores on CI and OSL are likely to indulge in a greater degree of impulse buying as well as variety seeking in comparison to those with low scores on these two traits. CI has a stronger influence on impulse buying than on variety seeking. Similarly, OSL has a stronger influence on variety seeking than impulse buying. Thus, both these behaviors seem to have similar psychological origins but differ in the intensity of possible motivational triggers. In other words, CI seems to be a stronger trigger for impulse buying than variety seeking and vice versa for OSL (or, change seeking tendency). (Sharma, Bharadhwaj, & Marshall, 2010, p. 281)

This study shows what traits are significant for influencing impulse buying and that impulse buyers also seek product variety. These are important features for retailers to understand for their tactics both in stores and online.

Another consumer attribute is how one rationalizes the purchase of an unplanned item. "Do I need it, do I, do I really need this?": Exploring the Role of Rationalization in Impulse Buying Episodes," looks at how consumers will rationalize impulse buys instead of using rationalization to control impulse buys. The authors wanted to study the use of neutralization techniques usually applied to problematic behavior in context with impulse buying:

- 1) Denial of responsibility: A circumstance in which one argues that one is not personally accountable for the behavior because factors beyond one's control are operating; e.g. "Was such a one-off bargain and my friends insisted that I buy it."
- 2) Denial of Injury: A circumstance in which one contends that the consequences of the behavior are not really serious e.g. "What's the big deal, it was such a small purchase anyway."
- 3) Denial of Victim: A circumstance in which one counters the blame for personal actions by arguing that somebody else is the victimizer; e.g. "It's the retailer's fault; the way they promote these things, it's like you buy them before you realize it."
- 4) Condemning the condemners: A circumstance in which one deflects fault by pointing out that those who would condemn engage in similar activities; e.g. "Nowadays, everybody indulges him/herself by buying something absolutely unnecessary once in a while."
- 5) Appeal to higher loyalties: A circumstance in which one argues that behavior is the result of an attempt to actualize some higher order ideal or value; e.g. 'I was so tired and frustrated, and I really needed something to lift my mood so I just had to do it.' (Chatzidakis, Smith, & Hibbert, 2009, pp. 249-250)

To conduct this study, the authors interviewed twenty women who had gotten into debt as a result of their impulse shopping. After the interviews, the authors concluded that the participants readily employed neutralization techniques to rationalize impulse purchases even when they were not asked to rationalize them (Chatzidakis, Smith, & Hibbert, 2009, p. 251). The authors also found that not all five techniques were used equally. One

commonly used technique was denial of responsibility, where the participant claims that someone else really pushed her to buy a certain product, or spend more than was intended. Denial of injury was another popular technique used, where the participant would justify a purchase by saying that it was really inexpensive, or that she would get a lot of use out of the product. The third commonly used technique was appealing to higher loyalties, where the participant felt she deserved something new. Finally, they also found participants using two additional techniques that were not part of the original scope. One is where the participants rationalize purchases by thinking they have some kind of credit because family members may have more of certain items, or if they think they have gone out of their way for family. The second unexpected technique is one in which the participant claims the impulse purchase was actually necessary (Chatzidakis, Smith, & Hibbert, 2009).

### **Types of Impulse Buying**

It should be noted that not all impulse buying is the same. While the purchase of an item may have not been planned for a specific shopping trip, it does not automatically mean that it was not needed or not previously considered. “The effects of sales promotion strategy, product appeal and consumer traits on reminder impulse buying behavior,” the authors specifically analyze purchases that were not planned, but when seeing a certain item the customer recalls that they need it:

According to the definitions of reminder and pure impulse buying, reminder impulsive buying behavior is relatively more planned and more objective- and economy-oriented than pure impulsive buying behavior. Therefore, it follows that the purchase motivation of reminder impulse buying is more rational than that of pure impulse buying, while the purchase motivation of pure impulse buying is more emotional than that of reminder impulse buying. (Shu-Ling, Yung-Cheng, & Chia-Hsien, 2009, p. 275)

The authors first conducted a study on female college students to try to better understand the difference between reminder impulse buys and pure impulse buys. They asked the participants a set of questions describing what types of products resulted from reminder and pure impulse, decision making process, and how they felt following the purchase. The results for this particular study found that many of their initial theories about the emotions for buying products as reminder impulse or pure impulse being different and the feeling of regret after the purchase was stronger for pure impulse buys were not supported (Shu-Ling, Yung-Cheng, & Chia-Hsien, 2009, p. 278).

In the second study for this article, the authors want to look at the relation between association of sales, promotion, product appeal, and consumer traits with reminder and pure impulse buying. The participants were given a purchasing scenario and were asked close-ended questions relating to that scenario. The aspects from this study that were found to be significant are that instant reward promotion will have higher numbers of reminder impulse buyers than a delayed reward promotion. Also, the interaction effect of promotion strategy and product appeal on reminder impulse buying is significant:

The interaction effect of promotion strategy and product appeal on reminder impulse buying is also significant. A utilitarian product appeal with a price discount promotion can promote stronger reminder impulse buying than with a premium promotion, and a hedonic product appeal with a premium promotion can promote stronger reminder impulse buying than with a price discount promotion. (Shu-Ling, Yung-Cheng, & Chia-Hsien, 2009, p. 282)

In addition, the interaction effect of sales promotion strategy and consumer traits on reminder impulse buying is significant. “Hedonic consumers prefer nonmonetary-based promotion over monetary-based promotions, but there is no significant difference between the two kinds of promotions for prudent consumers” (Shu-Ling, Yung-Cheng, & Chia-Hsien,



2009, p. 282). Knowledge gained from this article can help marketers understand how to categorize products and as a result how to best promote them towards either reminder impulse buyers or pure impulse buyers.

Another article looks at how the store image impacts impulse buying. The authors of the “Role of Store Image in Consumer Impulse Buying Behavior” article noticed that some retailers in India were focused on improving store image, while others were focusing on low prices. With these observations they wanted to see which one is the better driver for impulse purchases (M., Sivakumaran, & Sharma, 2009, p. 194). They surveyed shoppers at a mall about their experiences and “measured store image through its layout, music, employee friendliness and lighting” (M., Sivakumaran, & Sharma, 2009, p. 194). Their findings concluded that there is a positive relationship between store image and impulse buying. They suggest that retailers focus more on creating a pleasant shopping experience rather than trying to compete on purely low costs (M., Sivakumaran, & Sharma, 2009, p. 194).

### **Website Attributes**

Website characteristics would seem to have an important role in the impulsive buying process because that is all the consumer has to interact with and it could provide features that can encourage the purchase. “The Influence of Website Characteristics on a Consumer’s Urge to Buy Impulsively” examines specific website attributes may contribute to impulse buying. The authors theorize that website provided task relevant cues and mood relevant cues will have a significant effect on the perceived usefulness, but that that task relevant cues will be a stronger predictor of perceived usefulness. Their second theory is that mood relevant cues and task relevant cues will have a significant effect on

perceived enjoyment, but that mood relevant cues will be a stronger predictor. They also believe that perceived usefulness will have a positive effect on perceived enjoyment. Finally, they hypothesize that perceived enjoyment will have a positive effect on the impulse to buy and that the urge to buy impulsively will positively increase with the task relevant and mood relevant cues (Parboteeah, Valacich, & Wells, 2009).

The authors created two studies to test their hypotheses on college students. In the first study, the students were given a list of tasks (in order to see the specific areas of the website the authors wanted them to see) and one of four different versions of a website. Following the completion of the tasks they were given a questionnaire relating to the different variables being tested. After running the models, the authors found support for all of their hypotheses. Similar to first study, the second study gave participants one of four different versions of a website, “V1 (i.e., the control interface) contained both low-quality TR and MR cues. V2 included high-quality MR cues (e.g., VAP) combined with low-quality TR cues. V3 contained high-quality TR cues (e.g., better security and navigability) in conjunction with low-quality MR cues. Last, V4 has both high-quality TR and MR cues” (Parboteeah, Valacich, & Wells, 2009, p. 70). However, this study gave the students a specific scenario to work from and measured the level of impulsiveness based on one of five options they were given. The results from study two support the findings from the first study, “these results converge with our central hypothesis, that the quality of the TR and MR cues will stimulate both cognitive and affective reactions, which subsequently affect both UBI and the magnitude of such impulsive urges (Parboteeah, Valacich, & Wells, 2009, p. 73).”

An additional finding during this experiment was that the authors found that many consumers displayed the urge to buy impulsively regardless of the quality of task relevant and mood relevant cues. The probability and degree of impulsiveness of consumers increased with improvements to either type of cues. For example, Amazon implemented a task relevant cue to increase impulse buyers with a one-click ordering process. “However, this research demonstrates that both the likelihood and magnitude of online impulse buying are likely to be maximized when the website provides both TR and MR cues of high quality” (Parboteeah, Valacich, & Wells, 2009, p. 74).

The authors of “Apparel Impulse Buying on the Internet: Mediating Effects of Browsing” studied “the relationship among product attributes, browsing and online impulse buying for apparel products, and to investigate the mediating effect of browsing on the Internet among Korean consumers” (Eun Joo & Eun Young, 2009, p. 375). They decided to focus on apparel because, at the time of the study, that was the biggest percentage of products sold on the web. As a result they thought that impulse purchases of apparel “may be influenced by hedonic browsing rather than utilitarian browsing and also be influenced by product attributes on the Internet” (Eun Joo & Eun Young, 2009, p. 375). To conduct this study, the authors presented a questionnaire to college students in Korea. They found that hedonic browsing and product price can encourage online impulse buying, but that utilitarian browsing and product variety can discourage impulse buying (Eun Joo & Eun Young, 2009, p. 376). They suggest:

Online retailers need to focus as much on entertainment, interest and excitement as they do on getting supply factors, such as pricing, promotion, and merchandise selection. They can increase consumers’ hedonic browsing by developing site design, product displays, events, and entertainment strategies. Efforts to increase market shares in fashion retailing should shift

from a concern with merchandise breadth, depth, and quality to include an emphasis on creating a pleasant, entertaining experience for gaining a competitive advantage in the dynamic marketplaces. (Eun Joo & Eun Young, 2009, p. 376).

How websites personalize the shopping experience for consumers is another important topic when looking at the role of website characteristics on impulse buying. In “Online social capital: Understanding e-impulse buying in practice,” the authors wanted to explore “the potential impact of socially constructed e-atmospherics on impulse buying” (de Kervenoael, Aykac, & Palmer, 2009, p. 320). The article goes on to discuss various propositions and supports its thoughts with research from other articles. The authors come to the conclusion that online retailers need incorporate more personalization and specialization into their websites for customers and that the “one-size-fits-all model may have reached its limits” (de Kervenoael, Aykac, & Palmer, 2009, p. 326). They say that current websites are controlled too much by the technology departments and that marketers need to have more influence on design and content to encourage more impulsive buying. Their research also suggests that “in the future, normative evaluations of impulse buying will need to be assessed against the cyber-cultural capital created online and not using the offline traditional point of references” (de Kervenoael, Aykac, & Palmer, 2009, p. 326). The authors are saying that the Internet offers tremendous potential for creating a personalized experience for customers, which in turn will encourage impulse buying, and should be utilized. Retailers should not keep using as a reference point what retail stores do in practice because the Internet is creating its own version of common practices. Understanding the differences will better help online retailers target their products and their site to specific groups and create a unique space.

In addition to website personalization, customer satisfaction with the service received through the website should also be examined when determining the factors behind impulse purchases. The authors of, "The impact of electronic service quality's dimensions on customer satisfaction and buying impulse," want to measure the "effects of electronic service quality dimensions on customer satisfaction and buying impulse" through a questionnaire "administered to 4,109 clients of leading French e-commerce Website specializing in electronic and cultural goods" (Bressolles, Durrieu, & Giraud, 2007, p. 37). The six dimensions they use for this study are the quality and quantity of information, the ease of use, the design, reliability, security, and interactivity and personalization (Bressolles, Durrieu, & Giraud, 2007, pp. 40-41). The authors hypothesize that the six dimensions will have an influence on customer satisfaction and an influence on online impulse buying. They expect to see a correlation between the higher the customer's satisfaction with a website resulting in the higher probability of the customer experiencing impulse buying. Lastly, that functional impulse buying is a controlling variable between the six dimensions, satisfaction, and impulse buying (Bressolles, Durrieu, & Giraud, 2007, pp. 41-43). The results of their analyses show that all six dimensions have a positive impact on customer satisfaction, with design and ease of use being the highest contributors. For the authors' theory concerning the significance of the six dimensions on impulse buying they found that only interactivity/personalization and ease of use are important. Their findings show that personalization and interaction features can increase impulse purchases, but if a website is too easy to use it can actually hurt impulse buying figures because it reduces browsing. Their third hypothesis proved true, the link between customer satisfaction and impulse buying is positive and significant. Customers are more likely to make impulse

purchases on a site where they are enjoying the experiences. Finally, the test for the functional impulse buying variable as being the controlling variable showed mixed results, for some variables it is significant and others it is not significant (Bressolles, Durrieu, & Giraud, 2007, pp. 44-48). In the conclusion of the article, the authors state:

For a Website to “increase” buying impulse, it is essential that its visitors feel satisfied with the global quality of the Website, including both “utilitarian” dimensions (e.g., Ease of use and Security/privacy) and “hedonic” ones (e.g., Design). The hedonic potential of a commercial Website is limited compared to that of traditional stores. Thanks to elaborate design and increased ease of use, however, one can expect perceived pleasantness of visits to increase, thus creating an impulsive buying mood among visitors. This research also demonstrates that even variables such as Security/privacy and Information clarity can influence highly emotional behaviors such as impulsive purchasing, both directly and indirectly (through satisfaction). (Bressolles, Durrieu, & Giraud, 2007, p. 49)

Another technique being utilized by online retailers is the presentation of an additional item available for purchase once the customer has begun the checkout process, the online equivalent of displays around the register. “Factors influencing impulse buying during an online purchase” created a study that gathered real time data during the utilization of a similar website feature. “Using actual purchasing behavior by visitors to a High School Reunion web store, this study examines the factors that lead to an increased willingness by online consumer to purchase impulse items” (Jeffrey & Hodge, 2007, p. 367). For this study, the authors theorize that consumers usually “aggregate all purchases in a single online purchasing event,” which allows each additional impulse item less noticeable when spending is already high (Jeffrey & Hodge, 2007, pp. 370-371). Their second theory is that people are more likely to make an impulse purchase when given a reason to purchase. The study looked at transactions for customers of the high school reunion

website at three different value points (\$30, \$60, and \$110) and the customer's reaction when given additional items to add to their purchase on the checkout page. These items on the checkout page were not items available on other parts of the website. Some customers saw a condition that a \$1 donation would be given to a charity with the purchase of an additional item and other customers were sent to a control page that did not see any information about a donation. After running regression models, the authors found that the amount spent prior to checkout was significant to the likelihood that the customer would buy an impulse item. The more the customer spent, the more likely he/she was to buy an impulse item. The relationship between household income and likelihood to purchase an impulse item was significant. The lowest household income category was more likely to buy an impulse item at all price points than the medium and higher income levels. They also found that giving the shopper a reason to buy an impulse item, the \$1 donation, resulted in higher amounts of impulse purchases versus the shoppers who did not know about the donation (Jeffrey & Hodge, 2007).

This is a valuable study to learn from because the data used is actual data from an e-commerce website. The consumers were not aware that they were part of a study on impulse buying and the figures have real meaning because the customers were spending their own money.

Finally, when discussing website attributes, the type of media displayed should be considered. Website developers have many options and possible combinations when creating retail sites besides the use of text. "Effects of media formats on emotions and impulse buying intent" examines how website content affects impulse buying. The authors set up an experiment to "explore the effects of media formats on the emotions and impulse

buying intentions for music compact discs (CDs). Three distinct media formats of World Wide Web pages were set up: (1) the text of the lyrics, (2) still images from the song's music video and (3) the music video itself. Each had a varying degree of visual/verbal intensity while simultaneously playing the soundtrack in all three conditions" (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003, p. 247). Their hypotheses were that participants watching the music video will have the highest amount of positive emotion, that the greater the positive emotion a participant feels the greater the intent to impulse buy, that the participants who experience the video will have the greatest impulse buying intent, and that the participants' emotional responses will have a controlling effect of media format on their intent to impulse buy (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003, pp. 250-251).

