College Students’ E-Coupon Search Behavior:
A Theory of Planned Behavior Perspective

A thesis presented to
the faculty of
the Scripps College of Communication of Ohio University

In partial fulfillment
of the requirements for the degree
Master of Science

Yifu Lu
August 2014
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This thesis titled
College Students’ E-Coupon Search Behavior:
A Theory of Planned Behavior Perspective

by
YIFU LU

Has been approved for
the E.W. Scripps School of Journalism
and the Scripps College of Communication by

Jatin Srivastava
Assistant Professor of Journalism

Scott Titsworth
Dean, Scripps College of Communication
ABSTRACT

LU, YIFU, M.S., August 2014, Journalism

College Students’ E-Coupon Search Behavior: A Theory of Planned Behavior Perspective

Director of Thesis: Jatin Srivastava

This thesis examined the theory of planned behavior in e-coupon searching scenario for college students. A survey was conducted to investigate that associations between e-coupon search intention and multiple variables of interest. Results indicate that college consumers’ e-coupon search intention is positively correlated to perceived behavior control for e-coupon search. This thesis also explored the relationship between e-coupon search intention and product involvement level; no significant difference of e-coupon search intention was found between high and low involvement product categories. It was also discovered that e-coupon search intention is not related to age, year of college, and gender among college students.
ACKNOWLEDGMENTS

I would like to acknowledge the support and guidance of my committee chair, Dr. Jatin Srivastava, as well as Professor Craig Davis and Dr. Cheng Hong for their work in bringing this project to completion. I would also like to thank the contributions of Dr. Carson B. Wagner in offering guidance to the development of the project idea. Finally, I wish to thank the members of my cohort, my parents, and my fiancée, Chenchen, who gave their tireless support through this academic journey.
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CHAPTER 1: INTRODUCTION

Since the publishing of the first coupon in 1887 by the Atlanta Businessman Asa Candler, coupons have been favored by both marketers and consumers for more than a century (Tuttle, 2011). In 2011, it was reported that U.S. customers have redeemed $4.6 billion of coupons for their shopping (PR Newswire, 2011). According to the NCH Company, coupons can be categorized into three major types based on its delivery methods: print media coupon, Internet coupon, and mobile coupon (2013). With online shopping being increasingly adopted by consumers, Internet coupons are now becoming increasingly popular among consumers. Reports show that the Internet coupon contributed 92 percent of the total coupon redemption in the year of 2010, and the Internet redemption itself has grown over 360 percent in the same year (JPS, 2011).

Among different formats of Internet coupons, some coupons are Internet searchable, which consumers can seek out and redeem when they are shopping online. Many e-commerce sites offer a section for customers to fill promotional code or coupon code on their checkout pages. In this study, all types of coupons that can be searched and applied before online shopping checkout are named as searchable e-coupon.

According to Kang et al. (2006), as an advanced form of coupon, contrary to traditional physical coupons, e-coupons have changed the way coupon promotions operate. In general, coupon redemption rates have increased since the emergence of e-coupons. In specific, first, consumers’ role shifts from passive receiver of physical coupons to active searcher of e-coupons; second, e-coupons last longer than physical coupons; and third, consumers’ cost for searching and collecting e-coupons is lower than for physical coupons. There are numerous studies focused on consumers’ attitude or
behavior related to traditional coupons (Aronson et al., 2006; Dodson et al., 1977; Bawa & Shoemaker, 1987), only a few studies focused on e-coupons (Kang et al., 2006; Muk, 2012). However, in today’s online shopping scenario, consumers search coupons actively for their online shopping purpose (Kang et al., 2006). And among all the consumer segments in the U.S., the college student consumer segment has the highest access rate on the Internet (Miller & Washington, 2013). Students shop proactively online. According to Miller and Washington’s study, in the academic year 2013-2013, spending by U.S. college students has more than doubled in several categories, including apparel (up 126%), technology (up 227%), personal care products (up 105%), and cosmetics (up 280%) (2013). The student group has vigorous power in e-commerce business. However, little research has been done to study college student’s e-coupon search behavioral intention.

To explore this specific niche, this study proposes to find out and verify the factors that influence college students’ e-coupon search intention. Based on previous studies, The Theory of Planned Behavior was applied to this study to generate hypotheses. It is attempted to find out multiple sets of correlations regarding college students’ e-coupon search behavioral intention: the relationship between college students’ perceive behavior control for e-coupon search behavior and their future e-coupon searching intention for online shopping; the relationship between product involvement level and college students’ e-coupons searching intention when shopping online in different product category; and the relationship between college students’ e-coupon search behavior and demographic factors, such as age, year of college, gender, etc.
CHAPTER 2: LITERATURE REVIEW

*Time* Magazine, in an article about the history of coupons, reported Coca-Cola as the first brand to introduce coupons to the marketing world in 1887 as a device of sales promotion (Tuttle, 2010). After more than a century, coupon marketing is still demonstrating its power: $3.5 billion of coupons were redeemed for discount in 2009. The number of coupons used was 700,000 more than in 2008. However, despite its overall increase of redemption, with increasing numbers of businesses launched their commercial site on the Internet, the utility of traditional physical couponing is challenged. Old-fashioned physical couponing reached its highest point in the 1990s. In 1992, the redemption of paper coupon totaled a 7.9 billion dollars’ discount. After that, the amount of redemptions went into decline (Tuttle, 2010).

Unlike people’s intuition that active coupon users might be consumers with weak economic power, a survey by Kang et al. (2006) discovered that coupon users actually have higher incomes and better educational backgrounds than non-coupon users. In the study, they also found that people living in urban areas are more likely to be consistent heavy users of physical paper coupons, rather than consumers from rural areas.

In an earlier study of physical paper coupons, Dodson (1977) found that when consumers were offered incentives like discounting deals during shopping, brand switching was likely to happen. Kang et al. (2006), from the other side, demonstrated that people with strong brand preferences are likely to be light coupon users. As a result, it can be interpreted that brand lovers are less likely to be affected by coupons when making purchase decisions, while consumers with lighter brand loyalty are more likely to buy products that provide coupon deals. A study by Anderson and Sharp (2012) showed
that younger consumers are less likely to have settled brand preferences. Therefore, it can be inferred that young consumers are more likely to be heavy coupon users.

Based on data collected from a panel study, Dodson (1977) applied the economics utilities theory and the self-perception theory in psychology to explain consumers’ brand loyalty changes when stimulated by coupons and deals. The self-perception theory predicts that the presence of a strong constraint, such as a good deal, will lead a person to conclude that he or she is performing the behavior solely for the reward (Aronson, Akert & Wilson, 2006). In Dodson’s study, the self-perception theory predicts that when coupon deal is retracted from consumers who have switched brands for taking advantage of coupon deal, consumers will have less motivation to repurchase the previously couponed brand. Results show that after consumers are stimulated with media distributed coupons, they are more likely to switch brands and therefore results in less brand loyalty. However, if stimulated with a packaged coupon (coupons contained in the product packages), more brand loyalty will occur with consumers.

