Internet Shopping Behaviors of Generation Y African-American Based on Apparel Production Involvement

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Abstract

This study investigates internet shopping behaviors of Generation Y African-Americans (GYAAs), based on their levels of apparel product involvement associated with internet shopping orientations, internet situational influences, internet behavioral intentions, and previous internet shopping experiences. Data were collected from African-American college students of several universities in southeastern United States. Of the total surveys collected, 240 completed surveys were analyzed using multivariate analysis of variance (MANOVA), univariate analysis of variance (ANOVA), one-way ANOVA, chi-square, and phi-coefficient. This study attempts to understand internet shopping behaviors of GYAA. This research demonstrates that GYAAs have unique internet shopping behaviors toward on-line apparel products, showing that two involvement groups differ significantly in many ways. Internet shopping is highly attractive to high-involvement GYAA consumers due to its entertainment during their web-surfing as well as many other reasons such as its fashion-consciousness and personality rather than the reasons of convenience, expense, and familiarity, which are more sensitive to low-involvement GYAA consumers.

Keywords: internet shopping behavior, product involvement, Generation Y, African-American

1. Introduction

Considerable attention has been recently given to the internet, which can be one of the important market formats (Brown et al., 2003; Indvik, 2012; Park & Stoel, 2002; Watchravesringkan & Shim, 2003; Rahman, 2015; Bilgihan, 2016; Lissitsa, & Kol, 2016). More than 167 million consumers (53% of US population) shop on the internet every day. The internet shoppers will grow up to 224 million in 2019 (Statista, 2016). The volume of US internet sales has rapidly increased (Indvik, 2012). According to the Mulpuru (2013), sales of US internet retail will grow up to $370 billion by 2017. The average annual internet spending will reach $1,738.00 per person in 2016 from $1,207.00 in 2011 (Indvik, 2012). The internet provides a lot of shopping advantages such as convenience, prompt fashion information, accurate product price, and customer service information to consumer (Park & Stoel, 2002). Consumer can save the shopping time, compare the product price, and collect the product or service information on the internet. Many consumers have been shifting from the retail stores to internet retailers because they feel a convenient and pleasant shopping atmosphere and reach a wide variety of product categories easily through internet shopping (Indvik, 2012). In particular, the most remarkable consumer group in this shifting includes college students who are heavily shopping on the internet compared to other group (Park & Stoel, 2002; Comegys & Brennan, 2003; Seo, 2005; Xu & Paulins, 2005; Arnaudovska, et al., 2010; Valentine & Powers, 2013).

Typically, college students represent Generation Y consumers who are 18 to 34 year old in 2012 (Nielsen Company, 2012) because college students form the most influential consumer group in Generation Y. This young generation has much more chance to be exposed to new technology such as high speed internet for academic and educational purposes, resulting to potential consumers shopping on the internet. For this reason, many of research on Generation Y’s internet shopping behaviors have been actively studied (Seo, 2005; Valentine & Powers, 2013; Arnaudovska at el., 2010; Xu & Paulins, 2005; Lissitsa, & Kol, 2016; Statista, 2016). However, despite great efforts to understand Generation Y’s internet shopping behaviors, there has been little research reported on internet shopping behavior of its individual subgroup, which may take on a quite different aspect from Generation Y. Generation Y African-American (GYAA) is one of the important subgroups in that it is the second largest minority group of Generation Y in US. According to the Nielsen Company (2012), the population of GYAA is 25.4% in African-American Generational age dispersion. These GYAAAs have been created a “dynamic” segment of existing markets resulting from their increasing educated population with higher incomes compared to the past decades (Baker, 2013).
In some respects, we can say that African-Americans have different shopping habits from the other ethnic groups. For example, compared to the general shopper population, African-Americans are more enthusiastic apparel shoppers; higher percentage of African-American enjoys the shopping for clothes and spends more money on apparel (Mogelonsky, 1998). Kim and Kim (2005) reported that African-American teens preferred to go the shopping mall for sensory stimulation and social contact, whereas white teens exhibited a higher level of eating motivation. According to Grasso and Wright III (1997), African-American mothers have a unique taste in their children’s clothes such as the preference for cotton fabrics and decorations representing flowers or animals. These shopping habits of African-Americans influence shopping behaviors of young GYAAs who are very sensitive to internet. Therefore, GYAA is a crucial group of consumption on the internet markets with a unique shopping behavior as well as a dynamic group as described before.

Over the years since the concept of “involvement” introduced in 1947 (Sherif & Cantril, 1947), many researches on product involvement in shopping behaviors have been intensively studied to understand the effect of involvement on various purchasing decisions and consuming behaviors (Laurent & Kapferer, 1985; Beatty, Kahle, & Homer, 1988; Taylor & Joseph, 1984; Zaichkowsky, 1986; Fairhurst et al., 1989; O’Cass, 2004). Furthermore, this product involvement associated with “variables” such as shopping orientations places a great importance in indentifying the consumer shopping behaviors (Warrington & Shim, 2000, Seo et al., 2001, Kim, 2005; Seo & Namwamba, 2014). In this work, we explore GYAA’s internet shopping behaviors toward apparel products, based on the levels of product involvement associated with several variables: internet shopping behaviors, internet situational influences, internet behavioral intentions, and previous internet shopping experience. These variables were carefully selected to better investigate the influences of apparel product involvement on internet shopping behaviors of GYAA.

2. Literature Review

2.1 Internet Shoppers

Remarkable development of the computer technology with communication network evokes the global system of interconnected computer networks, so called “internet”. The internet provides a fascinating virtual place for gathering any product and service information, comparing brands, making a choice, and buying (Eastlick et al., 2003). Many consumers search for product and service information on the internet before they make purchasing decisions (Peterson & Merino, 2003; Nielsen Company, 2012). The internet shopping becomes one of the most familiar shopping tools to all generation.