The results of this study showed that participants exposed to the video stimulus did not show greater amounts of positive emotion than the other two conditions. The participants viewing the text of the lyrics had stronger positive emotions than the still images, but no significant difference was found between the video and the text. The authors' hypothesis two was partially supported because they found that arousal was a significant predictor for impulse buying, but pleasure and dominance were not significant predictors. The authors also found that the media type was significant on impulse buying, but there was not a significant difference between the text and the video. Fourthly, their results showed that the emotional response variable was mediating the effect of media format on impulse buying (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003, pp. 253-255). Since their findings were not what the authors were expecting, they suggest:



One explanation for these findings might be that the presence of the song's lyrics involved greater cognitive skills of the audience. Krugman (1977) suggested that reading is more cognitively involved than simply viewing and previous studies have suggested that mass media can invoke differential cognitive involvement (Grunig, 1983; Brians and Wattenberg, 1996). It is therefore possible that text stimuli could generate higher impulse buying intent based on higher cognitive involvement. (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003, p. 255)

## **Marketing with Technology**

With consumers always connected to the Internet, marketers have the ability to reach potential customers at any time and give them access to begin shopping right away. Text marketing is one outlet and "Anytime, Anywhere: Measuring the Ubiquitous Consumer's Impulse Purchase Behavior" hopes to explain the correlation between interaction with the customer through technology and impulse buying is. This article focuses mainly on communication with customers through Short Message Service (SMS), the ability of marketers to make it personalized, and how it encourages impulse purchases (Davis & Sajtos, 2009, p. 15). The authors hypothesize:

H1: Consumers with high levels of service involvement (SMS) [SINV] are expected to exhibit high levels of service specific (SMS) impulse buying behavior [SIBTS].

H2: Consumers with high levels of generalized impulse buying tendency [GIBT] exhibit high levels of service specific (SMS) impulse buying behavior [SIBTS].

H3: A positive relationship exists between service involvement (SMS) [SINV] and generalized impulse buying tendencies [GIBT]. (Davis & Sajtos, 2009, pp. 17-18)

The authors used results from a questionnaire conducted on students for their data. They found that "both general impulse buying tendency and service involvement have a strong positive relationship with service specific impulse buying tendency" (Davis & Sajtos,

2009, p. 21). The authors suggest that their findings have significance for mobile marketers and how they should conduct campaigns. First, marketers should recognize the relationship between involvement, general impulse characteristics, and impulse buying inclinations relating to a specific service. Second, marketers should target customers with a higher propensity to make impulse purchases. Third, campaigns for targeting impulse buyers should not be too complicated and take away the ability to be impulsive. Fourth, campaigns are designed with the capabilities of mobile phones kept in mind. Fifth, campaigns with higher hedonic features may raise the level of cognitive participation (Davis & Sajtos, 2009).

Marketers also want to make use of search engine advertisement and search engine optimization to reach consumers. "Google or BizRate? How search engines and comparison sites affect unplanned choices of online retailers," differs from many of the previous articles because it looks at the effect of a third party on impulse purchases instead of specific websites characteristics or personality traits. "The specific issue that we are interested in is the relative influence of search engines and infomediaries in unplanned choices of online retail stores. From a substantive standpoint, our findings can provide some implications to retailers regarding whether they should focus on (a) search-context related advertising via search engines or (b) price or product feature oriented promotions through infomediaries" (Papatla & Liu, 2009, p. 1039). The authors incorporate two theories into their study: household production theory and human capital theory. The household production theory assumes that customers pick an online retailer based on minimizing time spent, meaning that instead of taking too much time to compare retailers they would use what they can find the fastest. The human capital theory suggests that consumers either have human capital or

they do not have human capital. Consumers with human capital will usually go directly to websites they are already familiar with instead of using a search engine when needing to make a purchase. Consumers without human capital would generally have to search for retailers selling the product they are looking to purchase (Papatla & Liu, 2009, p. 1040).

The data used for this study was collected through an online survey by an outside research company and all participants had made at least one online purchase over the past year. The authors' key finding is that search engines have a greater effect on choosing an unplanned retailer than infomediaries. Other findings from the study are:

1. Retailer-related human capital plays a strong role in the online consumer's store choice decision. Further, the key factors that bring customers back to an online retailer are service, past purchases from the retailer and product assortment and clear display/explanation of prices.
2. Retailer characteristics such as posting prices clearly, and delivering the ordered products promptly, increase the likelihood that customers plan ahead and visit a retailer to make a purchase.
3. Providing information to assist consumers in research products is likely to bring customers back to the retailer that provides the information. (Papatla & Liu, 2009, p. 1044)

Their results emphasize the importance of search engines and placement within search results to encourage unplanned visitors to a site. This suggests that more of the advertising budget should be spent on search engine advertising and optimization than on relationships with sites like BizRate. The study also provides useful information on how to obtain return visitors through service and information.

Technology allows marketers to apply innovative new ways to reach people and decrease the transaction time to make impulse purchases truly impulsive. Several inventive companies are described in a June 6, 2011, article in *The New York Times* that discusses how television infomercial companies are also seeing the value of impulse buying

through the Internet and are developing technologies to expedite the purchasing process (Vega, 2011). Infomercials' whole business is built on impulse purchases by reaching out to people where they are and showing them the benefits of a particular product. "We're placing a big bet on that the industry that we think is in need of innovation," said Mike Fitzsimmons, CEO of Delivery Agent (Vega, 2011). These companies know that their tactic now needs to include a more aggressive Internet strategy to continue to reach out to people in their own environment.

AsSeenOnTV.com, which "has more than two million customers and 700,000 e-mail subscribers," is a main innovator in this area that will be launching new technology that essentially encourages impulse buying in late 2011 (Vega, 2011). One way AsSeenOnTV.com is planning on incorporating technology into their business strategy is by producing daily videos to post online of product demonstrations, as well as emailing the videos out to its subscribers. In addition, the company is also creating a Facebook application that allows customers to buy products straight from a product's page. An even more impressive innovation combines the watching of an infomercial and the convenience of buying the product online. The technology is referred to as audio fingerprinting and "will enable cellphones to decipher which infomercial a user is watching after the phone is held up to the television. The user will then be sent to a mobile Web site where the product can be bought through the cellphone" (Vega, 2011).

The goal for the inclusion of these Web-based technologies is get transactions processed faster, while customers still have that initial impulse and before they going through a decision making process. "If we have an opportunity for them to see a commercial and to react that quickly, the chances for us to make a sale increase

dramatically,' said Kevin Vick, a partner with Boston Ideas" (Vega, 2011). These technologies allow consumers to see a product, be amazed by it, and purchase it in a very short amount of time. To increase sales, these companies are trying to continually reduce that amount of time where a customer might rethink a purchase and decide against it. Sonia Makurdsik, marketing consultant for Hampton Direct, sums up the new online strategy of these companies by saying, "Flipping through the channel is not enough. Your brand message needs to be present wherever the consumer is" (Vega, 2011).

Social media and online marketing are becoming major tools for companies to reach out to customers. The goals are to get people talking about their brand and increase sales, but as the author summarizes in the article, "(Like) + (Retweet) = \$\$\$?," many companies do not actually know the return on investment for their efforts in social media (Manjoo, 2011, pp. 86-117). Companies are still in the experimental phase of social media marketing and still trying to determine its value and influence, "marketers can't predict or measure the impact of their campaigns with anything near the precision they're used to elsewhere online" (Manjoo, 2011, p. 87). As a result, there are many new companies sprouting up trying to help brands navigate through social media and create focused campaigns. Klout is one such company that specializes in measuring the influence of people on Facebook and Twitter in order for companies to better target those who will be the best at spreading their message. Klout has "amassed enough data to measure the influence of 75 million people online" and can process the numbers to identify things as specific as the "most influential people who talk about sneakers in Seattle, or the most-listened-to tweeters on skin-care in San Francisco" (Manjoo, 2011, p. 88). Currently, Klout's analysis ends here

because they have no way of tracking the influence those people had on subsequent sales once companies reached out to them to promote their products.

However, another company called Wildfire Interactive has greater ability to track a campaign's success. This company specializes in creating sweepstakes, contests, and other promotions that can be run through Facebook, making them "social" (Manjoo, 2011, p. 89). The Facebook application created by Wildfire Interactive provides a direct link that allows brands to measure the success of a particular campaign. "Still, Wildfire's campaigns suffer from a problem that's common with social-media marketing: Because they're so new, and because they often depend on catching uncertain viral cascades, their performance is difficult to predict" (Manjoo, 2011, p. 89). Brands go into these campaigns not really knowing what to expect and how their sales will be influenced. They are hoping for good things, but social media campaigns are not conducted with the same amount of research and facts as traditional marketing campaigns and mainly come out of "experimental marketing budgets" (Manjoo, 2011, p. 88). Companies are still trying to figure out the right formula in order to get the most out of their social media efforts.

Since determining a return on investment for social media expenses is something for which companies are still trying to develop a standard method of measurement, the current best practice is creating a call to action (Pullen, 2011, p. 61). This is where impulse buying comes up because the usual call to action is in the form of special offers and discount codes that are easy to trace back to social media. In the *Entrepreneur* article, "Dollar, Sense and Social Media Marketing," the author suggests companies monitor the impact of their social media campaigns by being consistent with their usage and compare sales against that schedule. "To link social media actions to results, track your activity on a

calendar. Try to be cyclical with in your posts. Make Mondays the day you post questions on Facebook to solicit customer interaction, for example, or offer coupons via Twitter on Thursdays so you can track coupon redemption over the weekends” (Pullen, 2011, p. 61). Not only does being consistent with social media posts help companies track sales in comparison, it also keeps the users involved with the company because if they know a coupon or special offer will be promoted a certain day of the week they will make an effort to check the company’s social media page.

As part of developing an online social media presence that has an impact on sales, Matt Monahan of Epic Media Group says, “Make sure you’re publishing offers and products to your newsfeed regularly, but make sure you blend it with content that’s also educational and entertaining. If you just try to sell through your newsfeed, you’re going to get low post quality score and end up with low algorithm relevance and not get as many impressions per post” (Cauley, 2011, p. 56). The author and contributors of the article, “The Social Experience,” discuss how social media campaigns should focus on the customers and their wants, and not just necessarily on pushing product, “consumers shy away from what they view as commercialism” (Cauley, 2011, p. 58). The best way to increase sales through social media outlets is to make the content engaging and entertaining, with some special offers mixed in to make the page about more than just sales. The article also pushes Facebook as the social media outlet of choice because it “reaches 70 percent of U.S. Internet users, up from 48 percent in August 2009” and “U.S. Internet users spend 10 percent of their online time on Facebook, more than Yahoo, Google, and YouTube” (Cauley, 2011, p. 58). In addition, a study by Buddy Media found that “brands posting outside of business hours had 20 percent higher engagement rates” than postings done within business hours

(Cauley, 2011, p. 59). The point of social media is to be able to reach out to customers and potential customers, and Facebook clearly has the numbers that would sound good to any company.

## **Flow**

In addition to research on impulse buying, theories on the flow experience may also give some insight as to why or why not an impulse purchase occurs. The author of “An exploration of flow during Internet use” looks at Csikszentmihalyi’s “eight dimensions of the flow experience: clear goals and immediate feedback; equilibrium between the level of challenge and personal skill; merging of action and awareness; focused concentration; sense of potential control; loss of self-consciousness; altered sense of time; and experience becoming autotelic or self-rewarding” and seeing how they apply to Internet usage (Rettie, 2001, p. 104). A focus group was used to receive input and examples of how users’ own Internet flow experience corresponds to the eight dimensions and their discussions were analyzed by the researcher. The results show that most of the participants identified with the main concepts of flow where they have been completely engrossed in an activity where they do not notice what is going on around them and lose track of time. Respondents felt like flow on the Internet happened when they were searching for some particular information (Rettie, 2001, p. 108). The people in the focus group found flow occurred when they were researching something specific and had a goal. Factors that inhibited this flow and disrupted the experience were slow websites, websites that were difficult to navigate, websites that were not frequently updated, unsuccessful searches, and advertising (Rettie, 2001, p. 108). These inhibitors broke the flow experience because they caused the user to lose concentration, caused feelings of loss of control, and reduced



involvement. On conditions that enable flow the author concluded that, “Flow is more likely to occur when they have a specific task than when they are just surfing for fun. When using the Internet for fun, there was less concentration and more likelihood of distraction” (Rettie, 2001, p. 109).

## **Discussion**

The research from “Spent Resources: Self-Regulatory Resources Availability Affects Impulse Buying” and “An exploration of flow during Internet use” show that the flow experience may actually reduce the likelihood of an impulse purchase. The first article discusses results from a test that suggests impulse purchases happen when consumers are tired of concentrating and making decisions. When they are mentally fatigued they are more likely to give in to the impulse to buy. However, the latter article states that a condition of flow is that there is great concentration involved and the user has a specific goal. Thus, multitasking may be a better predictor of a consumer making an impulse purchase because the user lacks focus. In the article “Can Teens Really Do It All?” the author discusses how people, especially teens, think they are much better at multitasking than they actually are and how it really inhibits their ability to focus (Bradley, 2011). One research studied Internet usage of volunteers during a typical workday and “on average, they juggled eight different windows at the same time, and they would spend barely 20 seconds looking at one window before flipping to another. When they were interrupted, people literally forgot what they were doing” (Bradley, 2011). This seems like the type of environment that would be more likely to produce an impulse buy because the retailer does not want the customer to think too much about the purchase, but more just to react.

All of the articles reviewed provide an interesting view on impulse buying and how to better incorporate impulse buying on websites. Using the idea of depleted self-regulatory resources increases the likelihood of impulse buying from “Spent Resources: Self-Regulatory Resource Availability Affects Impulse Buying,” marketers could try to incorporate an activity on the website to take advantage of that link. For example, if there was some type of game they could play that gave them an entry for a contest and that game somehow required the user to exert some kind of self-control, such not being able to click on a certain object but still obtain a certain goal. Then, once the game is completed the website could show a promotional item or featured category and get the customer to browse an unintended area of the website, possibly making an impulse purchase.

Understanding neutralization techniques and which ones in particular are used to rationalize impulse purchases, as discussed in “...Do I need it, do I, do I really need this?,” will also help marketers encourage impulse buying. If they know how customers rationalize purchases they can target items specifically to those techniques, in essence doing the rationalization for the customer instead of the customer having to take the time to figure out how to rationalize the purchase and possibly leaving a sale. For example, marketing a product as being versatile or that it is something the customer deserves. This also ties into results from the article, “Factors influencing impulse buying during an online purchase,” where they gave customers a reason to buy with the donation aspect to encourage impulse buying. That is an additional tool marketers could use to help customers rationalize purchases and increase the revenue from impulse buys.