Despite the fact that there are different types of Internet coupons, this study is narrowed to focus on the college student consumers in the scenario of searching for e-coupons when they are making a payment on an online shopping website. Because the cost of searching and collecting e-coupons is considerably lower than traditional coupons (Kang et al., 2006), it’s much easier for online consumers to find the coupon they need than to collect coupon from newspaper or magazine. As a result, the major difference between searchable e-coupons and traditional paper coupons is that consumers become the active hunter for e-coupons to fulfill the desire for deals, rather than passive receiver of coupon messages in the traditional way (Kang et al., 2006).
Kang et al. (2006) proposed to find out the psychological explanations behind consumers’ searching behavior for e-coupons as their role has been shifted from passive coupon receiver to active coupon collector. Two theories created by Ajzen (1991) were tested in their study: the theory of reasoned action and the *Theory Of Planned Behavior*. The basic structures of the two theories are similar: attitudes towards behavior\(^1\) and subjective norm\(^2\) are considered two variables that lead to people’s behavioral intention\(^3\). And then behavior intention can lead to actual behavior. The theory of reasoned action predicts that a person considers benefits and costs of conducting certain behaviors before choosing the behavior that brings the most beneficial outcome (Fishbein & Ajzen, 1975). However, in the *Theory Of Planned Behavior*, one more variable is considered—perceived behavior control, which is defined as the “resources and opportunities available to a person much to some extent dictate the likelihood of behavioral achievement,” in other words, people’s perception of the ease or difficulty of achieving a certain behavior (Ajzen, 1991).

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\(^1\) “The sum of beliefs about a particular behavior weighted by evaluations of these beliefs” (Miller, 2005).

\(^2\) “Looks at the influence of people in one's social environment on his behavioral intentions; the beliefs of people, weighted by the importance one attributes to each of their opinions, will influence one's behavioral intention” (Miller, 2005).

\(^3\) “a function of both attitudes toward a behavior and subjective norms toward that behavior, which has been found to predict actual behavior” (Miller, 2005).
By interpreting their test results, Kang et al. (2006) found that the theory of reasoned action can explain traditional coupon redemption behavior. However, the theory of planned behavior can better explain consumers’ searching behavior of e-coupons online, because it was discovered that consumers’ past behavior of coupon redemption is significantly correlated to people’s intention for e-coupon redemption. In their study, the consumers’ past experience of physical coupon redemption was measured as the perceived behavior control. In 2012, Muk conducted a survey collecting data from college students in the United States, Korea and Taiwan to study their behavior of mobile
coupon redemption. Results indicate that in the United States, students’ acceptance of mobile coupon was positively influenced by perceived behavioral control and brand value, which supported Kang et al.’s proposal of applying the theory of planned behavior to predicting consumer’s coupon redemption behavior (2012).

In the e-coupon searching scenario, various factors can influence consumers’ perception of ease to achieve the success of finding a redeemable coupon online (perceived behavioral control), including the situation consumers’ are faced with, for example, of lower monetary and opportunity costs required to collect coupons on the Internet as opposed to the traditional way, or past experiences consumers have, for example, of their previous success in physical coupons (Kang et al., 2006). By conducting e-coupon searches, consumers have similar controls over the ease of searching: they all have computers or mobile devices and Internet access. However, consumers’ past experiences can be different: some consumers may be light users of physical coupons, some may be heavier users; some may have experience in e-coupon redemption, some may not.

According to the theory of planned behavior, attitude toward the behavior and perceived behavior control are interconnected. Past successful experience that created positive attitudes toward behavior will also strengthen their perceived behavior control. Therefore, based on previous studies of traditional coupon collecting behavior and attitude, studies of e-coupon redemption and its application of the theory of planned behavior, it can be deduced that consumers with previous successful e-coupon searching and redemption experience in a brand may have a stronger perceive behavior control to the e-coupon searching behavior, and the stronger perceived behavior control therefore
leads to a stronger behavioral intention to do the e-coupon searching for his/her future online shopping in the same brand. To study the possibility, the first hypothesis is proposed:

H1: E-coupon search intention for a brand with previously successful e-coupon experience is positively associated with perceived behavior control for e-coupon search.

In the first hypothesis, the variable “brand with previous successful e-coupon experience” is defined as college consumers’ successful experience in searching and applying e-coupons when they are checking out their shopping cart for e-commerce site for specific brand. For example, one student may have searched key words “H&M coupons” on Google before filling out the “coupon code or promo code” section of his/her check out page when purchasing apparel product from H&M.com. If the student found and applied the coupon successfully, and got some money off for his or her purchase, the students is defined as having previously successful experience in the H&M brand. Another variable “perceived behavior control for e-coupon search” is defined as college consumers’ perceived ease of conducting e-coupon search for online shopping purpose, which is also aligned with the definition by Kang et. al (2006). For example, college consumer with higher perceived behavior control may consider that searching for redeemable e-coupon for online shopping is easy, however, college consumers with lower perceived behavior control may think in the opposite way.

Alberto and Troutman (2009) in their book “Applied Behavior Analysis For Teachers,” described a behavioral phenomenon called Behavior Generalization. In their book, Behavior Generalization is defined as “the expansion of a student's performance ability beyond the initial conditions set for acquisition of a skill,” which means that
students can expand their skills learnt in one scenario to a related but different scenario where they don't have experience before. Osnes and Lieblein (2003) in their study about the behavior generalization offered an example: if a student has successfully mastered learning colors at the table, the teacher may take the student around the house or his school and then generalize the skill in a more natural environments with other materials.

In the e-coupon searching scenario, consumers are the teacher themselves, or may be influenced by someone who knows how to search e-coupon for online shopping purposes. After the e-coupon searching skill is acquired, they may also apply the same behavior when shopping for product categories they don’t have e-coupon experiences with. Therefore, the phenomenon of Behavior Generalization may also be applied to describe the e-coupon searching scenario. Based on that, it can also be inferred that the consumer has the experience of searching and redeeming e-coupons for one brand, may also tend to search e-coupons for other product categories. Therefore, the first hypothesis can be generalized and adapted to the overall e-coupon searching behavior intention study. The second hypothesis is proposed to demonstrate the deduction:

**H2: E-coupon search intention for a brand with previously successful e-coupon experience is positively associated with e-coupon search intention in general.**

Following this deduction, the third hypothesis is proposed to find out the relationship between a college student consumer’s perceived behavior control for e-coupon search and their behavioral intention to search e-coupon in general for their online shopping purpose.

**H3: Perceived behavior control for e-coupon searching is positively associated with general e-coupon search intention.**
Swaminathan and Bawa (2005) in their study of consumers’ traditional coupon proneness and their redemption intention discovered that category-specific measures of propensity to redeem coupons achieve an average accuracy of 89 percent in predicting redemption intentions. In other words, consumers’ intention of using a coupon varies based on what category they are making the purchase. Based on this discovery, consumers’ intention of searching and redeeming e-coupons should also been studies category by category.