In the recent years, there has been a considerable growth in online shopping by internet shoppers due to its great advantages such as convenience, low-price, and diversity (Broadsie George Mason University’s Student Newspaper, 2012). Internet shoppers are convenience and variety seekers who are more innovative and impulsive than non-internet shoppers (Donthu & Gracia, 1999; Szymanski & Hise, 2000). Interestingly, these internet shoppers are usually younger than non-internet shoppers (Jones & Fox 2009). For example, most college students easily access the internet owing to their own computer (Harris Interactive, 2002). This young people can search useful information on the internet 5 times faster than the old generation (O’Donnell, 2006). Their intimate relation with the internet provides more chance to shop for whatever they need on the internet. Transportation limitation of college students who do not have their own car also increases the chance of the internet shopping which offers almost anything they want (Broadsie George Mason University’s Student Newspaper, 2012; Xu & Paulins, 2005). Therefore, as a promising internet shopper, it is important to understand internet shopping behaviors of this young generation.

2.2 Generation Y

A large group of young people, born between early 1980s and middle 1990s (Paul, 2001), has attracted much attention due to not only their significant spending power but different shopping behaviors from the other generation. This age group is often referred to as Generation Y, which has a nick name as “echo boomers” because it is the second largest generation after the baby boomer (Taylor & Cosenza, 2002). Generation Y will reach 22% of total population in US in 2030 (MetLife Mature Market Institute, 2013). Generation Y in U.S. is one of the biggest markets with approximately $1.3 trillion spending power in 2015 (Brown, 2015). Generation Y is important in retail area because its shopping behaviors influence all product categories of software and hardware products (Backwell & Mitchell, 2003; Parment, 2013; Brown, 2015). According to the Parment’s study (2013), Generation Y consumers love to spend time at the retail stores looking new products even though they do not have an intention to buy. They usually look for a reasonable price product for themselves. However, sometimes, the price of product is not an important factor to Generation Y consumers if they really want to have it. They prefer to buy the well-known brand products. Generation Y is more likely to visit the retail stores near their home or work. This Generation Y is usually represented by college student, the population size of which is 22 million from 2013 to 2014 (Mobile Youth Idea Factory, 2013). During the academic year, the U.S. college students spend more than $13.1 billion on their clothes which is the third in top 3 spending categories after food and car.
Unlike Generation Y’s on- or off-line shopping behaviors, the marketing patterns of the individual subgroup within Generation Y often exhibit the shopping behavior distinct from Generation Y. For example, the distinctive shopping behaviors of African-Americans (Grasso & Wright III, 1997; Kim & Kim, 2001; Mogelonsky, 1998) can influence Generation Y African-Americans (GYAAs), making a formation of their unique shopping patterns compared to Generation Y. It is known that this young generation has strong spending power in the off-line store and great influence on U.S. marketing area (Nielsen Company, 2012). Nonetheless, there is no study on GYAA’s shopping behaviors in on-line market which is more attractive to generation Y consumer rather than off-line store.

2.3 General Information of Involvement

The product involvement is an important concept and an ongoing topic in consumer research (Beatty et al., 1988; Coulter et al., 2003; O’Cass, 2004; Seo et al., 2001; Coulter et al., 2003; Tyler, 1981; Zaichkowsky, 1986). In many researches, this involvement has been used as one of powerful tools to understand the consumers’ behaviors. There are many ways to understand the concept of involvement which is significantly related to consumer behaviors, purchasing decision, information search, and self-reliance (Traylor & Joseph, 1984; Laurent & Kapferer, 1985; Seo & Namwamba, 2014; Huang, 2012). The product involvement, which is a state of motivation, arousal, or interest in a product, is influenced by consumers’ cognition, attention, memory, knowledge, and possessions (Laurent & Kapferer, 1985; Zaichkowsky, 1986; O’Cass, 2004). When consumers decide to buy a product, the level of product involvement reflects how important the product is to them or how interested they are in consuming the product. Especially, high-involvement consumers are highly important in marketing research area because they are influential consumers as an early adapter or innovator in a product life cycle (Tigert et al., 1976; Goldsmith et al., 1996). High-involvement consumers are more motivated to spend time searching for the information of products such as price, fashion, and trend from a variety of source before shopping than low-involvement consumers (Shim & Kotsiopulos, 1992; Seo et al., 2001; Warrington & Shim, 2000). High-involvement consumers who are heavy product buyers spend lots of money for a number of products (Tigert et al., 1976; Seo et al., 2001).

More than 23 different methods to measure product involvement have been introduced since 1965 (O’Cass, 2000). Although most of methods face significant criticism, the Personal Involvement Inventory (PII) of Zaichkowsky (1985), one of the most well-known instruments for product involvement, has been found to be a reliable and valid measure of a product involvement construct (Fairhurst et al., 1989). This was confirmed by measuring high reliability (Cronbach’s alpha) of apparel involvement with the PII, which has been addressed in many reports using apparel in a high involvement product category (Seo & Namwamba, 2014; Warrington & Shim, 2000; Zaichkowsky, 1986). Those reports also demonstrate that the reliable measurement of the PII makes it easier and clearer to create the levels of involvement groups of consumers, which is crucial to identify the consumer shopping behaviors by measuring the influence of each involvement group on variables such as shopping orientation and so on.

