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Digital Marketing of Cotton to Generation Y College Students*

Brenda Avila**, Jay-Sang Ryu***

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Abstract

Purpose – Gen Y college students have emerged as a profitable consumer segment because of their growing purchasing power and influence on others' buying decisions. Digital marketing is deemed effective in increasing Gen Y college students' knowledge of and interest in products and services. This research examined the effect of digital marketing on Gen Y college students' perceptions, attitudes and purchase intentions toward cotton clothing compared to that of conventional print marketing and no marketing.

Research design, Date and Methodology – Data were collected from three different groups of college students from a large university in the U.S.: the group with no cotton marketing, those with print media marketing, and those with digital marketing.

Result – The findings confirmed that college students who were exposed to cotton digital marketing displayed the highest level of agreement on the benefits of cotton clothing. They also exhibited the most favorable attitudes and strongest purchase intentions toward cotton clothing.

Conclusions – To target Gen Y consumers effectively, marketers should consider a digital marketing strategy to promote their products and services.

Keywords: Digital Marketing, Gen Y Consumers, Cotton Clothing, Consumer Behavior, QR Codes.

JEL Classifications: L81, M31, M37.

1. Introduction

Generation Y (Gen Y hereafter) has emerged as a major consumer force in the marketplace as the spending power of the Baby Boomer has dwindled significantly in recent years (Gardyn, 2002). Gen Y is typically recognized and studied as one consumer segment. However, the age range of Gen Y consumers widely varies (20-year-old to 37-year-old in 2014), which suggests that Gen Y is a heterogeneous consumer segment (Noble et al., 2009). College students among Gen Y are considered to be the most lucrative consumers because of their large spending power, guilt-free spending habit, and ability to influence others' spending (Wolburg & Pokrywczynski, 2001). This consumer group is also known to be difficult to please (Horovitz, 2002). They expect companies to offer customized services and marketing messages in their preferred format and means (Ma & Niehm, 2006). This notion implies that a conventional marketing strategy may not be appropriate for targeting Gen Y college students. However, the previous research on Gen Y has focused on this consumer segment as a whole and lacked in specifically examining college students separated from the entire Gen Y (Noble et al., 2009).

Digital marketing has rapidly become an effective and efficient means to communicate with Gen Y college students. A survey showed that consumers form a better opinion about brands when such brands offer digital marketing experiences (ICEF, 2014). IKEA has launched a Facebook showroom (Moth, 2013), and Target have used social media channels and QR codes to promote its back-to-school campaign to young consumers (Modzelewski, 2013). Although several studies have addressed Gen Y college students' adoption intention of digital marketing (Ryu, 2013; Ryu & Murdock, 2013; Wells et al., 2012), its tangible effects on this consumer group need to be further explored. Therefore, we aim to examine digital marketing effects by comparing the attitudes and behavioral intentions of Gen Y college students who are exposed to digital marketing, print marketing, and no marketing. The marketing message used in this research is designed to identify cotton awareness among Gen Y college students. Since college-age consumers use cotton products on a daily basis but lack adequate knowledge related to cotton products (Hatchett & Williams, 2010), we determined that cotton marketing would be relatively easy to draw their attentions and that their attitude changes would be apparent.

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** School of Family and Consumer Sciences, Texas State University, San Marcos, TX 78666 USA

*** Corresponding Author, Ph.D., Assistant Professor, Department of Interior Design and Fashion Merchandising, TCU Box 298630, Texas Christian University, Fort Worth, TX 76129 USA.
 E-mail: jay.ryu@tcu.edu.

2. Literature review

2.1. Cotton awareness among Gen Y college students

One of the bestselling fabrics that we have today is cotton. Cotton fabric is comfortable because of its excellent breathability, absorbency, and soft touch (Kimbrough, 2008). Cotton takes dye much easier than most fabrics and the care is easy and economical (Broadbent, 2001). The ability to take high ironing temperature and withstand abrasion also makes cotton a durable fabric (Kimbrough, 2008). These traditional benefits of cotton fabric that make it the perfect material to satisfy consumers' apparel needs. The recent innovations in textile production and finishing have greatly increased cotton marketability. Technologies such as Wicking Windows™ and Trans DRY™ for quick drying have improved the demand of cotton in the performance apparel category (Crumbley, 2008).