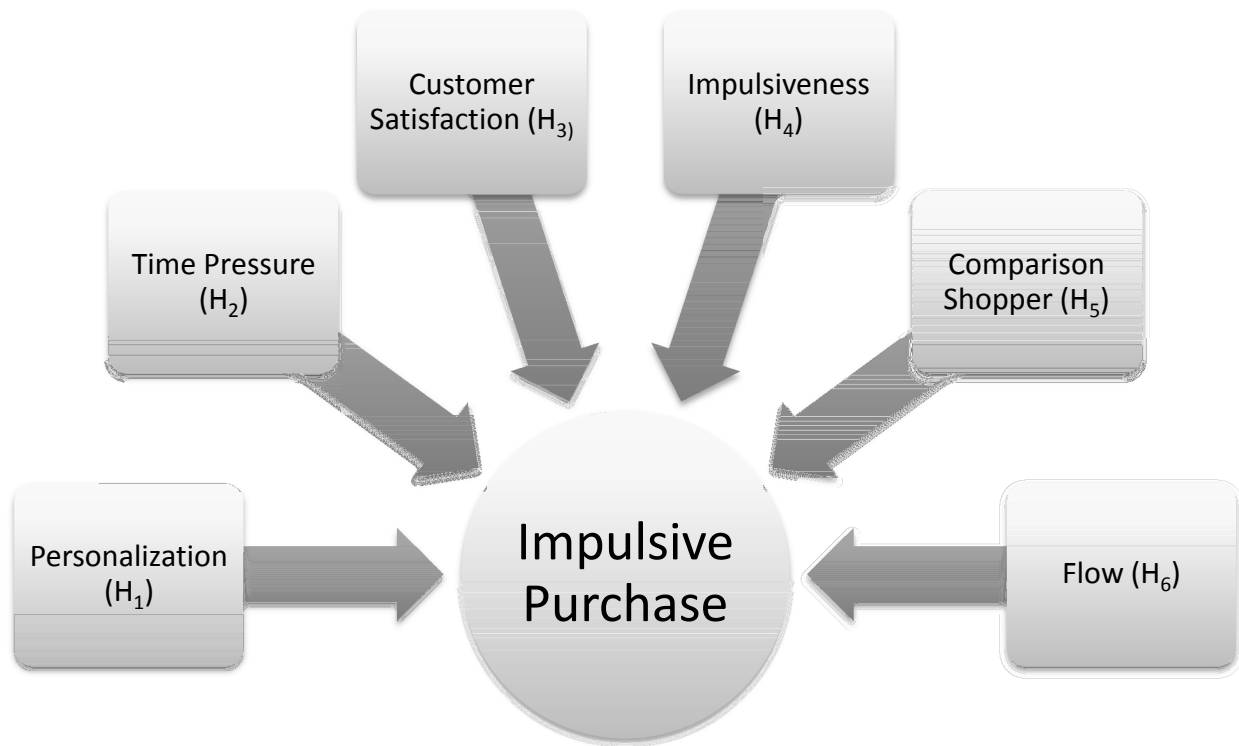
An interesting way TiVo and Amazon are targeting impulse buyers is through the television, allowing customers to select products with their remotes. Customers can

“purchase products related to TV shows they are watching, have just watched, or plan to watch, or items highlighted in commercials” (Medford, 2008). Once products are selected for purchase, the customer can complete the transaction either through the TV or online (Medford, 2008). This applies techniques brought up in several articles about making impulse purchases easy and giving them less time to think through a purchase. A consumer sees a product on TV, thinks that he/she likes it, thinks that he/she wants it, and in a matter of seconds the purchase is made. Products they never considered are brought in front of them and they have to make very little effort to buy them, which seems like impulse buying in its purest form.

Extended research from the article, “Role of Store Image in Consumer Impulse Buying Behavior,” would be interesting because the study revolved around actual retail stores. It would be interesting to see how the retail store experience influences customers to make impulse purchases on the store’s website. The article found that a good in-store experience increased the likelihood of the customer making an impulse buy. An interesting extension to that research would be to see how that in store experience affects the customer’s online behavior.

Overall, from the literature review several articles mention the increasing need to personalize websites and to have interaction with customers. Making customers feel unique will help bring them back to the website to make impulse purchases. Cross-selling is part of this and important for impulse buying because customers feel like the results are specific to their needs and wants. Additionally, there seems to be a strong consensus about website design, appeal, and ease of navigation as being strong factors in encouraging impulse purchases. Making a website easy to browse in order to find unexpected products

and incorporating a simple checkout process are key elements to increase impulse buys. Impulse buying relies on being able to make a quick purchase without having much time to decide against the purchase. Enabling faster transactions and adding time pressure will also engage people with impulsive tendencies more. For those that are impulsive in general, that trait spread to include impulse purchases as well. Comparison shopping may negatively impact impulsive purchases because they negate some of that initial urge to buy. They begin thinking about the purchase more and have a plan prior to shopping, which is the opposite of impulsive buying. Additionally, the state of flow inhibits the impulsive buying process because when people are in a state of flow they are extremely task oriented and are trying to accomplish something specific. During this state they are not as susceptible to distractions that may lead to an impulse purchase. The following figure summarizes the hypotheses drawn from the literature review.



**Figure 2: Predictors of an Impulsive Purchase**

## **Survey**

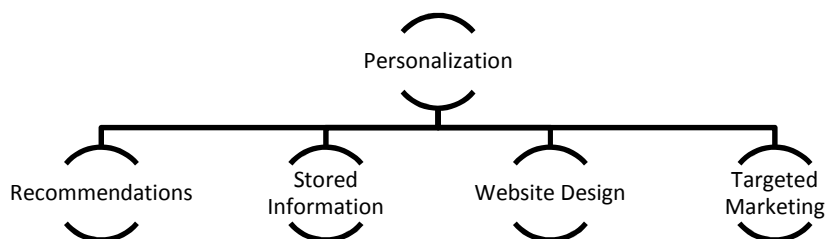
A survey was decided to be a good supplement to the research from the literature review and to acquire data on how customers respond to the various online resources companies have at their disposal to encourage impulse buying. Advances in technology have allowed companies direct access to customers and the researcher would like to study how effectively companies are using these resources to increase impulsive purchases online. Offline tactics for encouraging impulse buying are well known, but success in the online environment is still being determined. Companies are experimenting to define what works online and the best way to analyze correlations is with current data from a survey. The focus will be on non-traditional marketing outlets and the emergence of social networks. As well as additional questions about a recent impulse purchase made by the user. Supplemental questions to help measure correlations will revolve around general shopping habits and Internet habits.

## **Hypotheses**

Through the literature review and general experience with the technology and marketing aiming for the impulsive shopper, there are several key characteristics that the researcher believes will positively affect the likelihood of an impulse buy. One that is unique to the online environment is specific user personalization that a website can offer. Technology can allow for design modifications depending on the user's preferences, create a greeting when they sign in, store information from previous purchases, and make recommendations for products they might like. This is a way for the online retail outlet to build a relationship and trust with the customer. This also helps the company achieve a gain in revenue through impulse buys because it has access to a great amount of personal

information that allows them to target relevant products based on the customer's interests and past purchases.

In "The Influence of Website Characteristics on a Consumer's Urge to Buy Impulsively" the researchers found that customers were more likely to make an unplanned purchase where the website directed relevant task and mood related cues (Parboteeah, Valacich, & Wells, 2009, p. 74). In addition, the article "Online social capital: Understanding e-impulse buying in practice" discusses the necessity of website personalization to increase impulse purchases and how technology has eliminated the "one size fits all" model (de Kervenoael, Aykac, & Palmer, 2009, p. 326). A third article that supports the idea that personalization is an important factor in the impulse purchase decision process discusses the role of the store image in creating a positive shopping experience and the corresponding correlation with unplanned purchases (M., Sivakumaran, & Sharma, 2009, p. 194). In the "Role of Store Image in Consumer Impulse Buying Behavior" article, the researchers found that store image was a better driver for impulse purchases than price. Although this article discusses physical store's image, the underlying theme can easily be applied to retail websites and the ability the Internet gives companies to shape a user's perception of their image.



**Figure 3: Personalization Elements**

H<sub>1</sub>: Personalization will be a significant factor in the impulse purchase and will have a positive correlation.

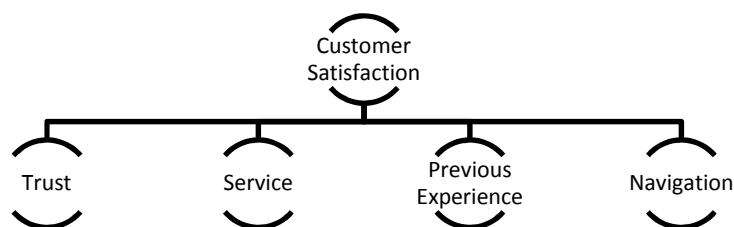
Another unique characteristic that Internet retailers have is their ability to reduce decision making time and to create a sense of urgency. Impulse buying is about reacting to an emotion, and websites are becoming increasingly creative in their application of technology to exploit that emotion. When in a store, a customer can hold on to an item while deciding whether or not to actually purchase it. However, websites make the checkout process as simple as a couple of clicks by storing information in order to get people to buy while they are still feeling their initial reaction to the item. In an attempt to get an even faster reaction, websites will display if an item is in short supply by displaying how many are left on the product page. Flash sale websites are even better at creating a time pressure by not really reserving items in a cart. A customer knows that just because the product is in his or her cart does not mean that it cannot go to somebody else. The customer really has to decide if they want something immediately or if they want to take the chance that somebody else could snatch it up while they are going back and forth.

Two articles referenced earlier in this document from *PC World* (2009) and *The New York Times* (2011) discuss the time pressure and technology innovations that encourage impulse purchases and decreases the time it takes to make a transaction. This is an area where online retailers have the edge over physical retail stores because once a customer has a product in their hands in a physical store they can think it over as much as they want, but the likelihood that they will make the purchase goes down the longer they think about it. However, online tactics add a sense of urgency and allow quick payments to decrease the amount of time customers think about a purchase.



H<sub>2</sub>: Time pressure will influence the purchase the decision and increase the likelihood of an impulse purchase.

Customer satisfaction is a third possible predictor for a customer making impulsive purchases. The theory behind this hypothesis is that people will be more likely to make an impulse purchase from a website they have used previously and that it is less likely they will make an unplanned purchase from a new retailer. Customers return to online retailers because they have been happy with the ordering process, they know what to expect from this retailer, they trust that their information is secure, and they know how to navigate the website. In the article “The impact of electronic service quality’s dimensions on customer satisfaction and buying impulse” the researchers found the higher the customer satisfaction rate, the higher the likelihood of that customer making an impulsive purchase (Bressolles, Durrieu, & Giraud, 2007). A similar study on retail habits found that key factors for gaining repeat customers include service, product selection, and display of information (Papatla & Liu, 2009), all of which are factors that can be classified under customer satisfaction.



**Figure 4: Customer Satisfaction Elements**

H<sub>3</sub>: Customer satisfaction will have a positive correlation with an impulsive buy.

The last positive predictor of impulse buying is determined by the impulsive nature of the consumer. If the consumer tends to be more impulsive, then he or she will be more likely make more impulse purchases. This hypothesis was proven by Sharma, Bharadhwaj, and Marshall (2010) when they found a significant correlation between impulsiveness and optimum stimulation levels to impulse buying and variety seeking. Research done by Chatzidakis, Smith, and Hibbert (2007) also supports this theory when they looked at rationalization techniques used by women who had gone into debt because of their shopping habits. The women in the study seem extremely impulsive since they would buy the item first, then rationalize it after the purchase was made.

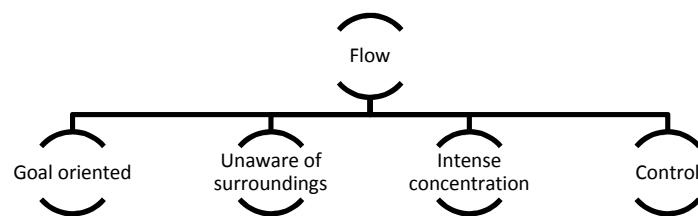
H<sub>4</sub>: A person who is naturally impulsive will have a higher probability of making impulse purchases.

A negative predictor of impulse buying should be a consumer who likes to shop around. The Internet offers numerous possibilities for comparison shopping to consumers within seconds. This gives the consumer a lot of power when shopping decisions are based on price. Conscientious consumers also tend to plan out their purchases before beginning shopping and stick to such a plan. In a study looking at how price promotions and gift promotions influenced impulse buyers, the researchers also found that neither strategy particularly gave prudent consumer the urge to buy (Shu-Ling, Yung-Cheng, & Chia-Hsien, 2009).

H<sub>5</sub>: The comparison shopper who searches multiple websites looking for the best deal will be a negative factor on the outcome of an impulse buy being made.

Another possible negative indicator for the likelihood of making an impulse purchase is when the user enters a state of flow online. Flow is described as a period of

intense concentration where the user loses track of a large amount of time and blocks out what is happening in the physical world around him or her (Rettie, 2001). Users in flow tend to have specific research goals they want to accomplish and do not get distracted easily once in a state of flow. For example, when users plan an upcoming trip they know what type of information they are looking for and do not veer away from the topic until they are satisfied or something breaks them out of their flow. This type of environment does not seem conducive for impulse shopping. Former research seems to indicate that impulse buying is more likely when there is a lack of focus. Multitasking seems like it would be the more likely to indicate an impulse purchase because that would catch people on a pure reaction since their attention is spread out over several tasks. In a survey relating to the mediating the effect of browsing, the authors found that utilitarian browsing discouraged impulse buying (Eun Joo & Eun Young, 2009, p. 376). Utilitarian browsing is part of the flow experience because the user wants specific information and is not just browsing for leisure.



**Figure 5: Flow Elements**

H<sub>6</sub>: Flow will negatively influence the probability of a consumer making an impulse purchase.

## Method

The decision to conduct a survey was based on the desire to examine multiple factors that contribute to impulse buys, especially to analyze specific information about a recent unplanned purchase. Previous research focuses on very specific aspects of impulsive buys, but there are not too many studies that take into account a wide range of possible factors. Also, previous studies did not examine what influenced a specific purchase participants made on their own from an online retailer. It is believed by the researcher that having the participants reflect on a recent unplanned transaction gives greater insight into the motivation behind the purchase.

The survey was distributed via the Internet using Qualtrics during the fall 2011 semester at Louisiana State University. The survey link was distributed to students in ISDS classes at the E. J. Ourso College of Business. Students were given a week to respond and could receive extra credit for answering the approximately seventy-five question survey. Questions on the survey were organized into four main groupings covering the role of social media in purchase decisions, general shopping habits, Internet habits, and a recent unplanned purchase.

General questions based on shopping habits and purchase decisions were developed with the use of the book *Marketing Scales Handbook: A Compilation of Multi-Item Measures*. This book was helpful in providing sample questions and reliability measures for groups of questions regarding consumers' actions. The scale "Comparison Shopping (Initial)" developed by Urbany, Dickson, and Kalapurakal (1996) focuses on comparison shopping and provides three questions measured on a five point Likert-type scale that revolve around comparison shopping for grocery items that have a reliability alpha of .82 (Bruner

II, James, & Hensel, 2004). These questions were adapted to relate to shopping online and included in the survey to measure how comparison shopping influences impulse purchases.

Two scales on impulse buying, one by Rook and Fisher (1995) and one by Donthu and Gilliland (1996) proved useful to this particular survey. Both studies measure questions about consumer impulsiveness on a five point Likert-type scale. Rook and Fisher describe their scale as a way determine “the extent to which a consumer is likely to make unplanned, immediate, and unreflective purchases” (Bruner II, James, & Hensel, 2004, p. 292). The Rook and Fisher scale provided nine questions and the Donthu and Gilliland scale provided ten, where about half from each were used in the current survey. Both sets of questions are similar and have the same reliability measure of alpha equaling .82. The majority of the questions are worded with variations on the theme of buying items spontaneously, with a few contrasting questions about carefully planning purchases.

Questions from the survey regarding discounted items and special promotions were based on the scales “Involvement (Sales Promotion Deals)” by Lichtenstein, Netemeyer, and Burton (1995), and “Involvement (Sales)” by Lichtenstein, Ridgway, and Netemeyer (1993). Lichtenstein, Netemeyer, and Burton (1995) measure “a consumer’s enjoyment of sales promotion deals and tendency to buy products associated with such offers” (Bruner II, James, & Hensel, 2004, p. 344). Questions based on this scale focus on promotional offers in general, and not only on item discounts. These include inquiries about a consumer’s likelihood to buy products with free gifts, free shipping, and other special promotions. The reliability alpha reported for “Involvement (Sales Promotion Deals)” is .90. The scale developed by Lichtenstein, Ridgway, and Netemeyer is similar to the previous scale, but it focuses more on the consumer’s likelihood of buying products that are

on sale. Questions based on this scale hope to measure how price and the perceived discount of an item influence an impulsive purchase. An alpha of .86 is cited for the reliability of “Involvement (Sales)” (Bruner II, James, & Hensel, 2004). Questions from both scales were included in the survey to try to help gauge factors that influence the consumer’s purchase decision process during online shopping.