2.4 Shopping Orientation

The definition of shopping orientation is usually given as the general predisposition toward the acts of shopping (Brown et al., 2003). Here, shopping is a multipurpose activity that directly connects consumers with retailers (Arnaudovska et al., 2010). As one of important variables in shopping behaviors, shopping orientation is often described with consumers’ shopping tendencies, shopping habits, and purchasing behaviors (Darden & Howell, 1987; Gehrt & Carter, 1992). Thus, retailing and marketing researchers have investigated shopping orientation to understand consumers’ consumption patterns and purchasing behaviors (Darden & Lusch, 1983; Darden & Howell, 1987; Shim & Kotsiopulos, 1992). So far, the concept of shopping orientations has been widely used in traditional formats, brick-and-mortar retail (Shim & Kotsiopulos, 1992; Warrington & Shim, 2000; Seo et al., 2001; Seo & Namwamba, 2014). However, purchasing the product on-line may show quite different behavior patterns in shopping orientations from purchasing at brick-and-mortar shops. This work includes internet shopping orientation which is related to the shoppers’ particular styles during shopping for on-line products.

The study of the effect of involvement on shopping orientation as well as purchasing decisions helps to consider consumers’ shopping behaviors from a different angle. The product involvement associated with shopping orientation was reported to explain consumers’ purchasing behaviors of college students (Warrington & Shim, 2000; Seo & Namwamba, 2014). These studies found that low- and high-involvement consumers have different shopping behaviors respectively. Consumers with a high level of apparel involvement have higher mean scores on factors of shopping orientation such as fashion consciousness and brand consciousness, than apathetic consumers with a low level of
apparel involvement (Shim & Kotsiopulos, 1993). For this reason, every variable in internet shopping behaviors such as internet shopping orientation, internet situational influences, and internet behavioral intention will be similarly discussed based on the concept of product involvement in this report.

2.5 Situational Influence

From time to time, shopping motivation is controlled by factor irrelevant to the customer’s own will. This factor, better known as one of situational influences such as time, place, or conditions, often affects the customer’s purchasing decisions. According to Engel et al. (1986), situational influence is a fundamental issue with broad implication due to differences in individual physical surroundings, circumstances, and the family units which have powerful but uncontrollable effects on consumer behaviors. Shim and Drake (1990) studied situational influences related to mail order service in their report, where they found that time pressure, one of situational influences, was the most influential factor in causing to purchase apparel through mail order. Consumers who are making choices under time pressure may alter their decision-making strategies by the choice of mail order service for saving time (Lohse et al., 2000; Shim & Drake, 1990).

Situational influences combined with internet shopping, so called internet situational influences can bring new categories of factors such as “Convenience” and “Entertainment” instead of time, place, or conditions (Seo, 2005). People usually do on-line shopping for many reasons such as convenience. For example, many college students have limited time or place for shopping due to heavy duties for school work with part time job or lack of own vehicles, leading to the need of convenience shopping on the internet (Seo, 2005; Xu & Paulins, 2005; Student Watch, 2012). On the other hand, the advent of smart devices, such as smartphone, iPad, and tablet, with development of technology provides these young consumers with more chance to enjoy the virtual worlds on the web, resulting to the enjoyment of internet shopping as an entertainment (Nielsen Company, 2012).

2.6 Behavioral Intention

Behavioral intention can be defined as “a person’s subjective probability that he or she will perform some behavior” (Fishbein & Ajzen, 1977). It refers to a person’s perceived likelihood that a consumer actually buys something. Especially, behavioral intention combined with internet shopping, so called internet behavioral intention, is the probability that consumers visit retail websites and then actually purchase the product on-line (Mosavi et al., 2012). It is reported that consumers who have favorable attitudes toward on-line shopping have more intentions of purchasing or shopping on the internet (Mosavi et al., 2012; Xu & Paulin, 2005). In fact, attitude is one of the important factors which influence future-oriented behavior intention (Mosavi et al., 2012). Many college students with favorite attitudes toward internet shopping have a great willingness to purchase their apparel on the internet in the future (Xu & Paulin, 2005). Therefore, as a great potential consumer, college students such as GYAA play an important role for future market.

2.7 Previous Shopping Experience

Previous shopping experience is also one of the important influential elements on internet shopping (Mohmed et al., 2013; Xu & Paulins, 2005; Fang et al., 2016). There are some reports that consumers who have positive previous experiences in internet shopping have greater intentions to repurchase product on-line in the future (Lohse et al., 2000; Shim & Drake, 1990; Xu & Paulins, 2005; Huang, 2012). When consumers have positive experiences with satisfaction of their product purchased from on-line retailers, they tend to revisit the website for shopping (Fang et al., 2016). Meanwhile, some consumers without any shopping experience on the internet have less intention of internet shopping (Xu & Paulins, 2005). For this reason, the impact of the previous internet shopping experience on shopping behaviors can be strong enough to be a key “variable” in internet shopping behavior.

3. Method

3.1 Research Hypotheses

This study analyzes the internet shopping behaviors of GYAA toward apparel products based on the product involvement. To address this issue, this research explores the product involvement associated with several variables such as internet shopping orientations, internet situational influences, internet behavioral intentions, and previous internet shopping experiences. The following hypotheses were developed to demonstrate the internet shopping behaviors of GYAA:

H1: The levels of product involvement of GYAA is significantly related to Internet shopping orientations.

H2: The levels of product involvement of GYAA is significantly related to internet situational influences.

H3: The levels of product involvement of GYAA is significantly related to internet behavioral intentions.

H4: High- (or low-) involvement GYAA consumers who have previous internet shopping experience are more willing to purchase clothing on the internet than those who have no previous experience.
In order to assess the hypotheses, this research project was conducted at several southeastern universities in US for a convenience sampling of African-American college students representing GYAAAs. The participators voluntarily participated in the survey, which took 15 to 20 min. Of 263 surveys collected, 240 were used in this study. Data were analyzed with IBM SPSS statistics version 19 software.