College students aged 18–25 have been the subjects of many essential research studies to learn about their current awareness, perceptions and attitudes toward cotton and cotton products (Hatchett & Williams, 2010; Jain & Pant, 2010). Studies have found that this consumer segment has low knowledge of the aforementioned benefits of cotton or improvement in cotton properties. The average college student is undecided or unsure about knowing if the clothes they wear were made from cotton (Hatchett & Williams, 2010). They also exhibited poor knowledge of cotton (Jain & Pant, 2010). About 30 percent of the respondents indicated that they disagreed or did not know about cotton's durability and versatility, and a majority of respondents concluded that they were unaware of the benefits of cotton (Hatchett & Williams, 2010). These alarming statistics indicate that the U.S. cotton producers and importers are failing to capture a sizeable market segment of college students and that they may need a more effective marketing strategy to communicate with this consumer segment.

2.2. Digital marketing to Gen Y college students

College students grew up with Internet and various forms of communication media. Marketers label them as media and technology savvy consumers. They are immensely receptive to information available online and love companies which take time to build and cater an advertising direction toward them in a platform they already find familiar and easy to use (Alderton, 2010). Smart marketers have begun to diversify their marketing venues to include digital media in order to stay more relevant to Gen Y college students. For example, Target has successfully launched digital marketing to communicate with college students (Modzelewski, 2013).

Digital marketing has been described as promoting and educating consumers about product, services, and brands using a variety of online media (Williams et al., 2012). It often involves consumer-centered and consumer-generated contents such as videos and blogs. Given the profile of the Gen Y college stu-

dents who are highly engaged in digital marketing (Williams et al., 2012), new advertising mechanisms such as social media have proven effective in increasing consumers' knowledge of and interest in products and services (Bayne & Cianfrone, 2013; di Pietro & Pantano, 2013).

The advancement of wireless technology and the ubiquity of mobile devices among college students encourage companies to consider mobile marketing as a vehicle to deliver digitally created marketing contents (Alderton, 2010). College students are highly responsive to and form positive attitudes toward digital marketing when they can easily access marketing messages using their mobile devices, and perceive the messages to be useful and entertaining (Lee & Cormier, 2010; Ryu, 2013; Ryu & Murdock, 2013). They also tend to adopt mobile marketing when they perceive it positively (Hanley & Boostrom, 2011; Wells et al., 2012). Research shows word-of-mouth formed through mobile marketing favorably affects consumers' attitudes toward products (Zhang et al., 2011) and increases their purchase intentions (Hu et al., 2008). Evidently mobile marketing through social network sites targeting college students has become increasingly popular, as it has a positive impact on their consumption behaviors (Thoene, 2012).

2.3. Hypotheses

Based on the literature review which confirmed Gen Y college students' preference to receive marketing messages via digital media (Ryu, 2013; Ryu & Murdock, 2013; Wells et al., 2012), we propose that cotton awareness marketing using digital media will be an effective way to promote cotton to Gen Y college students. Cotton Incorporated has identified the five cotton benefits (comfort, affordability, style, durability and versatility) that need to be promoted to college students to improve its marketability. Therefore, cotton awareness marketing events used in this research focus on promoting cotton clothing as a comfortable, affordable, stylish, durable, and versatile wardrobe option and enhancing college students' overall attitudes and purchase intentions toward cotton clothing.

To test our propositions, we compared Gen Y college students' levels of agreement, attitudes and purchase intentions among three different groups: (1) the group with no cotton marketing event; (2) the group exposed to cotton marketing events using print media; and (3) the group exposed to cotton marketing events using digital marketing. We posit that the levels of consumer knowledge, attitudes, and behavioral intentions differ depending on the modes of marketing. More specifically, students in Group 3 will have the highest level of agreement on cotton clothing as comfortable, affordable, stylish, durable, and versatile clothing, followed by those in Group 2 and Group 1. Likewise, it is expected that students in Group 3 will exhibit the most favorable attitudes and strongest purchase intentions toward cotton clothing, followed by those in Group 2 and Group 1.

<Hypothesis 1> College students' levels of agreement on the benefits of cotton clothing differ among the three groups Group 3 exhibit the highest level followed by Group 2 and Group 1.

<Hypothesis 2> College students' attitudes toward cotton clothing differ among the three groups; Group 3 exhibit the highest level followed by Group 2 and Group 1.