Products in different categories have different levels of connection with consumers’ emotion when they are making purchase decision. Antil (1984) in his study summarized other scholars’ previous discovers for the type of emotion and conceptualized it as the “product involvement level.” VonRiesen and Herndon (2011) later defined product involvement levels as a consumer’s personal issue that reflects his/her perceived importance or relevance of the product to the individual. By studying the relationship between consumers’ involvement level and product and their brand loyalty, VonRiesen and Herndon (2011) found that brand loyalty is more likely to be affiliated with high-involvement products. On the contrary, low product involvement levels are correlated to consumers’ less loyal attitudes toward brands. Srivastava(2007) in his study specified that the consumer group between ages 18 and 24 shows great difference in the degree of brand loyalty across different product categories. Figure 3 is the model VonRiesen and Herndon proposed to explain the path of how product involvement finally influence consumers’ brand loyalty.
Bawa and Shoemaker (1987) discovered that consumers with strong brand preference are likely to be light coupon users, which means that coupon usage and brand loyalty are negatively related variables. Therefore, from the positive correlation between brand loyalty and production involvement level, and the negative correlation between brand loyalty and coupon intention, it can be deduced that consumers’ coupon use intention is negatively related to the involvement level of the products they intend to buy. This conclusion based on studies of physical coupons may also be adapted to the study of e-coupons for college students. However, since the searching of an e-coupon is dramatically easier than searching for traditional coupons, the prediction may not be accurate because consumers may search for whatever coupons are available for searching. As a result, rather than making a hypothesis, the first research question was asked:

RQ1: *What is the relationship between product involvement levels and frequency of online e-coupon search?*

Consumer demographic differences may also impact their decision of conducting e-coupon searches. A study done by Anderson and Sharp (2010) discovered that
“younger consumers are less likely to have a settled brand preference.” Combine the finding to the conclusion drawn by Bawa and Shoemaker (1987), that a consumer’s frequency of coupon usage and their brand loyalty to the products they use coupon is a pair of negatively correlated variables, it can be interpreted that consumers in younger age are more likely to perform e-coupon searching behaviors than elder consumers. In the college, students are in their different ages. Although the age difference may not be large, students of different age may display different behaviors. For example, freshman students may behave close to high school students given the fact that they have just finished their three-year high school program and entered the college campus, everything in college is very new to them. However, senior year students may be different because they are more exposed to the college environments. Therefore, the age can be an important element that influences college students’ behavior. To study the possibility, the third hypothesis is proposed:

**H4: Behavioral intention for e-coupon search is negatively associated with age.**

In college, there may be other factors besides age that also can affect students’ e-coupon search behavior. These factors may include peer group influence, level of education, and expertise in Internet technologies. Based on that, it is argued that among college students, year of college may be a more relevant influencer of e-coupon search behavior than the age. Therefore, the second research question was asked:

**RQ2: What is the relationship between Behavioral intention for e-coupon search and year of college?**

Gender may also affect college students’ e-coupon searching intentions. Hill and Harmon (2009) in their study of traditional couponing found that males and females have
different perceptions toward using coupons as a method of bargaining for discounts. Focusing on the modern online shopping scenario, researchers found that the difference between males and females for their attitudes toward online shopping is not obvious. Ulbrich, Christensen, and Stankus (2011) in their study of gender and online shopping behaviors found there’s no significant difference between men and women in terms of online shopping proneness. Sebastianelli, Tamimi, and Rajan (2008) also found there’s no significant difference in a male’s or female’s perceived quality of shopping online. However, according to the discovery by Harmon and Hills (2009), male consumers used e-coupon less frequently than female consumers. Therefore, the academia doesn’t reach an agreement on whether males or females use e-coupons more frequently online. Also, male and female students in college use Internet in different ways. It was discovered by Jackson (2007) that male students use Internet as a source of entertainment, while female students use Internet for communicative and education purpose more frequently. Therefore, the fact that college students may use Internet differently base on their gender may also leads to the their different e-coupon search behavior. To find out the difference of male students and female students in terms of their online e-coupon search intentions, the third research question is proposed:

RQ3: What is the relationship between gender and e-coupon search behavior?
CHAPTER 3: METHOD AND RESULTS

This study is based on the online shopping scenario and is focused on consumers who have access to the Internet. According to the study by Weigold, Weigold, and Russell (2013), in most cases, test results from paper-based surveys are equivalent to test results from Internet-based surveys. Therefore, to test the hypotheses, an online survey is proposed to target the college student population with Internet access. A pretest survey questionnaire has been distributed in a college class to determine the top product categories that interest college students the most. The product categories concluded from the pretest also have helped narrow the questionnaire that was used in the real test. In the main test, a survey questionnaire has been developed to measure respondents’ demographic status, their perceived product involvement level in different product categories, their perceived behavioral control to e-coupon search behavior, and their behavioral intention to search for e-coupons for future online shopping. A total of 314 students enrolled in graduate and undergraduate classes at a mid-sized mid-western university took part in both the pretest (n = 63) and main study (n = 251) surveys.

According to Kang et al. (2006), coupon use frequency is positively associated with education level. Also, based on the consumer segmentation report collected by Miller and Washington (2013), 98% of US undergraduate student and 99% of US graduate student are online, whereas only 75% percent of adults in general are online. Moreover, Anderson and Sharp (2010) pointed out that younger consumers show lower brand loyalty level than average, which has lead to the second hypothesis. College student therefore can be expected to be an active group for e-coupon searching. Therefore,
the survey was designed to target college students who receive higher level of education, higher access rate to the Internet, and show lighter brand loyalty.

Pretest

Method

The main purpose of the pretest is to configure the product category list that was used in the main study. Limited literature provides example on how to categorize products based on the level of product involvement. Mark B. Taylor (1981) first studied the relationships between product involvement level and brand commitment. In the study, Taylor created a chart with product involvement score based on a set of product categories, together with related brand commitment score. The chart could be a great reference to help design the product category list in this study. However, it was out of date since his study was done three decades ago when online shopping was not even known by consumers at that time. Fader and Lodish (1990) conducted a study to find the correlation between products category structures and promotion activities. In their study, 331 product categories were allocated into four clusters based on the products’ frequency of coupon promotion activities. However, the four clusters they designed are too generic to serve the purpose of current study since brand involvement is based on specific decision complexity rather than the frequency of product promotions. In general, it’s hard to find supportive literature that can provide product category reference to be used in current study, and to measure involvement levels in each category. Therefore, a new product category chart was created to address this limitation.

The Top Ten Review.com (2013) offered rankings and review to Top10 online coupon sites and Top10 online deal sites in 2013. Based on customer review activeness,
four online coupon and deal sites are chosen as the reference to design the product categories for this study. 26 categories are created based on the existing categories on those sites. And amongst the 26 categories, 7 of them exist across the four sites (see Appendix A).