3.2 Measurement

For this study, the questionnaire includes product involvement, 4 variables, and demographics: 8 items measuring apparel product involvement, 27 items assessing internet shopping orientation, 12 items on internet situational influences, 2 items on internet behavioral intentions, 2 items on previous internet shopping experience and purchase intention, and 9 questions about demographics. Some statements were developed by the researcher to see internet shopping behaviors of African-American college students. All respondents were briefed about the questionnaire, 4 variables in which should be based on “internet shopping”, before completing their copies.

Product Involvement: The short version of Zaichkowsky’s Personal Involvement Index (PII) (1985) was used to measure product involvement for African-American college students. The researcher asked respondents to complete 8 items on 7-point bipolar scale, selected by Shim and Kotsiopulos (1991) from PII, reflecting respondents’ opinion about clothing (e.g., “important (7)” - “unimportant (1)”, “of concern (7)” - “of no concern (1)”, etc). Therefore, the total score of product involvement per each questionnaire could range from 8 to 56. Note that “the average scores” of product involvement corresponding to each respondent are defined as the total scores of product involvement divided by the number of items (8 items), ranging from 1 to 7, whereas “the mean score” of product involvement corresponding to all respondents is defined as the total average scores of product involvement divided by the number of questionnaires (n = 240). Principal-component factor analysis with varimax rotation extracted only one factor. Reliability (Cronbach’s alpha) of product involvement in African-American college students was 0.94, indicating excellent internal consistency for the construct.

Internet Shopping Orientations: Most of items on internet shopping orientations were adopted from previous reports (Shim & Kotsiopulos, 1992; Warrington & Shim, 2000). Respondents were asked to indicate their level of agreement/disagreement on a 7-point Likert-type scale to a given statement. A few statements were modified to fit in with the internet shopping study and some of new statements were developed by researcher. Principal component factor analysis with Varimax rotation was performed on 27 shopping orientation statements. The factor loadings less than 0.50 were eliminated, and items with factor loadings greater than 0.50 were retained on a factor. The analysis extracted the following five factors: Click and Mortar Preference, Internet Fashion Consciousness, Internet Price Consciousness, Internet Shopping Personality, and Internet Brand Consciousness. The cumulative percentage of variance accounted for by these five factors is 61.28% (Table 1). Reliability (Cronbach’s alpha) of each factor ranged from 0.652 to 0.871 as shown in table 1.
Table 1. Principal component analysis of Internet Shopping Orientations

<table>
<thead>
<tr>
<th>Factor Name</th>
<th>Statements</th>
<th>Factor Loading</th>
<th>Eigen-Values</th>
<th>Percent of variance</th>
<th>Cronbach’s Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Click and Mortar Preference</td>
<td>The Internet is the best place to purchase clothing.</td>
<td>0.862</td>
<td>6.338</td>
<td>27.557</td>
<td>0.871</td>
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<tr>
<td></td>
<td>The Internet is the best place to search for different kinds of clothing.</td>
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<td>The reason I like Internet shopping is that it makes it easy to compare prices.</td>
<td>0.818</td>
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<td></td>
<td>I try to shop for clothing on the Internet.</td>
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<td></td>
<td>The direct market (mail order or catalog) is a good place to shop for clothing.</td>
<td>0.760</td>
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<td>The reason I like Internet shopping is that it gives consumers’ recommendations.</td>
<td>0.544</td>
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<tr>
<td>Factor 2: Internet Fashion Consciousness</td>
<td>If it is possible, I would rather buy clothing that has a well-known brand name.</td>
<td>0.761</td>
<td>2.812</td>
<td>12.227</td>
<td>0.793</td>
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<td>I believe that name-brand clothing is worth its high price.</td>
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<td>I bought the brand name of clothing that I liked the most.</td>
<td>0.726</td>
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<td>I am most concerned with clothing that has the latest fashion.</td>
<td>0.713</td>
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<td>I try to be alert to current fashion.</td>
<td>0.655</td>
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<td>I do not hesitate to buy expensive clothing if I really like it.</td>
<td>0.561</td>
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<tr>
<td>Factor 3: Internet Price Consciousness</td>
<td>I consider price first.</td>
<td>0.816</td>
<td>2.050</td>
<td>8.913</td>
<td>0.765</td>
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<td></td>
<td>I carefully watch how much I spend.</td>
<td>0.737</td>
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<td></td>
<td>When I purchased clothing, price was the most important factor.</td>
<td>0.663</td>
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<td>The lowest price products are usually my choice.</td>
<td>0.644</td>
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<td>I would not buy clothing unless it is on sale.</td>
<td>0.575</td>
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<td>Factor 4: Internet Shopping Personality</td>
<td>I like to try new and different place to shop.</td>
<td>0.753</td>
<td>1.747</td>
<td>7.597</td>
<td>0.725</td>
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<td></td>
<td>I think I am a good shopper.</td>
<td>0.723</td>
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<td></td>
<td>I like to wear a different style of clothing than others wear.</td>
<td>0.722</td>
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<tr>
<td>Factor 5: Internet Brand Consciousness</td>
<td>I usually compare at least three brands before choosing.</td>
<td>0.715</td>
<td>1.146</td>
<td>4.982</td>
<td>0.652</td>
</tr>
<tr>
<td></td>
<td>I make it a rule to shop at a number of stores before I buy.</td>
<td>0.708</td>
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<td></td>
<td>I selected a brand name carefully because there was less risk.</td>
<td>0.563</td>
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<tr>
<td>Cumulative percentage</td>
<td></td>
<td></td>
<td></td>
<td>61.28 %</td>
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</tbody>
</table>

Internet situational Influences: 12 items on internet situational influences were adopted from Shim and Drake (1990) and Bruner II and Hensel (2000). Each respondent was asked to indicate the extent to which they agreed with each statement on a 7-point Likert-type scale. The researcher eliminated one statement, “when I find what I like, I usually buy it without hesitation” because the factor loading was lower than 0.50. The cumulative percentage of variance accounted for by the two factors was 61.88%. Two factors were Entertainment and Convenience. Reliability (Cronbach’s alpha) was 0.916 for the factor of Entertainment, and 0.670 for the factor of Convenience. The result of principal component analysis for situational influences is shown in table 2.