<Hypothesis 3> College students' intentions to purchase cotton clothing differ among the three groups; Group3 exhibit the highest level followed by Group 2 and Group 1.

Attitude (AT) (Mean = 5.65; SD = 1.04; α = 0.92)						1	0.21
Purchase intention (PI) (Mean = 5.32; SD = 1.01; α = 0.86)							1

3. Method

3.1. Measures

The survey consisted of three sections. The first section of the survey was composed of demographic-related questions such as gender and age. The second section accessed students' level of agreement on comfort, afford ability, style, durability, and versatility of cotton clothing. We developed two-item scales for each property based on Hatchett and Williams's study (2010). For example, for comfort of cotton clothing, "I consider cotton clothing to be comfortable" and "Cotton clothing is comfortable" were used. They wererated on a 7-point Likert-type scale anchored at 1 = strongly disagree and 7 = strongly agree. The Spearman Brown formula was used to test the reliability of these measurement items since it is a preferred method for validating two-item scales (Eisinga et al., 2013). In the third section, students were asked about their attitudes and purchase intentions toward cotton clothing. A three-item semantic differential scale was adapted to examine students' attitude toward cotton clothing (Bluemelhuber et al., 2007). To measure students' purchase intention of cotton clothing, a 7-point Likert type scale consisting of five items was adapted from the previous consumer behavior research (Ko et al., 2009). The measurement reliability results along with the descriptive statistics and correlation matrix of the variables are presented in Table 1.

<Table 1> Correlation matrix a and descriptive statistics (n = 600)

	CC	CA	CS	CD	CV	AT	PI
Cotton comfort (CC) (Mean = 5.87; SD = 0.95; r = 0.79)	1	0.65	0.42	0.60	0.58	0.25	0.57
Cotton affordability (CA) (Mean = 5.56; SD = 1.05; r = 0.83)		1	0.42	0.68	0.69	0.23	0.62
Cotton style (CS) (Mean = 4.95; SD = 1.20; r = 0.79)			1	0.53	0.57	0.15	0.46
Cotton durability (CD) (Mean = 5.45; SD = 1.08; r = 0.78)				1	0.63	0.26	0.62
Cotton versatility (CV) (Mean = 5.25; SD = 1.11; r = 0.74)					1	0.22	0.65

3.2. Data collection procedure and analysis

The study participants were recruited from a large public university in the United States. First, the survey was distributed to 300 randomly selected students on campus before any cotton awareness marketing events. A total of 264 surveys was collected and identified as usable data (Group 1). The second data set was collected from the students who attended cotton awareness marketing events using print media. The marketing events were hosted in various locations on campus (student center, library, baseball stadium, and court yards). During the marketing event, the information about the five cotton properties were disseminated through posters, flyers, and pamphlets and fact sheets posted on promotional items (see Appendix 1). A total of 216 usable data were gathered in this stage (Group 2). The third data set was collected from the students who attended cotton awareness marketing events using digital media. Students were able to access cotton facts and information online and participate in various promotional activities through social network sites (Facebook, Instagram, and Twitter) and QR codes (See Appendix 2). A total of 204 usable data were collected in this stage (Group 3). Those who attended both print marketing events and digital marketing events were asked not to take the survey.

To have an equal number of data per group for data analysis, 200 surveys from each group were randomly selected using SPSS 22. ANOVA was used to test group differences in agreement, attitude and purchase intention among three student groups: no marketing, print marketing, and digital marketing. A Turkey HSD post-hoc test was employed to compare each group's mean score.

4. Results

The overall survey respondents comprised 413 females and 187 males with a mean age of 22.5 years. The characteristics of study participants for each group were also examined. The mean age for the Group 1 was 22.1 years, and its gender composition was 119 females and 81 males. The Group 2 consisted of 137 females and 63 males, and their mean age was 22.7 years. The Group 3 had 157 females and 43 males with a mean age of 22.6 years.

The ANOVA results confirmed that students' levels of agreement on cotton clothing as comfortable clothing [F(2, 597) = 41.73, p< .000], affordable clothing [F(2, 597) = 29.26, p< .000], stylish clothing [F(2, 597) = 55.42, p< .000], durable clothing

[$F(2, 597) = 52.03, p < .000$], and versatile clothing [$F(2, 597) = 57.09, p < .000$] differ significantly across the three groups. We also found a significant difference on the level of consumer attitudes [$F(2, 597) = 90.57, p < .000$] and purchase intentions toward cotton clothing [$F(2, 68.77), p < .000$] for the three groups. Table 2 summarizes the results of ANOVA.