To find out the relationships between product involvement and the e-coupon search intention, each category will require the survey respondents to report their product involvement level. However, due to the limitation of the number of participants, 26 is a large number for each category to collect sufficient data, and test outcomes would therefore be too weak to reflect customer’s real choice in the real e-commercial world. Therefore, a pretest has been carried out in an undergraduate class in mid sized mid-western university to narrow down the product categories.

In the pretest, participants were asked to report their most online-shopped product categories, and the categories for which they find and use coupons most online. 63 students from an undergraduate class filled out an online questionnaire designed for the pretest (see Appendix B for pretest questionnaire).
Results

Majority of the respondents from the class were female (77%) students. Most were freshman (60.3%) students. Their major income sources were their family (44%) or student loan (20%). All of them had online shopping experience, and most of them (81%) had used e-coupon for online shopping. Table 1 summarizes the demographic information for all the respondents.

Table 1

<table>
<thead>
<tr>
<th>Summary of Demographic Information for Pretest</th>
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<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Age (YO)</td>
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<tr>
<td>Age (YO)</td>
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<tr>
<td>Year of College</td>
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<tr>
<td>Year of College</td>
</tr>
<tr>
<td>Source of Income</td>
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<td>Source of Income</td>
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To figure out the product categories for the main study, participants were asked to choose 5 of their most online-shopped categories out from the list with 26 product categories. Table 2 shows the distribution of the product categories of their choice in the descending order.

Table 2

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing</td>
<td>56</td>
<td>89%</td>
</tr>
<tr>
<td>Accessories</td>
<td>38</td>
<td>60%</td>
</tr>
<tr>
<td>Shoes</td>
<td>27</td>
<td>43%</td>
</tr>
<tr>
<td>Beauty</td>
<td>24</td>
<td>38%</td>
</tr>
<tr>
<td>Books, Movie &amp; Magazine</td>
<td>23</td>
<td>37%</td>
</tr>
<tr>
<td>Gifts</td>
<td>23</td>
<td>37%</td>
</tr>
<tr>
<td>Electronics</td>
<td>20</td>
<td>32%</td>
</tr>
<tr>
<td>Jewelry</td>
<td>20</td>
<td>32%</td>
</tr>
<tr>
<td>Computer</td>
<td>11</td>
<td>17%</td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>7</td>
<td>11%</td>
</tr>
<tr>
<td>Personal Care</td>
<td>7</td>
<td>11%</td>
</tr>
<tr>
<td>Sporting Goods</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>Toys &amp; Games</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>Travels</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>Automotive</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Flowers</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Furniture</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Health</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Photography</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Baby &amp; Toddlers</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Home &amp; Garden</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Musical Instrument</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Party Supplies</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Pets</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Nine most shopped categories were selected based on the test result and listed in the table 3. The top category list ensured that more respondents in the main test would have the category related shopping experience.

Table 3

*Most Online-Purchased Product Categories Ranked by Categories*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Product Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clothing</td>
<td>56</td>
<td>89%</td>
</tr>
<tr>
<td>2</td>
<td>Accessories</td>
<td>38</td>
<td>60%</td>
</tr>
<tr>
<td>3</td>
<td>Shoes</td>
<td>27</td>
<td>43%</td>
</tr>
<tr>
<td>4</td>
<td>Beauty</td>
<td>24</td>
<td>38%</td>
</tr>
<tr>
<td>5</td>
<td>Books, Movie &amp; Magazine</td>
<td>23</td>
<td>37%</td>
</tr>
<tr>
<td>6</td>
<td>Gifts</td>
<td>23</td>
<td>37%</td>
</tr>
<tr>
<td>7</td>
<td>Electronics</td>
<td>20</td>
<td>32%</td>
</tr>
<tr>
<td>8</td>
<td>Jewelry</td>
<td>20</td>
<td>32%</td>
</tr>
<tr>
<td>9</td>
<td>Computer</td>
<td>11</td>
<td>17%</td>
</tr>
</tbody>
</table>
A comparison between the list of most shopped product categories and the list of categories with the highest degree of e-coupon redemption experience was made in table 4. It shows that three categories (books, movie & magazine, gift, and electronics) have different rankings in the frequency of online shopping and the frequency of e-coupon searching. Aside of the small change of places, these two ranks are mostly identical.

<table>
<thead>
<tr>
<th>Top shopped categories</th>
<th>Percentage of Respondents</th>
<th>Top product categories for e-coupon redemption</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing</td>
<td>89%</td>
<td>Clothing</td>
<td>71%</td>
</tr>
<tr>
<td>Accessories</td>
<td>60%</td>
<td>Accessories</td>
<td>43%</td>
</tr>
<tr>
<td>Shoes</td>
<td>43%</td>
<td>Shoes</td>
<td>35%</td>
</tr>
<tr>
<td>Beauty</td>
<td>38%</td>
<td>Beauty</td>
<td>27%</td>
</tr>
<tr>
<td>Books, Movie &amp; Magazine</td>
<td>37%</td>
<td>Gifts</td>
<td>24%</td>
</tr>
<tr>
<td>Gifts</td>
<td>37%</td>
<td>Books, Movie &amp; Magazine</td>
<td>22%</td>
</tr>
<tr>
<td>Electronics</td>
<td>32%</td>
<td>Jewelry</td>
<td>21%</td>
</tr>
<tr>
<td>Jewelry</td>
<td>32%</td>
<td>Electronics</td>
<td>14%</td>
</tr>
<tr>
<td>Computer</td>
<td>17%</td>
<td>Personal Care</td>
<td>10%</td>
</tr>
</tbody>
</table>

Main Study

Method

Multiple variables were measured in the main test. Independent variables include: respondent’s perceived behavior control to the e-coupon searching behavior (PBC), respondent’s perceived product involvement level (PIL), respondent’s age, gender, year of college, and source of income. Dependent variables include: college student
consumers’ e-coupon search intention for the brands with previous successful e-coupon experience (INT-1); and college student consumers’ e-coupon search intention for general online shopping purpose (INT-2).

According to Ajzen (2002), perceived behavior control (PBC) is composed by two major factors: the strength of each control belief, and the perceived power of the control factors. To measure the value of the two factors, participants’ past e-coupon searching behavior was measured by referring to the example from Kang et al. (2006). Questions were asked to assess participants past e-coupon use and access, arranged on seven-point scales (1 = strongly agree; 7 = strongly disagree).

The value of perceived behavior control (PBC) was computed by taking the average score from the above questions. Table 5 shows all the items that were used to measure perceived behavior control.

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Compute of Perceived Behavior Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Behavior Control (PBC) contains:</td>
<td>Survey questions:</td>
</tr>
<tr>
<td>Elements:</td>
<td>The Strength Of Each Control Belief</td>
</tr>
<tr>
<td>PBC-1</td>
<td>It takes little time to find a coupon I need to shop online.</td>
</tr>
<tr>
<td>PBC-3</td>
<td>It’s convenient to search for e-coupons on the Internet.</td>
</tr>
<tr>
<td>PBC-5</td>
<td>There are few obstacles for me to redeem the e-coupons I find for online shopping.</td>
</tr>
<tr>
<td></td>
<td>The Perceived Power Of The Control Factors</td>
</tr>
<tr>
<td>PBC-2</td>
<td>Whenever I want certain coupons to shop online, I can find them on the Internet.</td>
</tr>
<tr>
<td>PBC-4</td>
<td>As long as the coupon I need is on the Internet, it is always easy for me to find it.</td>
</tr>
</tbody>
</table>
To measure consumers’ perceived product involvement level (PBC), respondents were asked to respond to a seven-point scale for each product category (1 = strongly agree; 7 = strongly disagree). The following statement was modified to create the survey items for each product category: “I spend a lot of time searching for information in *category name* before I made purchase decision.”