Internet behavioral Intentions: The grade of internet behavioral intentions was assessed by asking respondents to indicate their agreement levels on a 7-point Likert-type scale. The respondents circled a degree of agreement with each of statements (“I intend to visit the Internet apparel retailer’s website in the future” and “I have a favorable attitude toward continuing to do business with the Internet apparel retailer over the next few years”). Reliability (Cronbach’s alpha) of internet behavioral intentions was 0.870, indicating good internal consistency.

Previous internet shopping experiences and purchase intention: Respondents replied to yes or no questions, indicating if they have an intention to purchase on-line apparel product dependent on previous internet shopping experience. The respondents were asked to check two questions (“Have you purchased clothing on the internet?” and “Will you purchase clothing on the internet?”).
Table 2. Principal component analysis for Internet Situational Influences

<table>
<thead>
<tr>
<th>Factor Name</th>
<th>Statements</th>
<th>Factor Loading</th>
<th>Eigen-Values</th>
<th>Percent of variance</th>
<th>Cronbach’s Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>I like to shop at home through the Internet.</td>
<td>0.877</td>
<td>5.284</td>
<td>48.038</td>
<td>0.916</td>
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<tr>
<td>Entertainment</td>
<td>The Internet is an attractive place to shop.</td>
<td>0.847</td>
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<td>Factor 2</td>
<td>I usually buy at the most convenient markets.</td>
<td>0.744</td>
<td>1.523</td>
<td>13.844</td>
<td>0.670</td>
</tr>
<tr>
<td>Convenience</td>
<td>I do not like to spend too much time planning my clothing shopping.</td>
<td>0.712</td>
<td></td>
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<tr>
<td>Cumulative</td>
<td>The Internet stores offer me good quality for the price.</td>
<td>0.830</td>
<td></td>
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<tr>
<td>percentage</td>
<td>Internet ordering of clothing at home is more convenient than going to the store.</td>
<td>0.750</td>
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<td>I am ordering more things from my home via the Internet in order to save a lot of time.</td>
<td>0.747</td>
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<td>I love to browse through the Internet.</td>
<td>0.695</td>
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<td></td>
<td>I shop where it saves me time.</td>
<td>0.668</td>
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<td></td>
<td>The Internet markets (stores) just do not meet shopping needs.</td>
<td>0.631</td>
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<tr>
<td></td>
<td>Cumulative percentage</td>
<td>61.88%</td>
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</tr>
</tbody>
</table>

4. Results

4.1 Description of Respondents

All surveys were collected from African-American college students, of whom 62.5% (n=150) are female and 37.5% (n=90) are male. The majority of respondents were single (89.2%) and undergraduate students (96.3%). Around 14.2% of the respondents were freshmen (n = 34), 26.3% were sophomores (n = 63), 26.3% were juniors (n = 63), 29.6% were seniors (n = 71), 2.5% (n = 6) were graduate, and 1.3% (n = 3) were not sure about their classification. Most respondents were in the 18 through 24 age category (85.4%, n = 205), and 58.3% (n = 140) of respondents had a part or full time job during their academic year. The respondents in this study have a variety of majors.

4.2 Product Involvement Groups

The mean score of product involvement was 5.61 with a standard deviation of 1.45. All respondents was classified into two groups with the values of the mean score plus or minus half a standard deviation (M ± ½SD: M = 5.61, SD = 1.45), resulting to high- and low-involvement groups. This process of grouping is similar to Warrington & Shim’s method (2000). In this work, the apparel involvement distribution was segmented into high- and low-involvement groups as follows: average scores of product involvement in low-involvement group (Low PI: n=68, 28%) ranged from 1 to 4.89, and average scores in high-involvement group (High PI: n=96, 40%) ranged from 6.34 to 7. Respondents (n = 76, 31.7%), whose average scores ranged between 4.90 and 6.33, were not classified into involvement groups due to their duality of product involvement and were eliminated from further analysis.

4.3 Hypothesis Testing

Hypotheses were tested for the purpose of the study. Multivariate analysis of variance (MANOVA), analysis of variance (ANOVA), one-way ANOVA, and chi-square and phi tests were used for hypothesis testing. In order to determine significant individual differences between two groups, individual ANOVAs were employed when MANOVA was significant.