Additional survey questions that were not specifically previously used in a marketing scale related to consumers’ online experiences. One set of questions aim to look at how focused a user was during online shopping, or if the user was multitasking multiple applications and other distractions. Additional sets of questions relate to how trustworthy websites appear, how satisfied the consumer is with the shopping experience, how much personalization they provide the customer. The last set of survey questions ask specifics about the most recent impulsive purchase the user has made in order to get more focused responses that all relate to the same shopping experience.

Once the raw data was collected, 436 responses from undergraduate business students were collected. However, after removing instances of incomplete results, 406 complete responses were left for analysis. IBM SPSS Statistics 20 is the statistical software used to explore the survey data. A factor analysis using orthogonal rotation was the first step conducted in the analysis process in order to group like questions to create new variables and discard questions that were not useful. Variables with a factor loading less than .3 were dropped. As well as variables that had a loading of greater than .3 on the wrong factor, or variables that were loaded on multiple factors. After several iterations of the factor analysis, the final result grouped variables around ten factors (results used for further analysis is depicted in Appendix C). The variables for each factor were then

averaged and a new variable was created with that value. Reliability tests were then run for each of the new variables and the alpha values were recorded.

After reliability test, dummy variables were created for categorical questions in order to test the significance of each type of response. The first set of dummy variables created was for the question related to the deciding factor for making unplanned purchases online. Five variables were created starting with price, free shipping, free gift/bonus offer, brand new item, and appeal of the item. This leaves the recommendations selection as the omitted category for this question. The next set of dummy variables came from the question asking about the category in which the item from his or her most recent unplanned purchase could be categorized. Clothing, shoes, or accessories make up the first variable, followed by the second variable of computers or electronics. The third variable counts DVS, music, or books, the fourth home or garden, and the fifth sports or outdoors. The other selection was left as the omitted category.

The third set of dummy variables is formed from the question asking the student what he or she was doing before the purchase. The responses being that the user was already doing online shopping, the user was browsing the Internet for nothing specific, the user came to the website from an advertisement, or the user was triggered by something offline to visit the website (with the last being the comparison variable). The last set of dummy variables created labels the mood of the customer during the shopping experience, starting with being in a good mood, needing something to cheer him or her up, and feeling bored. The other selection is the omitted category.

Next, variables were recoded from ones and twos to zeros and ones for questions that only gave two response options. This was done to help standardize the data and make

the analysis results clearer. Gender was given zeros for females and ones for males. Yes or no questions were coded as ones for the yeses and zeros for the nos.

Following the transformation of variables, cross tabulations were created to help visualize how two sets of categorical data are associated with each other. The cross tabulations created for analysis include pre-purchase action and category. The pre-purchase action asks the user to indicate what he or she was doing before completing the impulse purchase. The options given to the user are that he or she was already shopping for something specific, just browsing the Internet and not looking for anything in particular, came to the website from an advertisement, or that an offline stimulant triggered a visit to the website. The category question asks the user to label the impulse purchase into one of the given categories. The supplied categories are: clothing, shoes, or accessories; computers or electronics; music, books, or DVDs; home or garden; sports or outdoors; or other for any miscellaneous items.

The second cross tabulation compares the deciding factor variable with the category variable. The deciding factor variable has the user pick one of six options that usually help make the decision to purchase items impulsively. The options provided are price, free shipping, free gift, brand new item, item appeal, or recommendation. The category variable is the same as mentioned above. The third cross tabulation looks at the relationship between the pre-purchase activity and the deciding factor of the purchase. Both are the same as described for previous cross tabulations. Then three cross tabulations were created using the gender variable relationship with the category of the item, deciding factor of the purchase, and the activity of the user prior to the purchase.



Next, a correlation matrix was performed on the variables to determine the significance between each one and the dependent variable measuring the amount of unplanned purchases the user makes on the Internet. This step helps identify variables that should be included in the regression analysis and which ones can be left out because of a lack of significance. The full correlation matrix is shown in Appendix C.

Following the correlations, several regression analyses were performed using the frequency of unplanned Internet purchases variable as the dependent variable. This variable relates to the survey question asking how often the user makes unplanned purchases online. The responses given were never, less than once a month, once a month, two to three times per month, once a week, two to three times per week, and daily. The independent variables were based on the computed variables from the factor analysis with reliable alpha values and the variables from the correlation matrix with significant values. The first regression breaks down into three models. The first model adds gender and the dummy variables for item category, deciding factor, and pre-purchase activity. The second model adds the calculated variables of impulsiveness, customer satisfaction, Internet session flow, multitasking, time pressure, comparison shopping, and perception as a trendsetter. All of the computed variables with appropriate reliability levels were included to verify the results of the correlation matrix in regards to the non-significant values continuing to be non-significant. The third model adds the significant variables that relate to the most recent impulse purchase to the variables from the previous two models in order to observe what changes may occur.

The second regression performed removes unnecessary variables from the previous regression. In this regression only the dummy variables for the consumer's pre-purchase

activity are included since the other categorical variables were not significant.

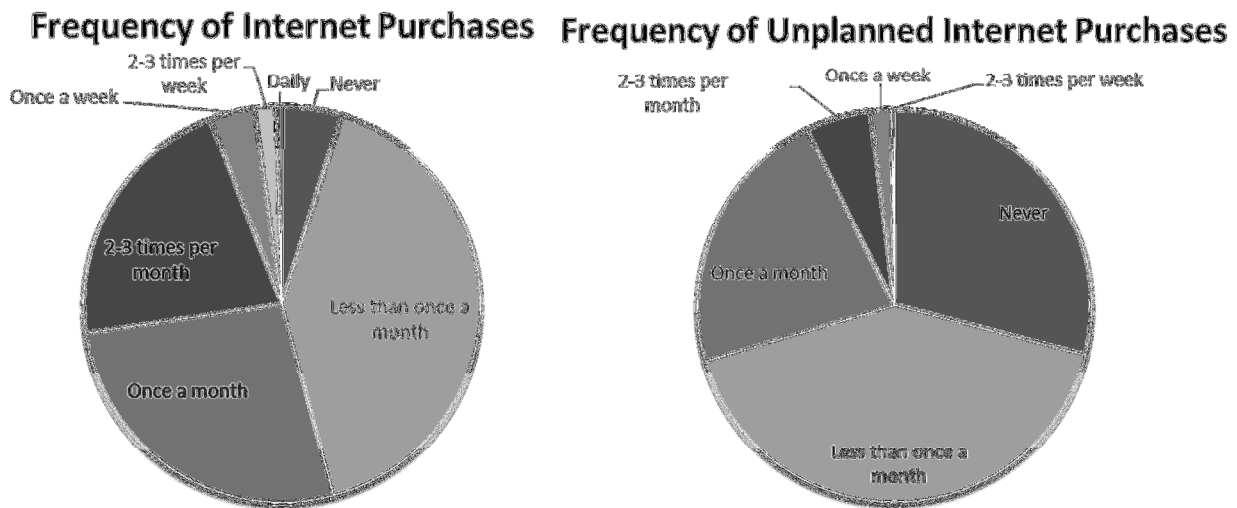
Additionally, the variables for impulsiveness, flow of the Internet session, and the frequency of purchasing from the same website continue to be part of the regression.

The third regression built is very similar to the second, except instead of including the variable for frequency of purchasing from the same retailer in regards to a recent impulse purchase, the computed variable for customer satisfaction is included. Although the computed variable for customer satisfaction may be weaker for the amount of variance it can contribute to explaining, its value is based on multiple customer satisfaction attributes and has a reliability score, whereas the variable for frequency of purchases from the supplied website is a variable based on a single response measuring the regularity of items purchased. While although it is an indicator of customer satisfaction, it does not contribute the various aspects that truly identifies how satisfied a consumer is with the online retailer.

## **Results**

Undergraduate business students completed 406 surveys to use for analysis. From those 406 students, 244 are male and 162 are female. In response to a question asking how frequently online purchases are made forty-one percent replied less than once per month, twenty-seven percent responded once a month, and twenty-one percent stated two to three times per month. Small numbers responded to the additional options of never, once a week, multiple times per week and daily. Subsequently, the student was asked how often he or she makes unplanned purchases on the Internet. Twenty-nine percent of students responded never, forty-one percent stated less than once a month, and twenty-two percent replied once a month. A small percentage stated that unplanned purchases occurred

multiple times per month, once a week, and a couple of times per week. No participants responded that they make purchases daily.



**Figure 6: Frequency of Online Purchases**

The results of the reliability tests showed a wide range of alpha values. The variable representing impulsive purchases has an alpha of .77 and is strong enough to be included in the regression model since the alpha is greater than .7. The customer satisfaction variable has an alpha of .69. Although this variable has an alpha less than .7 it is included in the model because it is close enough to .7 to be considered reliable. The variable measuring the flow of a user's Internet session and how much focus a user has during that session has an alpha of .70 and is included in the model. Time pressure during the shopping experience has an alpha of .87 and is reliable enough to include in the model. Variables making up the factor for comparison shopping have an alpha of .70. Items determining the effect of a discount on impulse buying have an alpha of .61, which is too low of a reliability score to use in the model. Variables measuring multitasking have an alpha of .81 and the computed variable is included in the model. Questions regarding the

user's perception of being a trendsetter have an alpha of .83, which is a high enough reliability score to be included in the model. Inquiries about the checkout process have an alpha of .60 and questions measuring the usefulness of site recommendations have an alpha of .54, neither of which are high enough reliability scores.

Six cross tabulations are shown below beginning with pre-purchase activity and category; deciding factor and category; pre-purchase activity and deciding factor; gender and category; gender and deciding factor; and finally gender and pre-purchase activity.

**Table 1: Pre-Purchase Activity and Category Cross Tabulation**

<b>Pre-Purchase Activity * Category Cross Tabulation</b>							
	Clothing, shoes, and accessories	Computers and electronics	DVDs, books, and music	Home and garden	Sports and outdoors	Other	Total
Online Shopping	115	32	24	4	10	8	193
Browsing the Internet	44	6	9	0	6	3	68
Click-through from an ad	31	3	2	1	0	2	39
Offline trigger	55	14	15	0	10	12	106
Total	245	55	50	5	26	25	406

The pre-purchase activity and item category cross tabulation shows that before making an impulse purchase, many of the respondents were already online shopping and ended up buying an item classified as clothing, shoes, and accessories. Also important to observe from these results is the high amount of people that identified an offline trigger as being the reason for visiting a website and making a recent purchase.

**Table 2: Deciding Factor and Category Cross Tabulation**

<b>Deciding Factor * Category Cross Tabulation</b>							
	Clothing, shoes, and accessories	Computers and electronics	DVDs, books, and music	Home and garden	Sports and outdoors	Other	Total
Price	166	34	34	4	15	20	273
Free shipping	16	3	3	1	1	1	25
Free gift	3	2	0	0	1	0	6
Brand new item	3	1	0	0	0	0	4
Appeal of the Item	54	12	11	0	8	2	87
Recommendations	3	3	2	0	1	2	11
Total	245	55	50	5	26	25	406

When skimming the results of the deciding factor and item category cross tabulation, the item's price was the deciding factor in almost seventy percent of the responses when asked specifically about a recent. The next closest deciding factor is the appeal of the item.

**Table 3: Pre-Purchase Activity and Deciding Factor Cross Tabulation**

<b>Pre-Purchase Activity * Deciding Factor Cross Tabulation</b>							
	Price	Free Shipping	Free Gift	New Item	Appeal of the Item	Recommendation	Total
Online Shopping	126	13	3	0	43	8	193
Browsing the Internet	43	4	2	2	16	1	68
Click-through from an ad	26	1	0	1	9	2	39
Offline trigger	78	7	1	1	19	0	106
Total	273	25	6	4	87	11	406

The cross tabulation between pre-purchase activity and deciding factor show similar results to the previous two, where price of the item and online shopping as the previous activity are the most common.

**Table 4: Gender and Category Cross Tabulation**

<b>Gender * Category Cross Tabulation</b>							
	Clothing, shoes, and accessories	Computers and electronics	DVDs, books, and music	Home and garden	Sports and outdoors	Other	Total
Male	115	43	43	1	23	19	244
Female	130	12	7	4	3	6	162
Total	245	55	50	5	26	25	406

The gender and category cross tabulations shows the expected that clothing, shoes and accessories is the most popular item category from which to make and impulse purchase and that females have a higher amount in that category. However, when looking at the total number of females who participated in the survey, eighty percent of them made a recent impulse purchase in the clothing, shoes, and accessories category.

**Table 5: Gender and Deciding Factor Cross Tabulation**

<b>Gender * Deciding Factor Cross Tabulation</b>							
	Price	Free Shipping	Free Gift	New Item	Appeal of the Item	Recommendation	Total
Male	167	10	3	1	56	7	244
Female	106	15	3	3	31	4	162
Total	273	25	6	4	87	11	406

Observations from gender and the deciding factor variable once again show price is important to both males and females. It also appears that a higher percentage of females responded to free shipping offers.

**Table 6: Gender and Pre-Purchase Activity Cross Tabulation**

<b>Gender * Pre-Purchase Activity Cross Tabulation</b>					
	Online Shopping	Internet Browsing	Ad Click-through	Offline Trigger	Total
Male	123	33	21	67	244
Female	70	35	18	39	162
Total	193	68	39	106	406

The interpretation of the gender and pre-purchase activity cross tabulation is that males have a higher percentage of buying an impulse purchase when already online shopping and looking for something specific. However, females have a higher percentage of buying impulsively when they were browsing the Internet and not looking for anything in particular.

The correlation matrix of the attributes relating to impulsive purchases and the dependent variable of the number of unplanned Internet purchases the user estimates he or she makes show several interesting relationships. The dependent variable is measured on a frequency scale beginning with the option never, less than once a month, once a month, two to three times a month, once a week, two to three times a week, and daily. The complete table can be found in Appendix C and marks correlations that are significant at the .01 level with two asterisks (\*\*) and those that are significant at the .05 level with one asterisk (\*). Variables that are significant with the frequency of unplanned Internet purchases are gender, previously purchase from the website, cost of the item, knowing others who buy from the website, frequency of purchases from the website, storing credit card information, impulsiveness, and customer satisfaction. Internet session flow, time pressure, multitasking, consumer's perception as a trend setter, appeal of the item as the

deciding factor, the clothing, shoes and accessories item category, the sports and outdoors item category, pre-purchase activity of an ad click-through, and pre-purchase activity of an offline trigger are also significant.

The results from each regression are shown below. The asterisk (\*) signifies that the variable is significant at the .05 level. The first regression includes all variables indicated that may be significant from the correlation matrix distributed through three models.

The first regression is comprised of three models, where the first model controls for the categorical variables, the second model inputs the computed variables, and the last model includes non-scalable variables. In the final model the significant variables are impulsiveness, Internet session flow, ad click-through pre-purchase activity, offline trigger pre-purchase activity, and frequency of buying from the same website.

The second regression becomes much simpler and non-significant variables from the first regression are removed. The variance explained for the dependent variable drops slightly, but the significant variables remain significant.

The third regression replaces the variable for the frequency of purchases from the same website with the customer satisfaction computed variable. The customer satisfaction variable measures multiple factors relating to customer satisfaction, whereas the frequency variable is based on the responses from one question. This model shows customer satisfaction as being significant, along with the variables from previous regressions.