To measure college student consumers’ behavioral intention to search for e-coupons in their future online shopping in the selected product categories, responses were measured on a seven-point scale (1 = strongly agree, 7 = strongly disagree):

- I will search for e-coupon for my next online shopping on the brand I previously succeeded in coupon redemption.
- I will search for e-coupon for my next online shopping for whatever product and brand I probably will buy.

The first question was used to evaluate participant’s behavioral intention of doing e-coupon search in his/her future online shopping in the same brand s/he has e-coupon redemption experience with (INT-1). The second question was used to evaluate participant’s extended behavioral intention of doing e-coupon searching for their future online shopping in general (INT-2).

To test all the hypotheses and research questions in the main study, a survey was carried out at a mid sized mid-western university. Participants were students from both undergraduate school and graduate school. 251 students filled out an online survey questionnaire (see Appendix C for main study questionnaire).
Main Study Results

Majority (75%) of the respondents were female students with financial support from their family or student loan. Most (18.7%) participants were 19 years old. Almost all (98%) of them had online shopping experience, and more than half (58%) had used e-coupon for online shopping purpose. Table 6 summarizes the demographic information for all the respondents who participated in the main test.
| Table 6  
<p>| Summary of Demographic Information for Main Test |</p>
<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>63 (25%)</td>
<td>187 (75%)</td>
</tr>
<tr>
<td>Age (YO)</td>
<td>Mean</td>
<td>Mode</td>
</tr>
<tr>
<td>Age (YO)</td>
<td>20.9</td>
<td>19 (18.7%)</td>
</tr>
<tr>
<td>Year of College</td>
<td>Freshman</td>
<td>Sophomore</td>
</tr>
<tr>
<td>Percentage</td>
<td>59 (23.5%)</td>
<td>53 (21.1%)</td>
</tr>
</tbody>
</table>
Gender based asymmetry was observed in e-coupon experience for online shopping (Table 7). Higher percentage (66.85%) of female respondents has e-coupon experience for online shopping purpose than male respondents (31.25%).

Table 7
*Crosstab of Gender and e-coupon Experience*

<table>
<thead>
<tr>
<th>E-coupon experience for online shopping</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>No</td>
<td>62 (33.15%)</td>
<td>43 (67.19%)</td>
</tr>
<tr>
<td>Yes</td>
<td>125 (66.85%)</td>
<td>20 (31.25%)</td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>64</td>
</tr>
</tbody>
</table>
H1: *E-coupon search intention for a brand with previously successful e-coupon experience is positively associated to perceived behavior control for e-coupon searching.*

Pearson’s correlation was calculated between the variable PBC and variable INT-1 to test the first hypothesis. Perceived behavior control is positively correlated to e-coupon search intention for brands with previous successful e-coupon experience, \( r(145) = .605, p < .01 \). Therefore, the first hypothesis is supported (Table 8).

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Correlations Between PBC and INT-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Perceived Behavior Control</td>
</tr>
<tr>
<td></td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Perceived Behavior Control</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>E-Coupon Search Intention For Brands With Previous Successful E-Coupon Experience</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
H2: *E-coupon search intention for a brand with previously successful e-coupon experience is positively associated with e-coupon search intention in general.*

Pearson’s Correlation was calculated between the variable INT-1 and variable INT-2 to test the first hypothesis. General e-coupon search intention is positively correlated to e-coupon search intention for brands with previous successful e-coupon experience, $r(145) = .813, p < .01$. Therefore, the second hypothesis is supported (Table 9).

<table>
<thead>
<tr>
<th></th>
<th>E-Coupon Search Intention For Brands With Previous Successful E-Coupon Experience</th>
<th>General E-coupon Searching Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Coupon Search Intention For Brands With Previous Successful E-Coupon Experience</td>
<td>Pearson Correlation: 1, Sig. (2-tailed): .813**</td>
<td>Pearson Correlation: .813**, Sig. (2-tailed): .000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

H3: *Perceived behavior control for e-coupon searching is positively associated to general e-coupon search intention.*

Pearson’s Correlation was calculated between the variable INT-2 and variable PBC to test the second hypothesis. General e-coupon search intention is positively correlated to e-coupon search intention for brands with previous successful e-coupon experience.
experience, \( r (145) = .645, p < .01 \). Therefore, the third hypothesis is supported (Table 10).

Table 10
*Correlations Between PBC and INT-2*

<table>
<thead>
<tr>
<th>Perceived Behavior Control</th>
<th>Correlation</th>
<th>General E-coupon Searching Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.645**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>145</td>
<td>145</td>
</tr>
<tr>
<td>General E-coupon Searching Intention</td>
<td>Pearson Correlation</td>
<td>.645**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>145</td>
<td>145</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

RQ1: *What is the relationship between product involvement levels and frequency of online e-coupon search?*

To test the first research question, two groups were created to consolidate the value of product involvement levels in most and least e-coupon-searched product categories. Based on the frequency of participants e-coupon searching, product involvement levels in three most e-coupon-searched product categories were selected, combined, and consolidated to a new group called high frequent categories (HFC). Using the same methodology, the product group of low frequent categories (LFC) was created by combing the three least frequently e-coupon-searched product categories (see Table 11 for categories).
Table 11
*Top Shopped Product Category Ordered By Respondent’s Frequency Of E-Coupon Search*

<table>
<thead>
<tr>
<th>Name of Product Category</th>
<th>Percentage of respondent’s e-coupon search</th>
<th>Product Involvement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books, Movie &amp; Magazine</td>
<td>71%</td>
<td>3.58</td>
</tr>
<tr>
<td>Accessories</td>
<td>43%</td>
<td>3.68</td>
</tr>
<tr>
<td>Electronics</td>
<td>35%</td>
<td>2.88</td>
</tr>
<tr>
<td>Clothing</td>
<td>27%</td>
<td>3.34</td>
</tr>
<tr>
<td>Gifts</td>
<td>24%</td>
<td>3.17</td>
</tr>
<tr>
<td>Shoes</td>
<td>22%</td>
<td>3.14</td>
</tr>
<tr>
<td>Beauty</td>
<td>21%</td>
<td>3.88</td>
</tr>
<tr>
<td>Jewelry</td>
<td>14%</td>
<td>3.57</td>
</tr>
<tr>
<td>Computer</td>
<td>6%</td>
<td>2.86</td>
</tr>
</tbody>
</table>

T-test between HFC and LFC was conducted to find out the difference of product involvement level in high frequency e-coupon use product category group and low frequency e-coupon use product category group. No significant difference was found, $t(143) = -.556, p = .579$.