Testing Hypothesis 1

MANOVA on internet shopping orientations reveals that the group means of two involvement groups were significantly different in overall mode (F = 5.44, p < 0.001). Individual ANOVA indicates that the low- and high-involvement groups were significantly different from each other on 3 factors of Click and Mortar Preference (F = 8.72, p <0.001), Internet Fashion Consciousness (F = 15.08, p < 0.001), and Internet Shopping Personality (F = 10.30, p < 0.001), but not on 2 factors of Internet Price Consciousness (F = 0.29, p = 0.75) and Internet Brand Consciousness (F = 1.78, p = 0.17). In other words, the first 3 factors, correlation of which was significant, had much higher group means of the high-involvement group than those of the low-involvement group, while the last 2 factors had lower or slightly higher group means of the high-involvement group than those of the low-involvement group. Based on these findings, H1 was supported. The results of MANOVA and ANOVA are shown in table 3.
Testing Hypothesis 2

MANOVA and ANOVA were performed to test significant difference between the high- and low-involvement groups. The results of MANOVA indicated that the high-involvement group on the overall factors in internet situational influences significantly differ from the low-involvement group \( (F = 3.16, p < 0.05) \). ANOVA revealed that two product involvement groups were significantly different on Entertainment \( (F = 5.71, p < 0.005) \) but not on Convenience \( (F = 0.32, p = 0.73) \). That is to say, the high-involvement group had significantly higher group mean scores than the low-involvement group on Entertainment. On the other hand, the low-involvement consumers have slightly higher mean scores than high-involvement consumers on Convenience, indicating that Convenience cannot be ignored in internet shopping of low-involvement consumers. Therefore, the results of MANOVA and ANOVA as shown in table 3 supported H2.

Testing Hypothesis 3

One-way ANOVA was directly executed to determine how high- and low-involvement groups significantly differ from each other on internet behavioral intentions. The high-involvement group had significantly higher group mean scores than the low-involvement group as shown in table 4. The univariate value \( (F=7.22, p < 0.05) \) supported H3.

Table 3. MANOVA and ANOVA factors of Internet Shopping Orientations and Internet Situational Influences

<table>
<thead>
<tr>
<th>Internet Shopping Orientation</th>
<th>Group Means (M)</th>
<th>Univariate F</th>
<th>Multivariate F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low PI ( n=68 )</td>
<td>High PI ( n=96 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Click and Mortar Preference</td>
<td>4.18</td>
<td>4.75</td>
<td>8.72***</td>
</tr>
<tr>
<td>Internet Fashion Consciousness</td>
<td>3.99</td>
<td>5.01</td>
<td>15.08***</td>
</tr>
<tr>
<td>Internet Price Consciousness</td>
<td>4.79</td>
<td>4.67</td>
<td>0.29</td>
</tr>
<tr>
<td>Internet Shopping Personality</td>
<td>4.90</td>
<td>5.69</td>
<td>10.30***</td>
</tr>
<tr>
<td>Internet Brand Consciousness</td>
<td>3.86</td>
<td>4.14</td>
<td>1.78</td>
</tr>
<tr>
<td>Internet Situational Influence</td>
<td>3.16*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td>4.48</td>
<td>5.01</td>
<td>5.71**</td>
</tr>
<tr>
<td>Convenience</td>
<td>4.41</td>
<td>4.39</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Note: Means with the superscript indicate significant differences between the groups. Scores ranged from 1 (Strongly Disagree) to 7 (Strongly Agree).

***. Correlation is significant at the 0.001 level (2-tailed).

**. Correlation is significant at the 0.005 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4. The result of one-way ANOVA between Product Involvement (PI) and Internet Behavioral Intentions

<table>
<thead>
<tr>
<th>Internet Behavioral Intentions</th>
<th>Group Means (M)</th>
<th>Univariate F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low PI ( n=68 )</td>
<td>High PI ( n=96 )</td>
<td></td>
</tr>
<tr>
<td>4.16</td>
<td>4.78</td>
<td>7.22***</td>
</tr>
</tbody>
</table>

Note: Means with the superscript indicate significant differences between the groups. Scores ranged from 1 (Strongly Disagree) to 7 (Strongly Agree).

*. Correlation is significant at the 0.05 level (2-tailed).

Testing Hypothesis 4

A chi-square analysis was conducted to determine how previous internet shopping experiences influenced on-line purchase intention. The test was independently performed in each involvement group, resulting to \( \chi^2 = 28.51, p < 0.001 \) for low-involvement group and \( \chi^2 = 17.45, p < 0.001 \) for high-involvement group. This reveals that previous internet shopping experiences are significantly related to on-line purchase intention regardless of involvement group. As shown in table 5, those who have previous internet shopping experiences were more likely to purchase clothing on the internet than those who have no previous internet shopping experience, irrespective of involvement groups which respondents belong to. Therefore, H4 was accepted. To measure the strength of relationship, the association known as a phi-coefficient was computed using the adjustment of chi-square statistics by the sample size. The typical phi-coefficient in the 2x2 case is greater than zero but less than one. A phi-coefficient equal to zero indicates independence (no association), while a coefficient equal to one indicates a complete dependence (association). Table 6
exhibits two values of phi-coefficient representing the relationship between previous internet shopping experience and on-line purchase intention, with respect to each involvement group. The different values of phi-coefficient, even though both are relatively above strong association, indicate that the relationship of previous internet shopping experience and on-line purchase intention in low-involvement group is much stronger than relationship in high-involvement group.

5. Discussion

Most of college students enjoy using the internet as a communication or entertainment tool at school, home, work, and other places. In today’s world, college students are more easily to access the internet owing to the mobile devices such as smartphone, tablet, and i-pad. They prefer to browse the website with their mobile devices during their idle time at school or work. This life style of college students influences their shopping behaviors. In this study, about 42% of African-American college students (n=100 out of 240), representing GYAA, use the internet for “personal shopping” more than two times per month. This result indicates that African-American college students are much heavier internet shoppers than typical college students who have much less shopping frequency (once a year) with slightly higher ratio (~50%) in their online personal shopping (Student Watch, 2012). Therefore, it is not surprising to find that 71.7 % of African-American college students

Table 5. A Chi-square analysis ($\chi^2$) for previous internet shopping experiences and on-line purchase intention