**Table 7: First Regression**

<b>Regression 1</b>						
	<b>Model 1</b>		<b>Model 2</b>		<b>Model 3</b>	
	<b>Unstandardized Coefficients</b>		<b>Unstandardized Coefficients</b>		<b>Unstandardized Coefficients</b>	
<b>Variable</b>	<b>B</b>	<b>Std. Error</b>	<b>B</b>	<b>Std. Error</b>	<b>B</b>	<b>Std. Error</b>
<b>Unplanned Internet Purchases</b>	1.87*	0.35	-0.96*	0.53	-0.83	0.51
<b>Gender</b>	-0.18	0.10	-0.09	0.10	-0.08	0.09
<b>Deciding Factor: Price</b>	0.28	0.29	0.3	0.27	0.26	0.26
<b>Deciding Factor: Free Shipping</b>	0.28	0.34	0.25	0.32	0.24	0.31
<b>Deciding Factor: Free Gift</b>	-0.28	0.48	-0.13	0.44	-0.06	0.42
<b>Deciding Factor: New Item</b>	-0.28	0.55	0.03	0.52	-0.06	0.49
<b>Deciding Factor: Item Appeal</b>	0.51	0.30	0.35	0.29	0.32	0.28
<b>Category: Clothing, Shoes, and Accessories</b>	0.23	0.20	0.16	0.19	-0.03	0.18
<b>Category: Computers and Electronics</b>	0.19	0.23	0.06	0.21	-0.09	0.20
<b>Category: Books, Music, and DVDs</b>	0.23	0.23	0.24	0.21	-0.02	0.21
<b>Category: Home and Garden</b>	-0.03	0.46	-0.02	0.44	-0.25	0.42
<b>Category: Sports and Outdoors</b>	-0.13	0.26	0.02	0.24	-0.12	0.23
<b>Pre-Purchase: Online Shopping</b>	-0.18	0.13	-0.12	0.13	-0.13	0.12
<b>Pre-Purchase: Ad Clickthru</b>	0.30	0.19	0.37*	0.18	0.36*	0.17
<b>Pre-Purchase: Offline Trigger</b>	-0.36*	0.15	-0.24	0.14	-0.28*	0.13
<b>Impulsiveness</b>			0.38*	0.08	0.35*	0.07
<b>Customer Satisfaction</b>			0.20*	0.10	0.03	0.09
<b>Internet Session Flow</b>			0.19*	0.07	0.16*	0.07
<b>Time Pressure</b>			0.03	0.05	0.01	0.05
<b>Comparison Shopping</b>			0.01	0.06	0.06	0.06
<b>Multitasking</b>			0.03	0.05	0.03	0.04
<b>Trendsetter</b>			-0.01	0.05	-0.04	0.05
<b>Previous Purchase with Online Retailer</b>					0.12	0.11
<b>Frequency of Purchases from the same website</b>					0.34*	0.06
<b>Knowledge of others who use the website</b>					0.04	0.11
<b>Stored Credit Card Information</b>					-0.15	0.10
<b>Cost of Recent Impulse Purchase</b>					0.07	0.04
* significant at the .05 level						

**Table 8: Second Regression**

<b>Regression 2</b>				
	Model 1		Model 2	
	Unstandardized Coefficients		Unstandardized Coefficients	
<b>Variable</b>	<b>B</b>	<b>Std. Error</b>	<b>B</b>	<b>Std. Error</b>
<b>Unplanned Internet Purchases</b>	2.26*	0.11	-0.35	0.27
<b>Pre-Purchase: Online Shopping</b>	-0.19	0.13	-0.11	0.11
<b>Pre-Purchase: Ad Clickthru</b>	0.33	0.19	0.36*	0.16
<b>Pre-Purchase: Offline Trigger</b>	-0.40*	0.15	-0.28*	0.13
<b>Impulsiveness</b>			0.36*	0.06
<b>Internet Session Flow</b>			0.19*	0.06
<b>Frequency of Purchases from the same website</b>			0.36*	0.05
* significant at the .05 level				

**Table 9: Third Regression**

<b>Regression 3</b>				
	Model 1		Model 2	
	Unstandardized Coefficients		Unstandardized Coefficients	
<b>Variable</b>	<b>B</b>	<b>Std. Error</b>	<b>B</b>	<b>Std. Error</b>
<b>Unplanned Internet Purchases</b>	2.26*	0.11	-0.64	0.38
<b>Pre-Purchase: Online Shopping</b>	-0.19	0.13	-0.15	0.12
<b>Pre-Purchase: Ad Clickthru</b>	0.33	0.19	0.39*	0.17
<b>Pre-Purchase: Offline Trigger</b>	-0.40*	0.15	-0.27*	0.13
<b>Impulsiveness</b>			0.42*	0.06
<b>Customer Satisfaction</b>			0.23*	0.09
<b>Internet Session Flow</b>			0.20*	0.07
* significant at the .05 level				

## Discussion

The cross tabulations show an interesting distributions of responses for the different variations that were calculated. Although the pre-purchase activity and category cross tabulation is dominated by the clothing, shoes, or accessories category and the pre-

purchase activity of already doing online shopping as one would expect, an interesting find shows that about a fourth of users were stimulated to make an impulsive purchase by an offline trigger. This demonstrates the crossover between offline and online, and the importance of a cohesive strategy between traditional media and Internet campaigns.

In the cross tabulation comparing the purchase deciding factor and the item's category, the interaction between price and clothing, shoes and accessories is the strongest. Price is the leader in all the categories for determining the deciding factor. However, the general appeal of the item also appears to be an important aspect and is distributed at approximately the same ratio throughout the different categories of items. Both price and appeal of the item are consistent throughout all of the categories, where price makes up approximately sixty percent of the attributing factor for each category and appeal of the item accounts for about twenty percent. One additional observation that the pre-purchase activity and deciding factor cross tabulation shows that is not apparent in the previous two is that item recommendations only apply to customers who are already online shopping. This makes sense once the cross tabulation helps visualize it because when someone is shopping for something specific, the online retailer has the ability to help the user discover related items that can lead to an unplanned purchase.

The cross tabulations including gender show some expected relationships. For example, with the gender and category cross tabulation all but about thirty females said their last impulse purchase could be classified as clothing, shoes, or accessories. However, about half the male responses said it could fall in that same category, and the other half was distributed between computer and electronics; books, music, and DVDs; and sports and outdoors. When comparing gender to the deciding factor of the purchase, price remains

the most popular reason. Appeal of the item decides about twenty percent of the purchases for each gender. Although response numbers are small for the other factors, it does appear that free shipping or a free gift is more likely to influence a female shopper. Looking at the results from gender and pre-purchase activity, half of the male respondents said they were already online shopping when they made a recent impulse purchase. That number falls to about forty percent for female shoppers. Females have a higher percentage of buying when they were browsing the Internet and not searching for anything in particular prior to making an impulse purchase. Making a purchase from an ad and being stimulated by an offline trigger have about the same percentage of occurrence between men and women.

When looking at the correlation matrix, similar themes that are important in offline shopping appear to have a significant correlation with impulse purchases online. The customer satisfaction variable created based on the factor analysis has a positive correlation with unplanned Internet purchases, as do several yes/no type questions from the section asking about the most recent unplanned purchase that also relates to customer satisfaction. These include whether or not the consumer has made previous purchases from the website, whether or not the consumer knows others who make purchases from the same website, and how frequently the consumer makes purchases from the website. Additionally, the consumer storing credit card information on the website appears to have a positive correlation with impulse purchases, showing a level of trust in the website that important information will be secure. All imply that the consumer is happy with his or her experiences with using the website and the service received from the retailer since he or she continues to buy products through the website.

Impulsiveness of the consumer also shows a positive correlation with impulsive purchases online. This is a personal tendency of the consumer and it is logical to assume and previous research shows that this trait does not change just because the environment is different. The significant correlation reaffirms the theory regarding impulsiveness and impulse shopping. Another consumer characteristic that the correlation matrix shows as having a significant relationship with online impulse buying is the consumer's perception of being a trendsetter. The scale asks the consumer to measure his or her level or trendiness and if he or she usually introduces new products to friends. The gender of the consumer is also significant with impulse buying online indicating that there are differences between males and females regarding the likelihood of making an unplanned purchase.

A positive correlation with impulse buying online is the perception of a time limit when making a purchase decision. Time pressure is created by the website giving the user a certain amount of time to complete the checkout process or revealing the limited quantity of an item. This adds a sense of urgency to the process and the consumer has to make a quick decision about whether or not to buy the product. The positive correlation indicates consumers whose instinct is to make the purchase to avoid possible disappointments of the item running out will have a higher amount of impulse purchases. Inclusion in the regression analysis will determine further if time pressure actually explains the occurrence of impulse purchases.

The last two scale variable that show positive correlations with online impulse buying are the flow of the Internet session and multitasking. The questions relating to flow begin with being more focused to being less focused with the websites visited during

Internet sessions. If there is a lack of focus it is implied that the user is not in a state of flow since people in a state of flow are goal oriented and trying to accomplish a specific task. The positive correlation shows there may be a relationship between not having the flow experience and making impulse purchases. Additionally, the multitasking variable is similar and asks the user to describe how many other stimulants were diverting his or her attention while making the most recent impulse purchase. A positive correlation between this and impulse buying implies that higher amounts of multitasking can explain part of the variance for the amount of unplanned Internet purchases.

The correlation matrix also includes the dummy variables for the variables whose response fits a category rather than a scale. Out of these categorical variables one deciding factor variable, two category variables, and two pre-purchase activity variables appear to be significant. The appeal of the item is positively correlated with impulse purchases online, as is the item category of clothing, shoes and accessories. The sports and outdoors item category has a negative correlation implying that those types of items may be less likely to be impulse purchases. Correlations between the pre-purchase activity of arriving at the website from an ad and arriving at the website because of an offline trigger are also apparent in the correlation table.

The first regression confirms variables not significant in the correlation table as still not being significant. However, many variables that the correlation matrix shows as having a relationship with the dependent variable do not meet the requirements to be significant in the regression. After controlling for the categorical variables, the only one significant in the second model is the pre-purchase activity of clicking-through from an advertisement. The second model also shows that the significant computed variables are impulsiveness,

customer service, and the flow of the Internet session. Time pressure, multitasking, and perception as a trendsetter are not significant in the regression: despite being significant in the correlation matrix. Comparison shopping is still not shown as significant. Model two explains approximately twenty-four percent of the variance for the unplanned purchase dependent variable. Once the variables are added into the third model the variance raises to about thirty-three percent. However, only one of the additional variables is significant, how frequently the consumer makes purchases from the retailer where the most recent unplanned transaction took place. Additionally in this model the pre-purchase activity becomes significant and the computed variable of customer service becomes not significant. It appears that there is some overlap between the computed variable for customer satisfaction and the variable relating to the frequency of purchases from the given website because in essence multiple purchases from one online retailer signifies a level of customer satisfaction. The basic information to pull from this regression overall is the importance of two main factors that are not unique to the online environment, impulsiveness of the consumer and customer satisfaction. The regression also shows that flow is significant for impulse purchases and that the less task-driven a user is during an online session, the more likely he or she will be open to buying an unplanned product.

The second regression pulls the significant variables from the third model in the second regression to create a simpler model. All variables remain significant and the results show that about thirty-one percent of the online impulse buying dependent variable is explained by the second model, a drop of two points from the third model in the first regression. The variance in the third regression drops even more, to about twenty-three percent, when the customer satisfaction computed variable replaces the frequency of

purchases from the same retailer variable. In the second model of this regression the pre-purchase activities that are significant is the click-through from an advertisement and the offline trigger. All of the computed variables (impulsiveness, customer satisfaction, and Internet flow) are significant. A small percentage of the variance is explained by the pre-purchase activity, but a majority of it is comprised from the computed variables.

When evaluating the hypotheses in relation to the regression analysis performed, the researcher found the following:

H<sub>1</sub>: Personalization will be a significant factor in the impulse purchase and will have a positive correlation. The hypothesis relating to the personalization of websites and information for customers is undetermined. The recommendations factor that emerged from the factor analysis, which is a segment of personalization, did not have a strong enough reliability score to be included in the regression. Additional questions attempting to measure the importance of website personalization did not form a factor and were dropped from further analysis. Although Parboteeah, Valacich, and Wells (2009) found personalization to influence impulse purchases, this study was not able to corroborate that research.

H<sub>2</sub>: Time pressure will influence the purchase the decision and increase the likelihood of an impulse purchase. For this regression, time pressure applied by websites was not significant in explaining unplanned purchases. Two articles referenced earlier in this document from PC World (2009) and The New York Times (2011) discuss the time pressure and technology innovations that encourage impulse purchases, such as making consumers aware of limited quantities, limiting the amount of time a consumer has to complete the check-out process, and the decrease in time it takes to make a transaction



overall. However, those articles are limited in their lack of supporting research and although it seems to make sense that creating time pressure will result in more impulse purchases, the two coinciding probably has a lot to do with the general impulsiveness of the consumer and not necessarily a major reason for an impulse purchase on its own.

H<sub>3</sub>: Customer satisfaction will have a positive correlation with an impulsive buy. This hypothesis is proven true through the regression analysis and is a more traditional factor that carries over from offline retailers to online retailers. Customer satisfaction measures the consumer's level of trust in the retailer, satisfaction the level of service received, previous experiences with the retailer, ease of navigation, and satisfaction of information provided. This finding coincides with the results from Bressolles, Durrieu, and Giraud (2007) and Papatla and Liu (2009), where both studies found aspects relating to customer satisfaction significant factors of impulsive purchases.

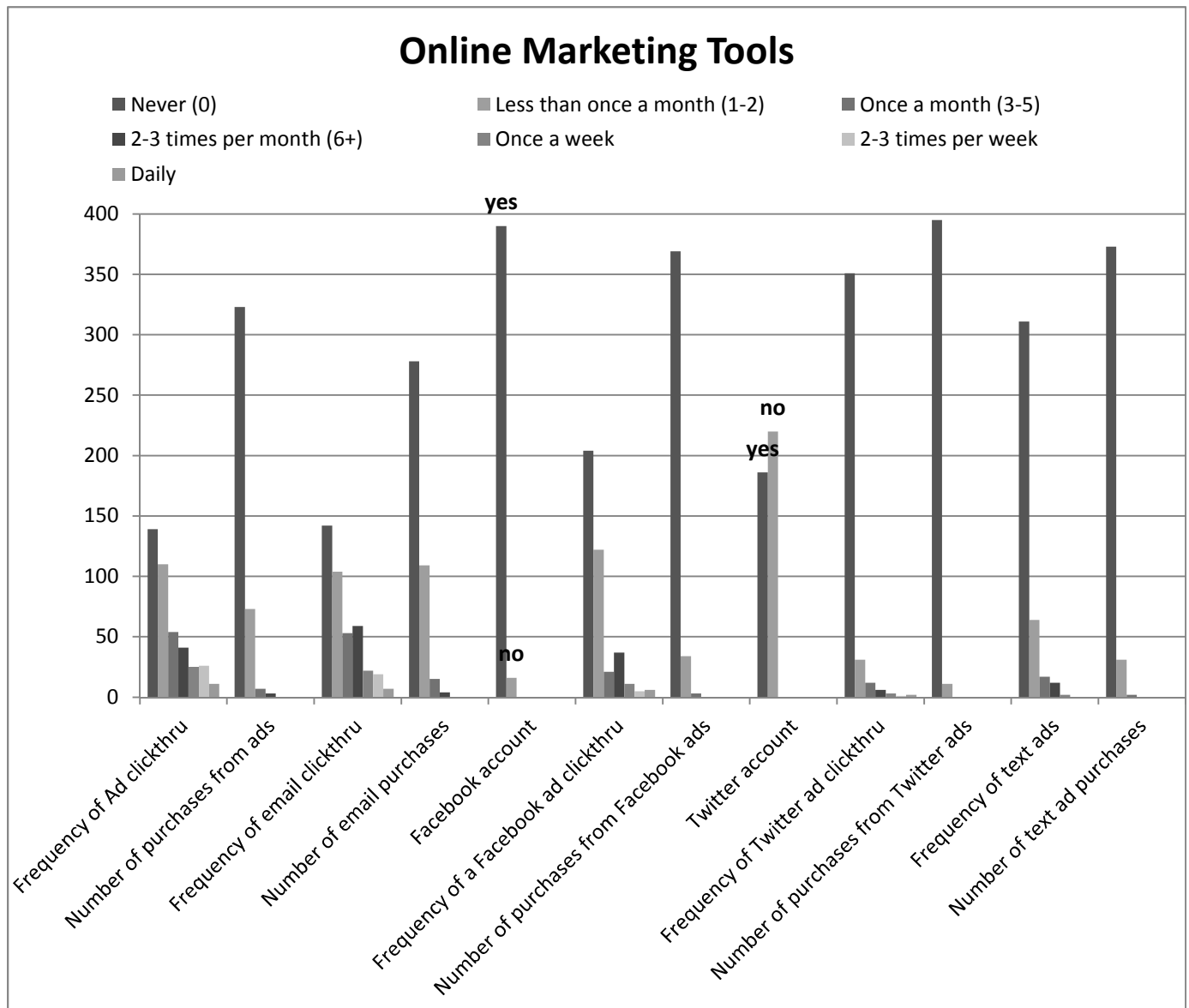
H<sub>4</sub>: A person who is naturally impulsive will have a higher probability of making impulse purchases. This is another hypothesis that is proven true and was the most consistent variable throughout the various regressions performed. Impulsiveness is a personal trait that applies to various aspects of situations the user finds him or herself in, including online shopping, and not something that is filtered based on different scenarios. Sharma, Bharadhwaj, and Marshall (2010) found similar results when examining impulse shopping. Like customer satisfaction, impulsiveness is not unique to the online impulse purchase and is an important factor offline as well.