Also, results shows that product involvement level in high frequency e-coupon use product category group and low frequency e-coupon use product category group is positively correlated, $r = .696, p < .01$. Therefore, to answer the first research question, there’s no significant different between the product involvement level in h frequency e-coupon use product category group and low frequency e-coupon use product category group.

**H4: Behavioral intention for e-coupon search is negatively associated to age.**

Correlation between respondents’ age and general e-coupon search intention was conducted to test H4 (Table 12). Of all the responds that have online shopping experience, 10 respondents didn’t report their age. Therefore, only 139 cases were used to test the
correlation. Since in the survey questionnaire, stronger behavioral intention was measured with a smaller Likert scale score, and based on the fact that the Pearson’s correlation value between age and intention is positive, $r (139) = .161, p = .059$, it can be interpreted that the behavioral intention of e-coupon search is negatively associated with age. However, since the correlation is weak, and is not significant at a level that is commonly accepted, it can be decided that the data analysis result does not support the fourth hypothesis.

Table 12

<table>
<thead>
<tr>
<th>Correlations between age and General E-Coupon Search Intention</th>
<th>General E-Coupon Search Intention</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>General E-Coupon Search Intention</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>139</td>
</tr>
<tr>
<td>Age</td>
<td>Pearson Correlation</td>
<td>.161</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.059</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>139</td>
</tr>
</tbody>
</table>

RQ2: What is the relationship between Behavioral intention for e-coupon search and year of college?

Correlation between respondents’ year of college and general e-coupon search intention was conducted to test RQ2 (Table 13). There is no significant correlation between the two variables, $r (149) = .112, p = .145$. Therefore, to answer the second research question, there’s no relationship between year of college and general e-coupon search intention.
Table 13

<table>
<thead>
<tr>
<th></th>
<th>INT-2</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>General E-Coupon</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Searching Intention</td>
<td>Sig. (2-tailed)</td>
<td>.145</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>145</td>
</tr>
<tr>
<td>Year of College</td>
<td>Pearson Correlation</td>
<td>.122</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.145</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>145</td>
</tr>
</tbody>
</table>

RQ3: What is the relationship between gender and e-coupon search behavior?

A T-test was done to measure the difference for the general e-coupon search behavioral intention between male and female college students. No significant difference was found for general e-coupon search intention, $t(145) = -1.44, p = .573$. Therefore, there is no significant difference between male and female for the general e-coupon search intention.
CHAPTER 4: DISCUSSION

There are three major purposes for this study: first, to apply the theory of planned behavior to study college students’ behavioral intention when searching for e-coupons; second, to find out whether product involvement is a key factor that affects college students’ decision of conducting e-coupon search for online shopping purposes; third, to find out whether college students’ age and gender affect their behavioral intention to conduct e-coupon search for online shopping purposes.

To associate the study of college students’ e-coupon searching behavior intention with the theory of planned behavior three hypotheses were made. The supportive results demonstrated that:

First, it was discovered that college students’ perceived behavior control for conducting e-coupon search is positively associated with their intention of doing the e-coupon search for the brands with previous successful e-coupon experience. It indicates that perceived behavior control may be an important factor that affects college students’ search intention. It is consistent with the study done by Kang et al. (2006).

Second, the behavior generalization mechanism (Alberto and Troutman, 2009; Osnes and Lieblein, 2003) can be used as an explanation in the college students’ e-coupon search scenario. It can be inferred that consumers with successful e-coupon searching and redemption experience in one brand may also have a stronger behavioral belief toward e-coupon search for other product brands or categories, and therefore, a stronger intention for e-coupon search behavior in general categories.

Third, it was discovered that college students’ perceived behavior control for conducting e-coupon search is positively associated with their intention of doing the e-
coupon search in general product categories. It indicates that the theory of planned behavior not only can explain college students’ e-coupon search intention for the brands they have previous successful experience with, but also can be extended to explain the behavioral intention for general online shopping purpose.

This study also intended to link the concept of product involvement level to the theory of planned behavior when studying into college students’ different e-coupon search intention for different product categories. Results from data analysis didn’t find support for the linkage. No significant difference for e-coupon search behavior in high-involvement level product groups and low-involvement groups was found. Therefore, the model created by VonRiesen and Herndon (2011) that explained the path of how product involvement level affects consumer brand loyalty cannot be further applied to this study to explain how e-coupon searching behavior can be associated with brand loyalty.

There are various reasons to explain why no relationship can be found between the product involvement level and e-coupon searching intention. One very important factor is that most participants from the pretest were female students. They have strong preference to shop in categories like fashion and beauty. It results in a product category list that is more female oriented than generally applicable. It might have resulted to the situation in which male respondents for this study cannot recall real experience for whether e-coupon searching or perceived product involvement level in those female oriented categories.

One other reason might be the limitation of income for college students. Reported by all the respondents, the majority affords college spending by family support (44%) or student loans (20%). Only small portion have income from an on-campus (7%) and off-
campus job (12%). And college students’ work both on and off campus can be paid very low. Therefore, it can be imagined that most of them cannot afford very expensive products. However, high-involvement level products are mostly expensive products according to Lastovicka and Gardner (1978). It resulted to the fact that only limited product categories chosen from the pretest were high involvement level products (computer and electronics).

Furthermore, tests to find out the correlation between general e-coupon search intention and college students’ demographic difference had been conducted, but results didn’t show significant correlation or difference. First, it was shown that age is not a variable that has significant influence on college students’ e-coupon search intention for general online shopping purpose. Year of college also is not a variable that affect students’ e-coupon searching behavior intention. It can be explained by the limitation of students’ source of income. College students have limited economic power to purchase very expensive products. Therefore, their e-coupon search behavior may be limited to low price product categories. As a result, this college student focused study cannot support the interpretation from literature review that younger consumers are more likely to perform e-coupon searches than the elderly.

The limitation of income source also affected the result of another research question. It was discovered that gender does not play a role in college students’ e-coupon searching behavior intention. Since both male or female college students generally lack sufficient income to purchase expensive products, they all therefore end up using coupons as long as they are available. The results is consistent with the Ulbrich et al. (2011) finding that male and female shows similar behavior pattern for online shopping.
However, it differs from the study results based on general population that Karmon and Hill (2003) conducted, which shows that males are less frequent e-coupon users.

Implication

Managerial Implication

This study can be implied to the real coupon-marketing scenario from several aspects:

Since it is verified by this study that stronger perceived behavior control can lead to stronger intention of conducting e-coupon searches, it is critical to the e-coupon industry to strengthen the perceived behavior control of e-coupon search for their target audiences. Also, for marketers, higher e-coupon usage by consumers means better sales performance and lower logistic cost. To increase the e-coupon search and redeeming rate, one suggestion is that marketers may consider making the e-coupon searching looks easier for consumers to achieve when they are designing e-coupon campaigns. For instance, when consumers are searching for certain keywords randomly, an e-coupon that offers the discount information for the keyword-related product can be popped up by the side of consumers’ searching result.