<table>
<thead>
<tr>
<th>Previous Experiences</th>
<th>Will you purchase clothing on the Internet?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Purchase Intention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Low Involvement</td>
<td>45a (66%)</td>
<td>0b (0%)</td>
</tr>
<tr>
<td>No</td>
<td>11b (16%)</td>
<td>12a (18%)</td>
</tr>
<tr>
<td>Total</td>
<td>56 (82%)</td>
<td>12 (18%)</td>
</tr>
<tr>
<td>High Involvement</td>
<td>71a (74%)</td>
<td>3b (3%)</td>
</tr>
<tr>
<td>No</td>
<td>14b (15%)</td>
<td>8a (8%)</td>
</tr>
<tr>
<td>Total</td>
<td>85 (89%)</td>
<td>11 (11%)</td>
</tr>
</tbody>
</table>

Table 6. Phi coefficients for the relationship between previous internet shopping experiences and on-line purchase intention

<table>
<thead>
<tr>
<th>Two Groups</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Involvement</td>
<td>$\phi$ 0.647</td>
</tr>
<tr>
<td>High Involvement</td>
<td>$\phi$ 0.426</td>
</tr>
</tbody>
</table>

Note: Value of $\phi$

- .40 and under .60 Relatively strong association
- .60 and under .80 Strong association

($n=172$ out of 240) have purchased apparel products on the internet. The primary shopping motivation of those who purchased on-line apparel product is convenience or saving time, similar to the finding of the previous research (Comegys & Brennan, 2003). Another motivation is that internet shopping makes it possible to offer special products such as plus-sized clothing or limited edition, which are not available in the regular retail stores, sometimes with discounted price.

5.1 Levels of Product Involvement

This research demonstrates that GYAA’s have a unique internet shopping behaviors based on the levels of product involvement. Sometimes, internet shopping behaviors can be deeply described with involvement groups created by the levels of product involvement using the mean and the standard deviation. Here, the mean score of product involvement was 5.61, which is higher than the median of 4 on 7-point bipolar scale, indicating GYAA’s strong interests in apparel product. After grouping, the low-involvement group was composed of 68 out of 240 respondents (28%) and the high-involvement group was composed of 96 out of 240 respondents (40%). The ranges of average scores within the low- and high-involvement groups were 1 to 4.89 and 6.33 to 7, respectively. The ratio of respondents in two involvement groups within these ranges is 68 : 96, indicating that consumers in high-involvement group is 1.43 times more than consumers in low-involvement group. This suggests that GYAA’s who carefully consider their choices before purchasing apparel products are 1.43 times more than those who do not. Surprisingly, this distribution of GYAA’s in two

72
involvement groups is quite different from the previous study (Seo, 2005) which showed equal ratio between two involvement groups of typical college students. Contrary to the traditional studies on shopping behaviors, the classification of consumers using the concept of product involvement provides critical perspective on consumers’ decision-making path or their shopping behaviors. In this work, we found that high-involvement consumers of GYAAs exhibited much stronger affirmative shopping behaviors than low-involvement consumers when they were involved in several variables such as Internet Shopping Orientation.

5.2 Internet Shopping Orientations
As shown in table 3, one of the results from multivariate tests supports that the high-involvement GYAAs are more significantly influenced by internet shopping orientations than low-involvement GYAAs, which is similar to the previous researches on shopping orientations (Warrington & Shim, 2000; Seo & Namwamba, 2014). Conducting a series of follow-up ANOVAs shows GYAAs’ shopping behaviors on each factor of internet shopping orientations. First, the high-involvement GYAAs have much stronger preference for on-line apparel shopping than the low-involvement GYAAs, suggesting that higher-involvement GYAAs consider internet as one of more excellent shopping tools. Second, as far as on-line apparel shopping is concerned, the high-involvement GYAAs are more fashion- and trend-conscious than the low-involvement GYAAs, whereas it is hard to say which level of product involvement GYAAs have significantly high brand-consciousness. This indicates that fashion or trend is more important factor rather than brand-name on internet shopping behaviors of GYAAs. However, every consumer is not always conscious about brand-name. Rather, many of typical college students are very brand conscious (Seo, 2005; Warrington & Shim, 2000), unlike African-American college students. Third, although ANOVA test on internet shopping personality results that there is a significant difference between two involvement groups, low-involvement GYAAs as well as high-involvement GYAAs also highly cultivate their personality with clothing to express the wear’s individuality or enthusiasm. Fourth, the price of clothing is the important factor to low-involvement GYAAs but not to high-involvement GYAAs. In other words, once high-involvement GYAAs believe that a certain on-line apparel product makes it possible to keep up with fashion trends on their life, they are more likely to purchase it regardless of the cost.

5.3 Internet Situational Influences
Performing a MANOVA confirmed that the overall difference between two involvement groups was statistically significant on internet situational influences with two factors, Entertainment and Convenience. However, Individual ANOVAs indicated that two involvement groups were significantly different on Entertainment but not on Convenience. Surprisingly, even though significant correlation on Entertainment, both two involvement groups have high values of group means. This result indicates that low-involvement GYAAs as well as high-involvement GYAAs is strongly influenced by the factor of Entertainment (both of group means were much higher than the median of 4.0 on a seven-point scale), suggesting that Entertainment plays a crucial role in internet shopping of all involvement GYAAs’ groups. Another interesting finding is that the factor of Convenience cannot be ignorable to low-involvement GYAAs even though group means of two involvement groups are relatively low (table 3). Instead, group mean of low-involvement GYAAs is unusually a little higher than that of high-involvement GYAAs. This suggests that low-involvement GYAAs are somewhat concerned about “convenience” even though the factor of Convenience does not significantly influence the behaviors of both involvement groups of GYAA. Meanwhile, relatively low group means of GYAAs on the factor of Convenience are quite different from research on internet shopping behaviors of the typical college students, most of whom have affirmative attitudes toward internet apparel shopping for the reason of convenience in case they have time pressure, limitation for transportation, or un-satisfaction with local stores (Xu & Paulins, 2005). Nowadays, even though low-involvement GYAAs feel a little more stressed in time pressure or un-satisfaction with local than high-involvement GYAAs, most of GYAAs enjoy internet shopping for entertainment or hedonic reason just like window shopping.