<Table 2> The result of ANOVA

		Sum of Square	df	Mean square	F
Comfort	Between groups	83.46	2	41.73	54.04***
	Within groups	460.99	597	0.83	
	Total	544.45	599		
Affordability	Between groups	58.51	2	29.26	28.96***
	Within groups	603.18	597	1.01	
	Total	661.69	599		
Style	Between groups	110.84	2	55.42	43.90***
	Within groups	753.56	597	1.26	
	Total	864.40	599		
Durability	Between groups	104.06	2	52.03	51.81***
	Within groups	599.54	597	1.04	
	Total	703.60	599		
Versatility	Between groups	114.17	2	57.09	54.46***
	Within groups	625.83	597	1.05	
	Total	740.00	599		
Attitude	Between groups	150.92	2	75.46	90.57***
	Within groups	497.41	597	0.83	
	Total	648.33	599		
Purchase intention	Between groups	114.25	2	57.13	68.77***
	Within groups	495.95	597	0.83	
	Total	610.20	599		

*** Significant at 0.001

Post-hoc comparisons using the Turkey HSD test indicated that Group 3 scored the highest level of agreement on comfort ($M_3 = 6.24, M_2 = 6.01, M_1 = 5.36$), afford ability ($M_3 = 5.91, M_2 = 5.61, M_1 = 5.15$), style ($M_3 = 5.47, M_2 = 4.96, M_1 = 4.42$), durability ($M_3 = 5.96, M_2 = 5.46, M_1 = 4.94$), and versatility ($M_3 = 5.76, M_2 = 5.30, M_1 = 4.69$). Regarding the attitudes, the Group 3 displayed the most favorable attitudes toward cotton clothing ($M_3 = 6.02$), followed by Group 2 ($M_2 = 5.98$) and Group 1 ($M_1 = 4.94$). For consumer intentions to purchase cotton clothing, Group 3 exhibited the highest level ($M_3 = 5.83$), followed by Group 2 ($M_2 = 5.37$) and Group 1 ($M_1 = 4.77$). Therefore, all three hypotheses were supported. Table 3 presents the results of post-hoc mean comparisons.

<Table 3> The post-hoc mean comparisons of three groups

	Group	Mean	SD
Comfort	Group 1 (no marketing)	5.36	0.99
	Group 2 (print marketing)	6.01	0.74
	Group 3 (digital marketing)	6.24	0.88
Affordability	Group 1 (no marketing)	5.15	1.08
	Group 2 (print marketing)	5.61	0.90
	Group 3 (digital marketing)	6.24	0.88
Style	Group 1 (no marketing)	4.42	1.20
	Group 2 (print marketing)	4.96	1.11
	Group 3 (digital marketing)	5.47	1.05
Durability	Group 1 (no marketing)	4.94	1.07
	Group 2 (print marketing)	5.46	1.01
	Group 3 (digital marketing)	5.96	0.92
Versatility	Group 1 (no marketing)	4.69	1.08
	Group 2 (print marketing)	5.30	0.96
	Group 3 (digital marketing)	5.76	1.03
Attitude	Group 1 (no marketing)	4.94	0.73
	Group 2 (print marketing)	5.98	0.35
	Group 3 (digital marketing)	6.02	1.36
Purchase intention	Group 1 (no marketing)	4.77	0.91
	Group 2 (print marketing)	5.37	0.81
	Group 3 (digital marketing)	5.83	1.01

5. Discussion and conclusions

5.1. Summary of findings

Gen Y college students have emerged as a profitable consumer segment because of their growing purchasing power (Wolburg & Pokrywczynski, 2001) and influence on others'

buying decisions (Horovitz, 2002). Marketers have revisited their marketing strategies to identify effective ways to communicate with this important consumer segment. Digital marketing could be one attractive option. Thus, the main focus of this research was to examine the effect of digital marketing on Gen Y college students' perceptions, attitudes and purchase intentions toward cotton clothing compared to that of conventional print marketing and no marketing.