Also, whether e-coupons are easily reached by consumers is one important thing for marketers to study. Whether consumers perceive it as easy to find e-coupon is another important thing to be considered. Based on the survey result that 42% respondents from this study don’t even have e-coupon searching experience, and given the fact that they are in the college student group whose knowledge of computer and Internet operation are higher than the average (Miller & Washington, 2013), it may be a good idea for marketers to launch an e-coupon search educational campaign to raise the awareness of e-
coupon using, and most importantly, in order to encourage consumers’ e-coupon searching intention, marketers in their e-coupon education campaign should convey the message that searching for e-coupons to get money off is a very easy task to achieve. By doing so, marketers can save budget for physical coupon production and distribution.

Furthermore, since the age, year of college, and gender are not important factors that affect college students’ e-coupon searching intention, marketers for low-involvement level products can save time and money on developing e-coupon campaigns ideas that amplify the age difference or gender difference, because it may not work for college student audiences.

In future studies if the relationship between product involvement level and e-coupon searching behavioral intention is discovered it can be implied to the marketing world that the Internet has dramatically facilitated the distribution and collection of coupons and that the redemption of e-coupon has become extremely easy compared with physical paper coupons. However, more coupons mean less brand loyalty for low-involvement products. Luckily, Rossiter and Bellman find that emotional advertising campaign can tighten consumers’ tie to brands (2012). Therefore, brands for low-involvement products should run more emotional branding advertising campaigns to bond consumers closely to the brand.

Second, because consumers tend to switch brands when purchasing low-involvement products if stimulated by e-coupon, brands in low-involvement products categories can place emotional branding advertisements on the coupon-searching page to maintain and reinforce consumer’s brand loyalty. For example, Coca-Cola can place ads at the Google searching results page if consumer searched for key words like “Pepsi +
coupon”. By seeing that, Coco-Cola lovers may remind themselves that they should stay loyal to the brand.

Implications for future research

Future studies on online e-coupon use behavior can consider including the mechanism of behavior generalization to find out how consumers’ e-coupon behavior in a specific niche will be expanded to other categories.

Longitude study could also be done to track college students’ online e-coupon behavior after they graduate since they may have stronger economic power to afford expensive product categories after they start to work.

Study can also been done to find how social media can expose college students to coupon information in a more efficient way, and how the exposure affect their e-coupon search behavior.

Limitations

There are two major limitations for this study:

Firstly, the samples’ gender was not evenly distributed across the sample. In the pretest, subjects were 77% of female and 21% of male. The large percentage of females directly influenced the selection of product category list that was used in the main study. As a result it may be shown that male participants have limited category options to truly report their product involvement level and e-coupon searching intention.

Secondly, due to the fact that all the samples were from the same school at a mid sized middle western university, they may have similar shopping experience. Since the campus of this university is located in remote rural area and far away from big cities, the proneness of online shopping maybe higher than college students who study in urban area.
Therefore, there is a possibility that students from this university better know how to shop online with e-coupon. However, this factor was not measured in the study.
REFERENCES


http://people.umass.edu/aizen/pdf/tpb.measurement.pdf


### APPENDIX A. PRODUCT CATEGORIES BASED ON COUPON/DEAL SITE’S CATEGORIES

<table>
<thead>
<tr>
<th>Website</th>
<th>Accessories</th>
<th>Automotive</th>
<th>Baby &amp; Toddlers</th>
<th>Beauty</th>
<th>Books, Movie &amp; Magazine</th>
<th>Computer</th>
<th>Clothing</th>
<th>Electronics</th>
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<thead>
<tr>
<th>Website</th>
<th>Flowers</th>
<th>Food &amp; Beverage</th>
<th>Furniture</th>
<th>Gifts</th>
<th>Home &amp; Garden</th>
<th>Jewelry</th>
<th>Musical Instrument</th>
<th>Health</th>
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<th>Personal Care</th>
<th>Pets</th>
<th>Photography</th>
<th>Shoes</th>
<th>Sporting Goods</th>
<th>Toys &amp; Games</th>
<th>Travels</th>
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APPENDIX B. PRETEST SURVEY QUESTIONNAIRE

College Student Online Shopping Questionnaire

Ohio University Consent Form

Title of Research:

College Students’ E-Coupon Search Behavior: A Theory of Planned Behavior Perspective

Researcher:

Yifu Lu, Graduate Student, E.W. Scripps School of Journalism, Ohio University

Faculty advisor:

Dr. Jatin Srivastava, Assistant Professor, E.W. Scripps School of Journalism, Ohio University

You are being asked to participate in research through Ohio University. For you to be able to decide whether you want to participate in this project, you should understand what the project is about, as well as the possible risks and benefits in order to make an informed decision. This process is known as informed consent. This form describes the purpose, procedures, possible benefits, and risks. It also explains how your personal information will be used and protected. Once you have read this form and your questions about the study are answered, you will be asked to participate in this study.

Completion and return of this survey implies your consent to use of data for research purposes.
Explanation of Study:

This study is being done to study online shopping behavior of college students. Findings from the study may help understand online shopping behavior better, which may be helpful in developing effective products and services.

The study involves you completing an online survey. Your participation in the study will last 5 to 10 minutes.

You should not participate in this study if you are less than 18 year old. Since participation in this study is voluntary, you may choose to leave any survey questions blank or stop at any time.

Risks and Discomforts:

No risks or discomforts are anticipated.

Confidentiality and Records:

You will be asked to provide your name and class you are getting extra credit for in the survey in order to give you the extra credit. This information will be replaced with reference numbers once we make a list for granting extra credit. Once the extra credit lists are generated, all information connecting you to your responses (your name and class) will be destroyed.
Additionally, while every effort will be made to keep your study-related information confidential, there may be circumstances where this information must be shared with:

* Federal agencies, for example the Office of Human Research Protections, whose responsibility is to protect human subjects in research;

* Representatives of Ohio University (OU), including the Institutional Review Board, a committee that oversees the research at OU.

Compensation:

As a participant, you will receive extra course credit for participating in the research study.

If you do not want to take part in the survey, you can still get the same amount of course credit by writing a single-spaced, one page essay on why people may or may not use online coupons.

Contact Information:

If you have any questions regarding this study, please contact Yifu Lu at 917.930.1128 and yl739311@ohio.edu, or, Dr. Jatin Srivastava at 740.593.2675 and srivastj@ohio.edu.

If you have any questions regarding your rights as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, (740)593-0664.

By agreeing to participate in this study, you are agreeing that:

• you have read this consent form (or it has been read to you) and have been given the opportunity to ask questions and have them answered
• you have been informed of potential risks and they have been explained to your satisfaction.
• you understand Ohio University has no funds set aside for any injuries you might receive as a result of participating in this study
• you are 18 years of age or older
• your participation in this research is completely voluntary
• you may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you and you will not lose any benefits to which you are otherwise entitled.
Demographic Information

1. What is your gender?
   - Male
   - Female,
   - Other

2. What is your age?
   
   Please response in Arabic Numbers, e.g., if you are 21 years old, type in 21.