5.4 Internet Behavioral Intentions
In table 4, the significant one-way ANOVA result shows that high-involvement GYAAs have much stronger internet behavioral intentions toward apparel than low-involvement students. This means that high-involvement GYAAs have much stronger intention to visit the websites for shopping and purchase on-line product or much more favorable attitudes toward internet shopping than low-involvement GYAAs. Interestingly, the group mean of low-involvement GYAAs has also slightly higher than the median of 4.0, indicating that many GYAAs regardless of involvement groups have relatively strong intention of shopping for on-line apparel. This result is also consistent with the previous study (Xu & Paulins, 2005).

5.5 Previous Internet Shopping Experiences
The chi-square analysis demonstrates that respondents with on-line purchase intention can significantly increase as they have previous internet shopping experiences (table 5). However, it turns out that significance of relationship between previous experience and purchase intention has nothing to do with levels of involvement groups. Therefore, it can be
said that GYAAAs who have previous internet shopping experience regardless of the level of product involvement have stronger intention to shop on the internet than GYAAAs who have no internet shopping experience. This finding supports the previous reports that internet shopping experience directly influences on-line purchase intention (Shim & Drake, 1990; Lohse et al., 2000). Nevertheless, the result in this study is not consistent with the other previous work (Seo, 2005) in which the product involvement was involved. That is to say, all involvement groups of GYAAAs is significantly influenced by previous internet shopping experience, while only low-involvement group of typical college students is significantly influenced by it, revealing the uniqueness in GYAA’s shopping behavior.

For comparison of significances in two involvement groups, quantitative measurement was given by a phi-coefficient describing the strength of relationship with the values from zero to one. Table 6 represents that high- and low-involvement groups of GYAA have phi-coefficients of 0.426 and 0.647 respectively, indicating “relatively strong” and “strong” association between previous internet shopping experience and purchase intention for on-line apparel product. Therefore, it can be concluded that previous experiences get low-involvement GYAAAs more interested in purchasing on-line product than high-involvement GYAAAs from phi-coefficient.

As shown in table 5, a study of all respondents’ purchase intention irrespective of previous experience leads to another interesting result: 56 out of 68 respondents (82%) in low-involvement group and 85 out of 96 respondents (89%) in high-involvement group were willing to purchase clothing on the internet. The ratio of low-involvement respondents who have the positive on-line purchase intention is slightly lower than the ratio of high-involvement respondents. This is similar to the result of Internet Behavioral Intentions described before, but opposite to the result of phi-coefficients related to previous experience. Therefore, high-involvement GYAAAs generally have more interested in internet shopping than low-involvement GYAAAs, whereas previous experiences get low-involvement GYAAAs more interested in internet shopping than high-involvement GYAAAs. Previous internet shopping experience is one of the most important factors for low-involvement GYAAAs to have a purchase intention. Moreover, Convenience can be another key factor for low-involvement GYAAAs compared to high-involvement GYAAAs. On the other hand, high-involvement GYAAAs have more interested in Entertainment rather than Convenience and care less about previous experiences during the shopping over the internet. This suggests that internet shopping is attractive to high-involvement GYAAAs only if web-surfing itself for internet shopping entertains them regardless of familiarity or convenience.

If all of respondents \((n = 240)\) including two involvement groups are counted irrespective of previous experience, 203 out of 240 respondents (85%) have the positive on-line purchase intention for apparel, indicating that most of GYAAAs are willing to purchase on-line apparel product in the future. However, the study of Xu and Paulins (2005) showed that about 55 % of the typical college students were willing to purchase clothing on the internet in the future. Compared to the result of Xu and Paulins (2005), GYAAAs are likely to be a more active internet shopper than typical college students.

6. Conclusion

With Internet technology advancing at stunning speed, many researchers have actively studied on internet shopping behaviors of young generation such as Generation Y college students. However, little has been reported on internet shopping behaviors of Generation Y African-American college students based on apparel product involvement despite the importance of this influential consumer group with their own unique shopping behaviors. Compared to typical college students, GYAAAs are more concentrated in high-involvement group as a heavier internet shopper. Such high-involvement GYAAAs are strongly influenced by Internet Shopping Orientations, Internet Situational Influences, Internet Behavioral Intentions, and Previous Internet Shopping Experiences. Especially, they are highly sensitive to most of factors of internet shopping behaviors such as fashion-consciousness, high personality, and preference of entertainment, but relatively less sensitive to expense, convenience, and familiarity which are more crucial factors to low-involvement GYAAAs.

7. Limitations

This study has certain limitations that must be considered. The sample population of this study was limited to southeastern area in US, so that the findings may not reflect broad geographical and racial differences among college students. The other limitation of this study is in the sample size and the gender distribution. Even though effective 240 surveys were used in this study, only 164 surveys were selected into high- and low-involvement groups. Female respondents had a higher ratio (62.5%) than male (37.5%), which probably lead to the result of women-oriented shopping behaviors. Finally, this work was investigated with only a single product (clothing). Although this study focuses on a single product similar to many other studies (Warrington & Shim, 2000; Xu & Paulins, 2005; Kim, 2005; Kinley et al., 2010), the results represent a narrowly defined internet market segment. Therefore, results may be not representative of general GYAA’s shopping behaviors for the internet market.
Acknowledgments

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