H<sub>5</sub>: The comparison shopper who searches multiple websites looking for the best deal will be a negative factor on the outcome of an impulse buy being made. The computed variable for comparison shopping is not a significant indicator of whether or not an

impulse purchase occurred according to the regression analysis. This may be because the Internet gives consumer instant access to compare prices. Online, one website may trigger the impulse buying process and, after a quick search, another will actually complete the transaction. Whereas, offline the comparison shopper would have to physically change locations to compare prices, which would negatively effect impulse purchases.

H<sub>6</sub>: Flow will negatively influence the probability of a consumer making an impulse purchase. From the regression analysis this hypothesis appears to be true. Consumers describing their Internet sessions as less focused and not particularly goal-oriented were significant indicators of impulse purchases. Research conducted by Rettie (2001) describes flow on the Internet as task focused, users are trying to accomplish something specific and do not get distracted easily by neither the online or offline environment. This type of environment is not conducive to the stimulants provided by retailers to encourage impulse buying, a finding supported by the regression analysis.

Additionally, the survey examined the use of various online marketing tools, from the standard banner ads to social media marketing. Articles reviewed discuss the level of uncertainty in the success of online marketing, especially with using social media. This type of technology is still in experimental phase and marketers are trying to determine the best way to utilize these tools. Facebook and Twitter are platforms that allow access to unimaginable numbers of potential customers for business at extremely low costs compared to traditional marketing campaigns. However, the chart below reinforces the articles' consensus that the best way to convert those users into customers is still unknown.



**Figure 7: Online Marketing Tools**

### Limitations

This survey was conducted on undergraduate business students. While probably a good sample of the college population, it is difficult to make generalization about other age

groups since they were not included in this study. Limitations also arise in the reliability of the responses where users estimate the frequency of purchases (for example, where over half of the respondents claim they never make purchases from company emails).

Additionally, previous research on online impulse buying is limited and scales are not as highly developed as they are for offline retailers. Adaptations were made for similar offline and online factors, but then reliability scores are affected and the researcher will not be quite as sure of the results. Similarly, certain factors unique to online retailers (time pressure and website personalization are examples in this case) do not have tested reliability scales and had to be developed by the researcher. Survey results would also be stronger with more observations.

### **Future Research**

It is the researcher's belief that each of the correlations between impulse buying and the predictors could be investigated more thoroughly. Such research could go into deeper detail about why certain factors contribute or inhibit a consumer's reaction to buy impulsively. There is no doubt that there are several subtopics for each predictor that could make an interesting research project on its own. Since impulse buying online is a fairly recent topic for research, as opposed to the amount of studies on offline impulse buying, there is a lot of potential for future research.

In particular, website personalization was not adequately analyzed because of the low reliability score. Questions relating to personalization could be reviewed to develop a stronger set to satisfactorily analyze the factor in the regression model to the dependent variable of unplanned Internet purchases. The results of the cross tabulations including pre-purchase activity show how dominant "already online shopping" was as a response to

what the user was doing prior to making a recent impulse purchase, which seems like a prime target for website recommendations. This could be concluded as evidence supporting further research on this topic.

Another research opportunity lies with the variable measuring time pressure, which could be extended into a separate study. Although this research found it not a significant factor for impulse buying, there is an prospect for expansion of the topic by specifically examining websites which apply techniques that create a sense of urgency and analyzing how consumers react. Similarly, a possible expansion for research can be found in the comparison shopping variable. When included in the regression model for impulse buying online it was not found to be significant. Further research can be conducted to figure out why that is the case when applied to online shopping. Additionally, the questions relating to this variable were adapted from an offline comparison shopping scale, and there is the opportunity to create a set of questions specifically applied to online comparison shopping. These are just a few areas identified as possibilities for future research, but this topic allows for many more research options.

## **Conclusion**

Overall, through the literature review and the results of the regression analysis there seems to be a strong consensus that important factors in offline retail environments are important in online retail environments as well. Especially significant is the general impulsiveness of the consumer. Technology supplies impulsive consumers more and faster ways to shop, but it does not necessarily sway people who are not impulsive to make unplanned purchases. When marketers develop tactics to increase sales from impulse purchases, this is an important characteristic to understand about their consumers. Online outlets allow targeted marketing to be highly personalized, and adjusting ads to suit impulsive consumers can be highly effective. With an increasing amount of online retailers, companies will have to constantly be innovative in their ways to encourage impulse buying in order to stay competitive.

Additionally, customer satisfaction, important offline, is also important online. In an actual retail store a company wants to provide knowledgeable staff, an understandable store layout, and trustworthy service. These same factors are important when serving consumers online. A website needs to provide detailed product information, to be easy to navigate, deliver on promises, and secure personal information. The website design is the environment the customer is shopping in and the retailer needs to make that as pleasing as possible. Retailors spend a lot of time and money creating a pleasant in-store experience, and they should think of their website design in a similar manner.

In the various regression models conducted in this research, the variance explained ranged from around twenty-two percent to thirty-three percent. This allows room to identify additional significant variables that can predict impulsive purchases. Although

several important factors hold true both on and offline, developing effective scales for measuring online specific variables will be essential for future research of this topic.

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## **Appendix A – IRB Exemption Application**

## Application for Exemption from Institutional Oversight

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/ projects using living humans as subjects, or samples, or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.



Institutional Review Board  
Dr. Robert Mathews, Chair  
131 David Boyd Hall  
Baton Rouge, LA 70803  
P: 225.578.8692  
F: 225.578.6792  
irb@lsu.edu  
lsu.edu/irb

-- Applicant, Please fill out the application in its entirety and include the completed application as well as parts A-E, listed below, when submitting to the IRB. Once the application is completed, please submit two copies of the completed application to the IRB Office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at <http://www.lsu.edu/screeningmembers.shtml>

-- A Complete Application Includes All of the Following:

(A) Two copies of this completed form and two copies of part B thru E.

(B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1&2)

(C) Copies of all instruments to be used.

\*If this proposal is part of a grant proposal, include a copy of the proposal and all recruitment material.

(D) The consent form that you will use in the study (see part 3 for more information.)

(E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB. Training link: (<http://phrp.nihtaining.com/users/login.php>.)

(F) IRB Security of Data Agreement: (<http://www.lsu.edu/irb/IRB%20Security%20of%20Data.pdf>)

1) Principal Investigator: Claire Elizabeth Crafts

Rank: Graduate Student

Dept: ISDS

Ph: 318-564-4629

E-mail: ccraft7@lsu.edu

2) Co Investigator(s): please include department, rank, phone and e-mail for each

Dr. James Van Scotter, ISDS, Associate Professor/Thesis Advisor, 225-578-4792, jvanscot@lsu.edu

IRB# 5720 LSU Proposal #

☒ Complete Application

☐ Human Subjects Training

3) Project Title:

Impulse Buying on the Internet

Study Exempted By:

Dr. Robert C. Mathews, Chairman  
Institutional Review Board  
Louisiana State University  
203 B-1 David Boyd Hall  
225-578-8692 | [www.lsu.edu/irb](http://www.lsu.edu/irb)  
Exemption Expires: 10-26-2014

4) Proposal? (yes or no) ☐ No

If Yes, LSU Proposal Number

Also, if YES, either

☐ This application completely matches the scope of work in the grant

OR

☐ More IRB Applications will be filed later

5) Subject pool (e.g. Psychology students) ISDS Students

\*Circle any "vulnerable populations" to be used: (children <18; the mentally impaired, pregnant women, the aged, other). Projects with incarcerated persons cannot be exempted.

6) PI Signature

Date 10/17/2011

(no per signatures)

\*\* I certify my responses are accurate and complete. If the project scope or design is later changes, I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Screening Committee Action: Exempted ☒ Not Exempted ☐ Category/Paragraph 2

Reviewer Mathews

Signature

Date 10/27/11

## Part 1: Determination of "Research" and Potential For Risk

- This section determines whether the project meets the Department of Health and Human Services (HHS) definition of research involving human subjects, and if not, whether it nevertheless presents more than "minimal risk" to human subjects that makes IRB review prudent and necessary.

**1. Is this project involving human subjects a systematic investigation, including research, development, testing, or evaluation, designed to develop or contribute to generalizable knowledge?**

(Note some instructional development and service programs will include a "research" component that may fall within HHS' definition of human subjects research).

☒ YES

☐ NO

**2. Does the project present physical, psychological, social or legal risks to the participants reasonably expected to exceed those risks normally experienced in daily life or in routine diagnostic physical or psychological examination or testing? You must consider the consequences if individual data inadvertently become public.**

☐ YES - Stop. This research cannot be exempted - **submit regular application for IRB review.**

☒ NO-Continue to see if research can be exempted from IRB oversight

**3. Are any of your participants incarcerated?**

☐ YES - Stop. This research cannot be exempted--**submit regular application for IRB review.**

☒ NO-Continue to see if research can be exempted from IRB oversight.

**4. Are you obtaining any health information from a health care provider that contains any of the identifiers listed below?**

A. Names

B. Address: street address, city, county, precinct, ZIP code, and their equivalent geocodes. Exception for Zip codes: the initial three digits of the ZIP Code may be used, if according to current publicly available data from the Bureau of the Census: (1) The geographic unit formed by combining all ZIP codes with the same three initial digits contains more than 20,000 people; and (2) the initial three digits of a ZIP code for all such geographic units containing 20,000 or fewer people is changed to '000'. (Note: The 17 currently restricted 3-digit ZIP codes to be replaced with '000' include: 036, 059, 063, 102, 203, 556, 692, 790, 921, 830, 831, 878, 879, 884, 890, and 893.)

C. Dates related to individuals

i. Birth date

ii. Admission date

iii. Discharge date

iv. Date of death

v. And all ages over 89 and all elements of dates (including year) indicative of such age. Such ages and elements may be aggregated into a single category of age 90 or older.

D. Telephone numbers;

E. Fax numbers;

F. Electronic mail addresses;

G. Social security numbers;

H. Medical record numbers; (including prescription numbers and clinical trial numbers)

I. Health plan beneficiary numbers;

J. Account numbers;

K. Certificate/license numbers;

L. Vehicle identifiers and serial numbers including license plate numbers;

M. Device identifiers and serial numbers;

N. Web Universal Resource Locators (URLs);

O. Internet Protocol (IP) address numbers;

P. Biometric identifiers, including finger and voice prints;

Q. Full face photographic images and any comparable images; and

R. Any other unique identifying number, characteristic, or code; except a code used alone or in combination with other information to identify an individual who is the subject of the information.

☐ YES - Stop. This research cannot be exempted--**submit regular application for IRB review.**

☒ NO- Continue to see if research can be exempted from IRB oversight.

Continue on the next page

## Part 2: Exemption Criteria For Research Projects

Please select any and all categories that relate to your research. Research is exemptible when all research methods are one or more of the following five categories. Check statements that apply to your study:

- ☐ 1. In education setting, research to evaluate normal educational practices.

- ☒ 2. For research not involving vulnerable people (prisoner, fetus, pregnancy, children, or mentally impaired): observe public behavior (including participatory observation), or do interviews or surveys or educational tests:

*The research must also comply with one of the following:*

- ☐ a) The participants cannot be identified, directly or statistically;  
*or that*  
☒ b) The responses/observations could not harm participants if made public;  
*or that*  
☐ c) Federal statute(s) completely protect all participants' confidentiality;

- ☐ 3. For research not involving vulnerable people (prisoner, fetus, pregnancy, children, or mentally impaired): observe public behavior (including participatory observation), or do interviews or surveys or educational tests:

- ☐ All respondents are elected, appointed, or candidates for public offices.

- ☐ 4. Uses only existing data, documents, records, or candidates for public offices.

*The research must also comply with one of the following:*

- ☐ a) Subjects cannot be identified in the research data directly or statistically, and no-one can trace back from research data to identify a participant;  
*or that*  
☐ b) The sources are publicly available

- ☐ 5. Research or demonstration service/care programs, e.g. health care delivery.

- ☐ a) It is directly conducted or approved by the head of a US Govt. department or agency.  
*and that*  
☐ b) It concerns only issues under usual administrative control (48 Fed Reg 9268-9).  
e.g., regulations, eligibility, services, or delivery systems;  
*and that*  
☐ c) Its research/evaluation methods are also exempt from IRB review.

- ☐ 6. For research not involving vulnerable volunteers (see "2&3" above), do food research to evaluate quality, taste, or consumer acceptance.

*The research must also comply with one of the following:*

- ☐ a) The food has no additives;  
*or that*  
☐ b) The food is certified safe by the USDA, FDA, or EPA.

### PART 3: Consent Forms

\* The consent form must be written in non-technical language which can be understood by the subjects. It should be free of any exculpatory language through which the participant is made to waive, or appears to be made to waive any legal rights, including any release of the investigator, sponsor, institution or its agents from liability for negligence. (Note: the consent form is not a contract.)

\* For example consent forms, please refer to our website, [www.lsu.edu/irb](http://www.lsu.edu/irb)

\* The IRB prefers using signed informed consent; However, if that is impractical, an application to waive signed consent can be requested below. However, even if this waiver is requested, the **IRB must be provided with the consent script** that will present the information to human subjects regarding the study/research. All consent forms or scripts must include a statement that the study was approved or exempted by the IRB and provide IRB contact information to participants.

**I am requesting waiver of signed Informed Consent because:**

- ☐ (a) Having a participant sign the consent form would create the **principal risk** of participating in the study.

**or that**

- ☐ (b) The research presents **no more than minimal risk** of harm to subjects and involves no procedures for which having signed consent is normally required.

Now that your application is complete, please send two copies of it to the IRB office for review, the address is listed below, OR you can send it to one of the Human Subjects Screening Committee Members. The list of Committee Members can be found here "<http://www.lsu.edu/irb/screeningmembers.shtml>"

Institutional Review Board  
Dr. Robert Mathews, Chair  
131 David Boyd Hall  
Baton Rouge, LA 70803  
P: 225.578.8692  
F: 22.578.6792  
[irb@lsu.edu](mailto:irb@lsu.edu)  
[lsu.edu/irb](http://lsu.edu/irb)

Print Form

## **Project Description - Impulse Buying on the Internet**

### **Introduction**

The thesis topic of impulse buying on the Internet will look at research conducted on impulse buying and how companies are incorporating technology into their business strategies to encourage impulse buying online. Some research suggests that creating an environment online that stimulates impulsive purchases is more difficult than traditional retail stores. However, with the increased technological advances and a more interactive web companies are becoming savvier in growing sales online. There are even companies who only operate online and rely solely on impulse purchases. Companies have unprecedented access to customers through online outlets and to generate sales they are trying to be where the customers are spending time. Companies reach out to customers in emails, texts, online advertising, and social media sites. In addition to a literature review exploring studies on impulse buying, a proposed survey is planned to be conducted in order to understand the current outlets companies are using and which is considered the most effective. This will then be used to compare to the previous research and how these successful technologies compare with previous thinking about the conditions that promote impulse buying.