3. This is your ( ) year of college.
   - Freshman
   - Sophomore
   - Junior Senior
   - 1st year of Graduate
   - 2nd year of Graduate
   - 3rd year of Graduate
   - 4th year of Graduate
   - 5th year of Graduate

4. What is your income source for spending during college?
   
   This is a multiple-choice question, you can choose more than one answers. Check all that apply.
   - Student Loan
   - Scholarships and Stipends
   - Work on Campus
   - Work off Campus
   - Support from family
   - Other funding
5. Do you have online shopping experience?
   o Yes
   o No

6. Generally speaking, do you enjoy shopping online?
   I hate shopping online
   o 1
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7
   I love shopping online

Product involvement

7. In the options provided below, check 5 of your most frequently used product categories for online shopping.
   o Accessories
   o Automotive
   o Baby & Toddlers
   o Beauty
   o Books, Movie & Magazine
   o Computer
   o Clothing
   o Electronics
   o Flowers
   o Food & Beverage
   o Furniture
Online coupon using

8. Have you ever used online coupons for shopping online?
   
   *Online coupon refers to coupon that you can find online before checkout your shopping cart.*
   
   o Yes
   o No

9. Check all the categories from the list below for which you have used online coupons in the past.
   
   o Accessories
   o Automotive
   o Baby & Toddlers
   o Beauty
   o Books, Movie & Magazine
   o Computer
   o Clothing
Participant's information

You will be asked to provide your name and class you are getting extra credit for in the survey in order to give you the extra credit. This information will be replaced with reference numbers once we make a list for granting extra credit. Once the extra credit lists are generated, all information connecting you to your responses (your name and class) will be destroyed.

10. Provide your name in the below box.

    First name and last name

11. Provide the class name you take to participate the survey.

    xxx University, full class name (class number)
Thank you!

*Thank you very much for your participation. Please click "continue" to submit your form.*
APPENDIX C. MAIN STUDY QUESTIONNAIRE

College Student Online Shopping Questionnaire

Ohio University Consent Form

Title of Research:

College Students’ E-Coupon Search Behavior: A Theory of Planned Behavior Perspective

Researcher:

Yifu Lu, Graduate Student, E.W. Scripps School of Journalism, Ohio University

Faculty advisor:

Dr. Jatin Srivastava, Assistant Professor, E.W. Scripps School of Journalism, Ohio University

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• you understand Ohio University has no funds set aside for any injuries you might receive as a result of participating in this study
• you are 18 years of age or older
• your participation in this research is completely voluntary
• you may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you and you will not lose any benefits to which you are otherwise entitled.
Demographic Information

12. What is your gender?
   o Male
   o Female,
   o Other

13. What is your age?
   Please response in Arabic Numbers, e.g., if you are 21 years old, type in 21.

14. This is your ( ) year of college.
   o Freshman
   o Sophomore
   o Junior Senior
   o 1st year of Graduate
   o 2nd year of Graduate
   o 3rd year of Graduate
   o 4th year of Graduate
   o 5th year of Graduate

15. What is your income source for spending during college?
   This is a multiple-choice question, you can choose more than one answers. Check all that apply.
   o Student Loan
   o Scholarships and Stipends
   o Work on Campus
   o Work off Campus
   o Support from family
   o Other funding
16. Do you have online shopping experience?
   o Yes
   o No

17. Generally speaking, do you enjoy shopping online?
   I hate shopping online
   o 1
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7
   I love shopping online

18. Do you have e-coupon searching experience during online shopping?
   e.g., search for promo code and enter at your shopping's checkout page.
   o Yes
   o No

Product involvement- main study

**Direction:** Based your online shopping experience, please indicate a number from 1 to 7 for the series of statements below, depending on the degree to which you agree or disagree with the statement.

19. Clothing
   
   *I spend a lot of time searching for information in this category before I made purchase decision.*
   
   Strongly Agree
   o 1
20. Accessories

_I spend a lot of time searching for information in this category before I made purchase decision._

Strongly Agree

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Strongly disagree

21. Shoes

_I spend a lot of time searching for information in this category before I made purchase decision._

Strongly Agree

- 1
- 2
- 3
- 4
- 5
22. Gifts

*I spend a lot of time searching for information in this category before I made purchase decision.*

Strongly Agree

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Strongly disagree

23. Beauty

*I spend a lot of time searching for information in this category before I made purchase decision.*

Strongly Agree

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Strongly disagree
24. Books, Movie, and Magazines

*I spend a lot of time searching for information in this category before I made purchase decision.*

**Strongly Agree**
- 1
- 2
- 3
- 4
- 5
- 6
- 7

**Strongly disagree**

25. Electronics

*I spend a lot of time searching for information in this category before I made purchase decision.*

**Strongly Agree**
- 1
- 2
- 3
- 4
- 5
- 6
- 7

**Strongly disagree**

26. Jewelry

*I spend a lot of time searching for information in this category before I made purchase decision.*

**Strongly Agree**
27. Computer

*I spend a lot of time searching for information in this category before I made purchase decision.*

Strongly Agree

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Strongly disagree

E-coupon searching

*Direction: Based your own personal experience, please indicate a number from 1 to 7 for the series of statements below, depending on the degree to which you agree or disagree with the statement.*

28. It takes little time to find a coupon I need to shop online.

Strongly Agree

- 1
29. Whenever I want certain coupons to shop online, I can find them on the Internet.
   Strongly Agree
   o 1
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7
   Strongly disagree

30. It’s convenient to search for e-coupons on the Internet.
   Strongly Agree
   o 1
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7
   Strongly disagree
31. As long as the coupon I need is on the Internet, it is always easy for me to find it.

   Strongly Agree
   ○ 1
   ○ 2
   ○ 3
   ○ 4
   ○ 5
   ○ 6
   ○ 7

   Strongly disagree

32. There are few obstacles for me to redeem the e-coupons I find for online shopping.

   Strongly Agree
   ○ 1
   ○ 2
   ○ 3
   ○ 4
   ○ 5
   ○ 6
   ○ 7

   Strongly disagree

33. I will search for e-coupon for my next online shopping on the brand I previously succeeded in coupon redemption.

   Strongly Agree
   ○ 1
   ○ 2
   ○ 3
34. I will search for e-coupon for my next online shopping for whatever product and brand I probably will buy.

   Strongly Agree
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7

   Strongly disagree

Participant's information

You will be asked to provide your name and class you are getting extra credit for in the survey in order to give you the extra credit. This information will be replaced with reference numbers once we make a list for granting extra credit. Once the extra credit lists are generated, all information connecting you to your responses (your name and class) will be destroyed.

35. Provide your name in the below box.

   First name and last name

36. Provide the class name you take to participate the survey.
xxx University, full class name (class number)

Thank you!

Thank you very much for your participation. Please click "continue" to submit your form.