Three groups of research participants completed the survey about cotton benefits (comfort, afford ability, style, durability, and versatility), attitudes and purchase intentions toward cotton clothing. The Group 1 represented Gen Y college students who did not experience any cotton marketing events; the Group 2 represented those who attended cotton marketing events using print media; The Group 3 represented those who attended digital marketing events using digital media. The results of ANOVA analysis confirmed that three groups exhibited statistically significant differences in all three accounts: understanding of cotton benefits, attitudes toward cotton clothing, and intentions to purchase cotton clothing. The mean comparisons showed that out of the three groups, the Group 3, the digital marketing group, exhibited the highest level of agreement in cotton benefits, the most favorable attitudes toward cotton clothing, and the strongest purchase intentions toward cotton clothing.

5.2. Implications

It comes as no surprise that this research discovered the positive effect of marketing events on college students' perceptions, attitudes and behavioral intentions. Gen Y college students actively seek information that helps them make purchase decisions (Noble et al, 2009). Thus, companies should continue to provide them more information about products and services in order to influence their opinions and behaviors through effective marketing strategies. The findings also confirm that Gen Y college students are more receptive to digital marketing compared to conventional marketing. We observed that college students more willingly participated in various marketing activities available online and accessible via their mobile phones. Consequently, they recognized and understood the benefits of cotton clothing better when the information was presented in digital formats such as mobile-enabled QR codes and contents linked to social media than in conventional print formats such as posters and flyers. Thus, digital media appear to be a logical option for conveying the marketing messages to the consumer segment of Gen Y college students. Companies should revamp their marketing strategies to include various digital media platforms when delivering marketing messages in order to create "digital buzz" about their products and services. Just as word of mouth has a major influence on consumer behavior (Lam et al., 2009), electronic word-of-mouth generated by digital marketing may have a significant impact on the behavior of Gen Y college students who are digital media savvy (Crumbley, 2008).

Regarding marketing contents, companies should create more interactive and experiential digital marketing messages. The participants of the cotton marketing events in this research displayed a high level of involvement when the marketing activities were interactive and experiential. This result suggests that companies need to update their static marketing messages to live and spontaneous marketing messages, which are more suitable for digital media platforms, in order to stay relevant with Gen Y college students. Mobile marketing communications using QR codes are especially effective when targeting college students who enjoy a mobile lifestyle (Ryu, 2013; Ryu & Murdock, 2013). Research shows that an entertaining learning environment improves student learning (Hromek & Reffey, 2009). As the QR code is considered a 'convenient form of entertainment' (Grant & O' Donohoe, 2007), QR code-based mobile marketing may be particularly useful when marketing is intended for educating consumers and disseminating valuable product and service information to them.

5.3. Limitations and future research

With companies beginning to implement digital marketing strategies to communicate with college-aged consumers, they should not neglect the differences may exist within the consumer segment of Gen Y college students. Because this research used the data collected from students of one university, caution should be taken to apply the findings to other Gen Y college

students. The level of consumer involvement in marketing may vary depending on the modes of marketing communications, which could in turn affect the magnitude of marketing effects on consumers. Controlling this aspect could improve the generalization of the research findings. Also, the marketing messages used in this research were specifically designed to improve cotton awareness among college students. Digital and conventional marketing in other contexts may yield different outcomes.

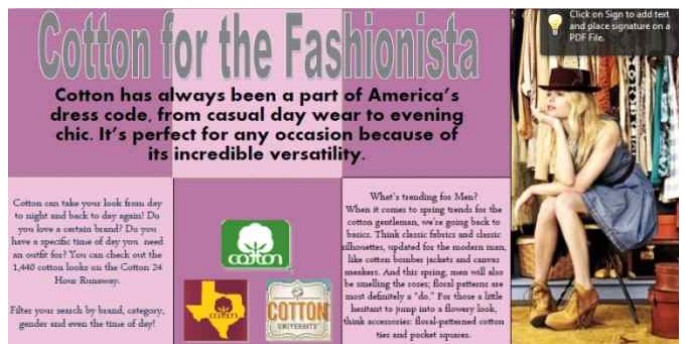
Future research could recruit Gen Y college students with different demographic backgrounds to investigate the diversity within the Gen Y consumer group or compare how different digital marketing channels (e.g., social media, QR codes) influence consumer shopping behaviors. Future research could also investigate the interrelationships among cotton benefits and how they affect consumers concurrently.

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<Appendix 1> Example of cotton awareness marketing using print media



<Appendix 2> Examples of cotton awareness marketing using digital media and QR code