### **Survey**

The researcher will provide an online link for participants and the survey is conducted on a voluntary basis. The survey will not ask for any identifiable information (names, social security numbers, email addresses, or similar attributes) and the published results can in no way be traced back to the participant.

The survey contains approximately seventy questions that will take approximately fifteen minutes to complete. The questions revolve around which online methods (email, text, online advertising, and social media) he/she has made unplanned purchases through, how frequently those occur, and whether or not he/she considers his/herself an impulsive buyer. Next are two groups of questions about general shopping habits and Internet shopping habits. The survey concludes with several questions about their last unplanned purchase made through an online retailer. It is hoped that this survey will give insight into what prompts an impulse purchase online and what website features the user finds most appealing when an impulse purchase occurs.

Students participating in this survey may receive extra credit for a class in exchange for their time. Students will need to enter a five to eight digit password and will need to provide that number to their professor. The professor will receive a list of passwords provided and can confirm which students participated. This number will not be able to identify a student in the published results and will only be used to determine extra credit eligibility for the ISDS

professors. The professor will not be able to see the corresponding responses to the survey, only the given password.



Consent Form

**Study Title:** Impulse Buying on the Internet

**Performance Site:** Louisiana State University

**Investigators:** The following investigators are available for questions about this study:  
 Claire Crafts ccraft7@lsu.edu  
 Dr. James Van Scotter jvanscot@lsu.edu

**Purpose of the Study:** The purpose of the study is to better understand how participants are making unplanned purchases online.

**Subject Inclusion:** LSU ISDS students

**Study Procedures:** A link will be available to participants for a voluntary, online survey. The survey consists of approximately seventy questions regarding online shopping habits. The survey does not collect any identifying information and responses are anonymous. A participant's answers will in no way be linked to that participant. The survey will take about fifteen minutes to complete.

**Benefits:** A student participant may receive extra credit for the survey.

**Risks:** There are no known risks to participants.

**Right to Refuse:** Participation is voluntary and may be withdrawn at any time.

**Privacy:** Results of the study may be published, but no names or other identifying information will be included. Such information is not collected.

The study has been explained to me and I may direct any additional questions to the study investigators. If I have any questions regarding subjects' rights or other concerns, I can contact Robert C. Matthews, Institutional Review Board, (225)578-8822, irb@lsu.edu, www.lsu.edu/irb. By continuing, I agree to participate in the study described above and acknowledge the investigator's obligation to provide me with a copy of this consent form.

Website Advertising

This survey is part of research trying to better understand Internet buying habits. The questions focus on Internet buying habits, general buying habits, and a recent purchase. Thank you in advance for your time!

**Gender:**

☐ Male

☐ Female

**Year born:**

\_\_\_\_\_

How often do you make purchases from the Internet?

☐ Never

☐ Less than Once a Month

☐ Once a Month

☐ 2-3 Times a Month

☐ Once a Week

☐ 2-3 Times a Week

☐ Daily

How often do you make an unplanned impulse purchase from the Internet?

☐ Never

☐ Less than Once a Month

☐ Once a Month

☐ 2-3 Times a Month

☐ Once a Week

☐ 2-3 Times a Week

☐ Daily

How often do you visit a website based on an Internet advertisement (ex. banner ads) featuring a sale or promotion?

☐ Never

☐ Less than Once a Month

☐ Once a Month

☐ 2-3 Times a Month

☐ Once a Week

☐ 2-3 Times a Week

☐ Daily

How many times has clicking through from an advertisement resulted in a purchase over the past three months?

☐ 0

☐ 1-2

☐ 3-5

☐ 6+

How often do you visit a website based on an email advertising a sale or promotion?

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

How many times has clicking through from an email resulted in a purchase over the past three months?

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

Do you have a Facebook account?

- ☐ Yes
- ☐ No

How often do you visit a website based on a Facebook post about a sale or promotion?

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

How many times has clicking through from a Facebook post resulted in a purchase over the past three months?

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

Do you have a Twitter Account?

- ☐ Yes
- ☐ No

How often do you visit a website based on a Tweet about a sale or promotion?

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

How many times has clicking through from a tweet resulted in a purchase over the past three months?

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

How often do you visit a website based on a text advertising a sale or promotion?

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

How many texts resulted in a purchase?

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

**General Shopping Habits**

Please rate your level of agreement with the following statements about your general shopping habits:

If I see something I like, I'll buy it.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It is fun to buy things spontaneously.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I like to purchase things on a whim.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If I see something new I buy it right away.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A free gift/bonus offer helps me justify an unplanned purchase.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

My unplanned purchases are usually from a brand I already own.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I carefully plan most of my purchases.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<https://new.qualtrics.com/ControlPanel/PopUp.php?PopType=SurveyPrintPreview&WID...> 10/19/2011

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

I shop around to find the best price.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I only buy when I am sure I am getting a bargain.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I can't pass up a good sale.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I enjoy the feeling of getting a deal.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel like a successful shopper when I find a good deal.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I am more likely to try a new brand if it is on sale.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I enjoy shopping.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I consider myself a trendsetter.

<https://new.qualtrics.com/ControlPanel/PopUp.php?PopType=SurveyPrintPreview&WID...> 10/19/2011

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I am the one that introduces new products to my friends.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality is important to me.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After buying something impulsively, I often question my decision.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I am having trouble deciding about an item, it is more likely that I will buy it to prevent feeling like I missed something later.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Internet Habits</b>				
Please answer the following questions based on your Internet habits:				
I get diverted easily when on the Internet and often end up on sites that I had not planned on visiting.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often end up spending more time online than I intended.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<https://new.qualtrics.com/ControlPanel/PopUp.php?PopType=SurveyPrintPreview&WID...> 10/19/2011

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Most of my time online is spent not looking for anything in particular.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often check the price at multiple websites before making a purchase.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Before making a purchase I often compare websites based on factors other than price (i.e. trust, reliability, customer service).				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I look for security features on websites before giving my credit card information.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I only make unplanned purchases from websites I have used before.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often store my credit cards on my favorite sites in order to make the ordering process faster.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a website makes a recommendation based on the likes of other users, I often trust that recommendation.				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I only trust buying from a professional looking website.				

<https://new.qualtrics.com/ControlPanel/PopUp.php?PopType=SurveyPrintPreview&WID...> 10/19/2011

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Multiple product images are an important factor when making an unplanned purchase online.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I like it when a website makes recommendations because it helps me discover new products.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Customer reviews help me decide to make an unplanned purchase decisions when shopping online.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If I am under time pressure, my instinct is to go ahead and make the purchase.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Knowing the quantity left of an item helps me make my purchase decision (i.e. if you know there are only five of a particular product left).

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If I know there is a limited quantity of a certain product it is more likely I will make a quick decision to purchase it now.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Free shipping increases the likelihood of buying an unplanned item.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If the online checkout process is too long, I will abandon my purchase.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If a website requires me to create an account in order to complete the checkout process, I usually leave the site.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is the deciding factor when making an unplanned purchase online?

<input type="radio"/> Price	<input type="radio"/> Brand new item
<input type="radio"/> Free shipping	<input type="radio"/> Appeal of the item
<input type="radio"/> Free gift/bonus offer	<input type="radio"/> Recommendations

Recent Purchase Online

For the next set of questions, please think about the last unplanned purchase you made over the Internet:

My most recent unplanned purchase would fall under:

<input type="radio"/> Clothing, shoes, or accessories
<input type="radio"/> Computers or electronics
<input type="radio"/> DVD, music, or books
<input type="radio"/> Home or garden
<input type="radio"/> Sports or outdoors
<input type="radio"/> Other

What website did you use to make your most recent unplanned purchase?

Before that purchase

<input type="radio"/> I was already doing online shopping and looking for something specific.
---

- ☐ I was browsing the Internet and happened to come to the website.
- ☐ I came to the website from an advertisement.
- ☐ I saw heard something online that triggered me to go to the website.

I can describe the exact path of how I got to the website where I made the unplanned purchase.

- ☐ Yes
- ☐ No

My feelings during the purchase decision was that:

- ☐ I was in a good mood and enjoying shopping.
- ☐ I felt like I needed something to cheer me up.
- ☐ I was bored.
- ☐ Other:

I have made many previous purchases from this website.

- ☐ Yes
- ☐ No

How often do you make purchases from this site?

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

The cost range of my most recent unplanned purchase was:

- ☐ Under \$50
- ☐ \$50-\$100
- ☐ \$101-\$300
- ☐ \$301-\$500

- ☐ Above \$500

I know other people that make frequent purchases from this site.

- ☐ Yes
- ☐ No

I found the website's design very appealing.

- |                       |                       |                            |                       |                       |
|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| Strongly Agree        | Agree                 | Neither Agree nor Disagree | Disagree              | Strongly Disagree     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |

The website was easy to navigate.

- |                       |                       |                            |                       |                       |
|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| Strongly Agree        | Agree                 | Neither Agree nor Disagree | Disagree              | Strongly Disagree     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |

I had a limited amount of time to make the purchase decision.

- ☐ Yes
- ☐ No

I purchased an item recommended by the website.

- ☐ Yes
- ☐ No

My credit card is stored on this website for easy checkout.

- ☐ Yes
- ☐ No

End of Survey

If you are not a student, please continue to the next screen for your responses to be recorded.

If you are a student doing this for extra credit, please enter a five to eight digit password:

You will need to provide your professor with this password for confirmation of completion in order receive credit for the survey.

Please continue to the next screen for your responses to be recorded.

Thank you for your time!

## **Consent Script**

*Study Title:* Impulse Buying on the Internet

*Performance Site:* Louisiana State University

*Investigators:* The following investigators are available for questions about this study:

Claire Crafts [ccraft7@lsu.edu](mailto:ccraft7@lsu.edu)

Dr. James Van Scotter [jvanscot@lsu.edu](mailto:jvanscot@lsu.edu)

*Purpose of the Study:* The purpose of the study is to better understand how participants are making unplanned purchases online.

*Subject Inclusion:* LSU ISDS students

*Study Procedures:* A link will be available to participants for a voluntary, online survey. The survey consists of approximately seventy questions regarding online shopping habits. The survey does not collect any identifying information and responses are anonymous. A participant's answers will in no way be linked to that participant. The survey will take about fifteen minutes to complete.

*Benefits:* A student participant may receive extra credit for the survey.

*Risks:* There are no known risks to participants.

*Right to Refuse:* Participation is voluntary and may be withdrawn at any time.


*Privacy:* Results of the study may be published, but no names or other identifying information will be included. Such information is not collected.

The study has been explained to me and I may direct any additional questions to the study investigators. If I have any questions regarding subjects' rights or other concerns, I can contact Robert C. Mathews, Institutional Review Board, (225)578-8692, [irb@lsu.edu](mailto:irb@lsu.edu), [www.lsu.edu/irb](http://www.lsu.edu/irb). By continuing, I agree to participate in the study described above and acknowledge the investigator's obligation to provide me with a copy of this consent form.

### **Study Exempted By:**

Dr. Robert C. Mathews, Chairman  
Institutional Review Board  
Louisiana State University  
203 B-1 David Boyd Hall  
225-578-8692 | [www.lsu.edu/irb](http://www.lsu.edu/irb)  
Exemption Expires: 10-26-2014





### **Certificate of Completion**

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Claire Crafts** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 10/18/2011

Certification Number: 789040

## **Appendix B – Survey**

### **Consent Form**

**Study Title:** Impulse Buying on the Internet

**Performance Site:** Louisiana State University

**Investigators:** The following investigators are available for questions about this study:

Claire Crafts [ccraft7@lsu.edu](mailto:ccraft7@lsu.edu)

Dr. James Van Scotter [jvanscot@lsu.edu](mailto:jvanscot@lsu.edu)

**Purpose of the Study:** The purpose of the study is to better understand how participants are making unplanned purchases online.

**Subject Inclusion:** LSU ISDS students

**Study Procedures:** A link will be available to participants for a voluntary, online survey. The survey consists of approximately seventy questions regarding online shopping habits. The survey does not collect any identifying information and responses are anonymous. A participant's answers will in no way be linked to that participant. The survey will take about fifteen minutes to complete.

**Benefits:** A student participant may receive extra credit for the survey.

**Risks:** There are no known risks to participants.

**Right to Refuse:** Participation is voluntary and may be withdrawn at any time.

**Privacy:** Results of the study may be published, but no names or other identifying information will be included. Such information is not collected.

The study has been explained to me and I may direct any additional questions to the study investigators. If I have any questions regarding subjects' rights or other concerns, I can contact Robert C. Mathews, Institutional Review Board, (225)578-8692, [irb@lsu.edu](mailto:irb@lsu.edu), [www.lsu.edu/irb](http://www.lsu.edu/irb) and reference IRB# E5720. By continuing, I agree to participate in the study described above and acknowledge the investigator's obligation to provide me with a copy of this consent form.

### **Website Advertising**

This survey is part of research trying to better understand Internet buying habits. The questions focus on Internet buying habits, general buying habits, and a recent purchase. Thank you in advance for your time!

**Gender:**

☐ Male

☐ Female

**Year born:**

**How often do you make purchases from the Internet?**

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

**How often do you make an unplanned/impulse purchase from the Internet?**

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

**How often do you visit a website based on an Internet advertisement (ex. banner ads) featuring a sale or promotion?**

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

**How many times has clicking through from an advertisement resulted in a purchase over the past three months?**

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

**How often do you visit a website based on an email advertising a sale or promotion?**

<https://new.qualtrics.com/ControlPanel/PopUp.php?PopType=SurveyPrintPreview&WID...> 11/10/2011

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

**How many times has clicking through from an email resulted in a purchase over the past three months?**

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

**Do you have a Facebook account?**

- ☐ Yes
- ☐ No

**How often do you visit a website based on a Facebook post about a sale or promotion?**

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

**How many times has clicking through from a Facebook post resulted in a purchase over the past three months?**

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

**Do you have a Twitter Account?**

- ☐ Yes
- ☐ No

**How often do you visit a website based on a Tweet about a sale or promotion?**

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

**How many times has clicking through from a tweet resulted in a purchase over the past three months?**

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

**How often do you visit a website based on a text advertising a sale or promotion?**

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

**How many texts resulted in a purchase?**

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6+

<https://new.qualtrics.com/ControlPanel/PopUp.php?PopType=SurveyPrintPreview&WID...> 11/10/2011

**General Shopping Habits**

Please rate your level of agreement with the following statements about your general shopping habits:

**If I see something I like, I'll buy it.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**It is fun to buy things spontaneously.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I like to purchase things on a whim.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**If I see something new I buy it right away.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**A free gift/bonus offer helps me justify an unplanned purchase.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**My unplanned purchases are usually from a brand I already own.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I carefully plan most of my purchases.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<https://new.qualtrics.com/ControlPanel/PopUp.php?PopType=SurveyPrintPreview&WID...> 11/10/2011

**I shop around to find the best price.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I only buy when I am sure I am getting a bargain.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I can't pass up a good sale.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I enjoy the feeling of getting a deal.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I feel like a successful shopper when I find a good deal.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I am more likely to try a new brand if it is on sale.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I enjoy shopping.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**I consider myself a trendsetter.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**I am the one that introduces new products to my friends.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**Quality is important to me.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**After buying something impulsively, I often question my decision.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**If I am having trouble deciding about an item, it is more likely that I will buy it to prevent feeling like I missed something later.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

#### **Internet Habits**

**Please answer the following questions based on your Internet habits:**

**I get diverted easily when on the Internet and often end up on sites that I had not planned on visiting.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**I usually have multiple Internet tabs and/or windows open at one time.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐



**I often end up spending more time online than I intended.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**Most of my time online is spent not looking for anything in particular.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**I often check the price at multiple websites before making a purchase.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**Before making a purchase I often compare websites based on factors other than price (i.e. trust, reliability, customer service).**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**I look for security features on websites before giving my credit card information.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**I only make unplanned purchases from websites I have used before.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**I often store my credit cards on my favorite sites in order to make the ordering process faster.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**If a website makes a recommendation based on the likes of other users, I often trust that recommendation.**

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>I only trust buying from a professional looking website.</b>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Multiple product images are an important factor when making an unplanned purchase online.</b>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>I like it when a website makes recommendations because it helps me discover new products.</b>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Customer reviews help me decide to make an unplanned purchase decisions when shopping online.</b>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>If I am under time pressure, my instinct is to go ahead and make the purchase.</b>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Knowing the quantity left of an item helps me make my purchase decision (i.e. If you know there are only five of a particular product left).</b>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>If I know there is a limited quantity of a certain product it is more likely I will make a quick decision to purchase it now.</b>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Free shipping increases the likeliness of buying an unplanned item.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**If the online checkout process is too long, I will abandon my purchase.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**If a website requires me to create an account in order to complete the checkout process, I usually leave the site.**

Strongly Disagree      Disagree      Neither Agree nor Disagree      Agree      Strongly Agree

☐      ☐      ☐      ☐      ☐

**What is the deciding factor when making an unplanned purchase online?**

- |   |  |
|---|--|
| <input type="radio"/> Price                 | <input type="radio"/> Brand new item     |
| <input type="radio"/> Free shipping         | <input type="radio"/> Appeal of the item |
| <input type="radio"/> Free gift/bonus offer | <input type="radio"/> Recommendations    |

#### Recent Purchase Online

**For the next set of questions, please think about the last unplanned purchase you made over the Internet:**

**My most recent unplanned purchase would fall under:**

- ☐ Clothing, shoes, or accessories
- ☐ Computers or electronics
- ☐ DVD, music, or books
- ☐ Home or garden
- ☐ Sports or outdoors
- ☐ Other

**What website did you use to make your most recent unplanned purchase?**

**Before that purchase**

- ☐ I was already doing online shopping and looking for something specific.
- ☐ I was browsing the Internet and happened to come to the website.
- ☐ I came to the website from an advertisement.
- ☐ I saw/heard something offline that triggered me to go to the website.

**I can describe the exact path of how I got to the website where I made the unplanned purchase.**

- ☐ Yes
- ☐ No

**I was probably multitasking when I made this purchase.**

- |                       |                       |                            |                       |                       |
|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| Strongly Disagree     | Disagree              | Neither Agree nor Disagree | Agree                 | Strongly Agree        |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |

**When I was making this purchase my focus was spread out over several activities on or offline (for example, watching tv and online shopping).**

- |                       |                       |                            |                       |                       |
|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| Strongly Disagree     | Disagree              | Neither Agree nor Disagree | Agree                 | Strongly Agree        |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |

**My feelings during the purchase decision was that:**

- ☐ I was in a good mood and enjoying shopping.
- ☐ I felt like I needed something to cheer me up.
- ☐ I was bored.
- ☐ Other:

**I have made many previous purchases from this website.**

- ☐ Yes
- ☐ No

How often do you make purchases from this site?

- ☐ Never
- ☐ Less than Once a Month
- ☐ Once a Month
- ☐ 2-3 Times a Month
- ☐ Once a Week
- ☐ 2-3 Times a Week
- ☐ Daily

The cost range of my most recent unplanned purchase was:

- ☐ Under \$50
- ☐ \$50-\$100
- ☐ \$101-\$200
- ☐ \$201-\$500
- ☐ Above \$500

I know other people that make frequent purchases from this site.

- ☐ Yes
- ☐ No

I found the website's design very appealing.

- |                       |                       |                            |                       |                       |
|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| Strongly Disagree     | Disagree              | Neither Agree nor Disagree | Agree                 | Strongly Agree        |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |

The website was easy to navigate.

- |                       |                       |                            |                       |                       |
|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| Strongly Disagree     | Disagree              | Neither Agree nor Disagree | Agree                 | Strongly Agree        |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> |

I had a limited amount of time to make the purchase decision.

- ☐ Yes
- ☐ No

I purchased an item recommended by the website.

☐ Yes

☐ No

My credit card is stored on this website for easy checkout.

☐ Yes

☐ No

#### End of Survey

If you are not a student, please continue to the next screen for you responses to be recorded.

If you are a student doing this for extra credit, please enter a five to eight digit password:

You will need to provide your professor with this password for confirmation of completion in order receive credit for the survey.

Please continue to the next screen for your responses to be recorded.

Thank you for your time!

## Appendix C – Factor Analysis

Rotated Factor Matrix <sup>a</sup>											
Variable	Survey Question	Factor									
		1	2	3	4	5	6	7	8	9	10
ImpulsiveBuy	I like to purchase things on a whim.	.79									
	It is fun to buy things spontaneously.	.68									
	If I see something new I buy it right away.	.55									
	If I see something I like, I'll buy it.	.52									
	If I am having trouble deciding about an item, it is more likely that I will buy it to prevent feeling like I missed something later.	.38									
CustSatisfaction	I found the website's design very appealing.		.71								
	The website was easy to navigate.		.66								
	I only trust buying from a professional looking website.		.46								
	Quality is important to me.		.44								
	I look for security features on websites before giving my credit card information.		.40								
	Multiple product images are an important factor when making an unplanned purchase online.		.37								
InternetFlow	I only make unplanned purchases from websites I have used before.		.32								
	I often end up spending more time online than I intended.			.69							
	Most of my time online is spent not looking for anything in particular.			.63							
	I get diverted easily when on the Internet and often end up on sites that I had not planned on visiting			.51							
	I usually have multiple Internet tabs and/or windows open at one time.			.47							
TimePressure	If I know there is a limited quantity of a certain product it is more likely I will make a quick decision to purchase it now.				.83						
	Knowing the quantity left of an item helps me make my purchase decision.				.80						
CompareShop	I shop around to find the best price.					.80					
	I only buy when I am sure I am getting a bargain.					.61					
	I often check the price at multiple websites before making a purchase.					.51					
Sale	I enjoy the feeling of getting a deal.						.72				
	I feel like a successful shopper when I find a good deal.						.70				
	I am more likely to try a new brand if it is on sale.						.30				
MultiTask	I was probably multitasking when I made this purchase.							.79			
	When I was making this purchase my focus was spread out over several activities on or offline.							.75			
TrendSetter	I am the one that introduces new products to my friends.								.78		
	I consider myself a trendsetter.								.76		
Checkout	If a website requires me to create an account in order to complete the checkout process, I usually leave the site.									.62	
	If the online checkout process is too long, I will abandon my purchase.									.55	
Recommendation	If a website makes a recommendation based on the likes of other users, I often trust that recommendation.										.65
	I like it when a website makes recommendations because it helps me discover new products.										.50
Extraction Method: Principal Axis Factoring.											
Rotation Method: Varimax with Kaiser Normalization.											
a. Rotation converged in 12 iterations.											

## **Appendix D – Correlations Matrix**



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1 Gender																																	
2 Previous purchase from website	-0.01																																
3 Purchase cost	-0.03	0.06																															
4 Knows others who use the same site	-0.01	.32**	0.02																														
5 Frequency of purchases from the website	-0.05	.50**	0.08	.35**																													
6 Limited time to make decision	0.00	-0.05	0.05	0.08	-0.1																												
7 Purchased recommended item	0.06	0.06	0.09	0.05	0.03	.16**																											
8 Stored credit card	0.08	.32**	0.05	.27**	.31*	0.05	.19**																										
9 Impulsive Buys	-.16**	.17**	.17**	0.09	.21*	0.01	0.10	.12*																									
10 Customer satisfaction	0.01	.25**	.18**	.11*	.24**	-.12*	0.02	0.04	.15**																								
11 Internet session flow	-0.05	0.09	.17**	0.05	.20**	-0.03	0.03	.13*	.29**	.33**																							
12 Time pressure	-.18**	.10*	.17**	0.09	.17**	.11*	.13*	0.06	.38**	.22**	.26**																						
13 Comparison shopping	0.05	0.03	-0.1	0.02	-0.10	0.03	.12*	0.05	-.22**	.18**	-0.03	0.00																					
14 Multitasking	-0.06	0.07	0.05	0.07	.16**	-0.01	.11*	0.09	.29**	.18**	.33**	.19**	-0.10																				
15 Trend setter	-.15**	0.06	.12*	0.05	.15**	-0.01	0.01	0.04	.45**	0.03	.10*	.25**	-0.07	.13**																			
16 Mood: Happy	-0.07	0.09	0.03	0.09	0.06	-0.04	0.04	-.11*	.16**	.16**	-0.01	.11*	0.03	-0.08	0.06	.14**																	
17 Mood: Needed cheering up	-0.05	0.04	0.06	0.01	0.08	0.06	0.01	.12*	0.01	-0.01	.11*	0.03	-0.08	0.06	0.01	-.42**	-.15**																
18 Mood: Bored	0.05	-0	-0.09	-0	-0.05	0.01	0.01	0.05	-0.06	-0.09	-0.02	-0.05	-0.07	0.08	-.11*	-.47**	-.15**																
19 Deciding Factor: Price	0.03	-0	-.17**	0.01	-0.03	0.06	-0.01	-.12*	-.17**	-0.01	-0.06	-0.06	.178**	-0.01	-0.08	0.09	-0.08	-0.04															
20 Deciding Factor: Free shipping	-.11*	0.05	0.03	.13*	0.01	0.01	.10*	.16**	0.04	0.04	-0.07	0.03	.126*	0.00	0.06	0.03	-0.03	-0.02	-.37**														
21 Deciding Factor: Free gift	-0.03	-0.09	0.01	-0.1	-0.06	-0.1	-0.06	-0.01	-0.02	-0.08	-0.01	-0.05	-0.02	-0.05	-0.02	-0.02	0.08	0.01	-.18**	-0.03													
22 Deciding Factor: New item	-0.07	-0.04	-0.03	0.06	0.03	-0.1	-0.05	0.03	-0.02	-0.05	-0.07	0.06	-0.05	-.13*	0.05	-0.01	0.04	0.03	-.14**	-0.03	-0.01												
23 Deciding Factor: Appeal of the item	0.05	0.07	.19**	-.10*	0.06	-0.04	0.01	0.07	.20**	0.03	.10*	0.04	-.29**	0.03	0.07	-0.06	0.04	0.03	-.75**	-.13**	-0.06	-0.05											
24 Deciding Factor: Recommendation	0.01	-.11*	-0.04	0.06	-0.05	0	-0.05	-0.1	-0.04	-0.03	0.05	0.03	0.07	0.08	-0.04	-.13**	0.08	0.02	-.24**	-0.04	-0.02	-0.02	-0.09										
25 Category: Clothing, shoes, or accessories	-.33**	0.07	0.03	0.04	0.06	0.03	-0.09	-0.1	.16**	0.02	-0.01	.13*	-0.06	0.00	.18**	.11*	0.03	-0.06	0.01	0.02	-0.03	0.03	0.02	-.11*									
26 Category: Computers or electronics	.15**	0.00	.12*	-0	-0.06	-0.09	0.07	0.04	0.05	0.04	0.01	0.03	.100*	-0.01	-0.02	-0.01	0.06	-0.01	-0.05	-0.01	0.07	0.03	0.00	0.07	-.49**								
27 Category: Books, music, or DVDs	.20**	0.03	-.12*	.13**	.15**	-0.02	0.04	.18**	-.13*	0.00	0.01	-.13**	-0.06	.14**	-0.10	-.10*	0.00	.15**	0.01	0.00	-0.05	-0.04	0.01	0.03	-.46**	-.15**							
28 Category: Home or garden	-0.1	0.03	0	-0	0.02	-0.02	0.00	0.05	-.11*	0.08	0.07	0.00	.11*	0.07	-.15**	-0.04	-0.04	0.08	0.03	0.06	-0.01	-0.01	-0.06	-0.02	-.14**	-0	-0.04						
29 Category: Sports or outdoors	.15**	-0.03	-0.04	-0.1	-.11*	0.05	0.09	-.10*	-.11*	-.11*	-0.07	-0.09	0.03	-.15**	-0.08	0.06	-0.06	-0.05	-0.05	-0.03	0.05	-0.03	0.06	0.02	-.32**	-.10*	-.10*	-0					
30 Pre-purchase: Online shopping	0.07	.16**	0.05	0	-0.02	-0.04	0.02	0.05	0.04	.15**	-.10*	-0.04	.10*	-0.06	0.01	0.07	-0.01	-0.06	-0.04	0.02	0.01	-0.09	0.02	0.08	-0.01	0.08	0.00	0.07	-0.05				
31 Pre-purchase: Browsing	-.11*	-0.03	-0.07	-0	0.02	-0.05	-0.03	-0.06	0.1	-0.04	0.03	0.08	-.13*	.12*	0.04	-0.08	0.04	0.08	-0.04	-0.01	0.05	0.09	0.02	-0.03	0.04	-0.06	0.01	-0.05	0.04	-0.43**			
32 Pre-purchase: Ad clickthru	-0	-0.06	0	-.10*	0.03	0.07	0.02	0.04	-0.03	0.00	0.07	0.07	0.05	.11*	0.03	-0.04	0.01	0.04	0.00	-0.05	-0.04	0.05	0.01	0.05	.13*	-0.06	-0.07	0.04	-0.09	-.31*	-.15**		
33 PrePurchase: Offline trigger	0.04	-.12*	0.00	0.02	-0.02	0.04	-0.02	-0.03	-.10*	-.14**	0.03	-0.07	-0.04	-.11*	-0.06	0.01	-0.04	-0.03	0.08	0.01	-0.03	0.00	-0.05	-.10*	-.10*	-0	0.03	-0.07	0.07	-.57**	-.27**	-.19**	
34 Unplanned Internet purchases	-.12*	.26**	.16**	.13**	.41**	0.01	0.04	.10*	.38**	.22**	.29**	.23**	-0.06	.23**	.17**	0.09	0.03	-0.06	-0.05	-0.01	-0.08	-0.04	.114*	-0.05	.13**	-0	-0.01	-0.01	-.11*	-0.03	0.08	.17**	-.15**
**. Correlation is significant at the 0.01 level (2-tailed).																																	
*. Correlation is significant at the 0.05 level (2-tailed).																																	

## **Appendix E – Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Alpha Reliability
<b>Unplanned Internet Purchases</b>	406	1	6	2.10	.957	---
<b>Impulsiveness</b>	406	1.00	4.80	2.86	0.70	0.77
<b>Customer Satisfaction</b>	406	1.43	5.00	3.82	0.50	0.69
<b>Internet Session Flow</b>	406	1.00	5.00	3.79	0.69	0.70
<b>Time Pressure</b>	406	1.00	5.00	3.22	0.94	0.87
<b>Comparison Shopping</b>	406	1.33	5.00	3.43	0.76	0.70
<b>Multitasking</b>	406	1.00	5.00	3.18	1.03	0.81
<b>Trendsetter</b>	406	1.00	5.00	2.92	0.94	0.83
<b>Sale</b>	406	2.00	5.00	3.88	0.58	0.61
<b>Checkout</b>	406	1.00	5.00	3.19	0.83	0.60
<b>Recommendation</b>	406	1.00	5.00	3.14	0.75	0.54

## **Vita**

Claire Elizabeth Crafts is from Shreveport, Louisiana. She graduated from Southern Methodist University in Dallas, Texas in 2007 with a Bachelor of Science in Management Science from the School of Engineering. She plans on graduating in May 2012 with a Master of Science in Information Systems and Decision Sciences from the Department of Information Systems and Decision Sciences in the E.J. Ourso College of Business at Louisiana State University and Agricultural and Mechanical College in Baton Rouge, Louisiana.