

Original Paper

Spam E-mail Advertisements for Cosmetics / Beauty Products and Consumer Behavior

Joshua Fogel^{1*} and Viju Raghupathi¹

¹ Department of Finance and Business Management, Brooklyn College, Brooklyn, NY, USA

* Joshua Fogel, E-mail: joshua.fogel@gmail.com

Abstract

Consumers receive spam e-mail solicitations for cosmetics and beauty products. We analyze responses from 200 college students with regard to opening and reading this spam e-mail and also clicking through and purchasing the product advertised in this spam e-mail. With regard to opening and reading spam email about cosmetics/beauty products, women and also increasing scores for learning more information online about cosmetics/beauty products were both significantly associated with increased odds for opening and reading this spam e-mail. With regard to purchasing the cosmetics/beauty product advertised in the spam e-mail, increasing scores for trust in the Internet to provide accurate information about cosmetics/beauty products was significantly associated with increased odds for purchasing. Marketers who use ethical approaches and are interested in sending e-mail information to prospective college student customers about cosmetics/beauty products should keep in mind the importance of conveying trust.

Keywords

spam e-mail, trust, consumer behavior; cosmetics, beauty products

1. Introduction

According to the Beauty Retailing USA 2010 report, e-commerce sales in the beauty industry increased by 25.4% between the years 2005 to 2010 (Household and Personal Products Industry, 2011). E-commerce from beauty products is estimated to be 3 billion dollars in sales and 4.5% of e-commerce sales in the United States in 2011 (Ben-Shabat & Gada, 2012). The average annual amount spent per woman on purchasing beauty products on the Internet is US\$86. (NPD Group, 2009). One survey of the shopping behaviors of United States online consumers found that 59% purchased beauty and personal care products online. The most common product purchased either frequently or sometimes was skin care (64%). Other common products purchased either frequently or sometimes by more than 30% of consumers included hair care, color cosmetics, fragrances, personal care, and tools (Ben-Shabat

& Gada, 2012). Approximately 77% of beauty and health consumers look for different products online than in a brick-and-mortar store, and 48% report that they would purchase more online if allowed to return the product to a brick-and-mortar store (Hilal, 2011).

Women are a market segment potentially interested in beauty products available for sale online. In the United States, 27% of women purchase cosmetics online (Chein, 2012). In a study of women between the ages of 18 and 35 years living in the UK, 63% expected to purchase more health and beauty products online in the next year. Among women, social media use is associated with an increased likelihood to purchase beauty products online (Brandbank, 2012).

Advertising can be used to increase interest in the e-commerce marketplace and that can also lead to consumer purchases. Spam e-mail is one approach used to advertise products in the e-commerce marketplace. Spam e-mail is defined as unsolicited e-mail that is sent to many recipients (Christina, Karpagavalli, & Suganya). Spam e-mail is a venue often used to advertise and sell a number of products including cosmetics and beauty products. There are some studies on opening and reading spam e-mail advertisements and also purchasing from spam e-mail advertisements (Fogel, 2011; Fogel & Pollack, 2012; Fogel & Yarmish, 2012), although we are not aware of any such studies that focus on cosmetics and beauty products. Variables studied with regard to opening and reading spam e-mail advertisements and also purchasing from spam e-mail advertisements include previously purchasing from a fraudulent e-mail, interest in learning more online about the advertised product, and trust in the vendor selling the advertised product. There are three studies that report that previously purchasing from a fraudulent e-mail is significantly associated with increased odds for opening and reading spam e-mail advertisements on gambling products (Fogel, 2011), computer software products (Fogel & Yarmish, 2012), and work from home products (Fogel & Pollack, 2012). However, all three studies do not report any association of previously purchasing from a fraudulent e-mail with regard to purchasing from the current spam e-mail advertisement (Fogel, 2011; Fogel & Pollack, 2012; Fogel & Yarmish, 2012). There are mixed results with regard to learning more information online about a product and with either opening and reading spam e-mail about a product or purchasing from the current spam e-mail advertisement. Gambling products (Fogel, 2011) and computer software products (Fogel & Yarmish, 2012) have increased odds for both opening and reading spam e-mail about a product and purchasing the advertised product. However, there is no association for work from home products for either opening and reading spam e-mail about a product or purchasing the advertised product (Fogel & Pollack, 2012).

There are mixed results with regard to trust in the vendor selling the advertised product through spam e-mail and both opening and reading spam e-mail about a product or purchasing the advertised product. Increased trust is associated with increased odds for opening and reading spam e-mail about a gambling product. However, there is no association with purchasing the gambling product (Fogel, 2011). Increased trust is not associated with opening and reading spam e-mail about work from home products.

However, increased trust is associated with increased odds for purchasing the work from home product (Fogel & Pollack, 2012). Increased trust is not associated with both opening and reading spam e-mail about computer software products and also purchasing the computer software product (Fogel & Yarmish, 2012).

The theoretical basis for this study is the importance of trust with regard to consumer online purchases. In brick-and-mortar retail sales, consumer trust is dependent on factors of salesperson's expertise, likeability, and similarity to the customer. In online sales, there is no physical entity of a human salesperson and instead there may be a help button. Cultivating online consumer trust can be more challenging than by brick-and-mortar retail consumers. Furthermore, there are many trust related concerns that prevent consumers from purchasing online. This can include fear of fraud, privacy concerns, lack of trust in the technologies for secure payment online, and a general lack of trust in e-commerce (Dolatabadi & Ebrahimi, 2010). Consumer trust has a positive impact on purchase intentions with greater trust associated with greater purchase intentions (Ling, bin Daud, Piew, Keoy, & Hassan, 2011).

We are not aware of any studies on the topic of purchasing cosmetics/beauty products from spam e-mail. We study two topics related to purchasing cosmetics/beauty products from spam e-mail. First, we study variables associated with opening and reading spam e-mail on the topic of purchasing cosmetics/beauty products. Second, we study variables associated with purchasing cosmetics/beauty products advertised in the spam e-mail. We include in our multivariate analyses relevant variables including demographics and Internet consumer attitudes.

2. Method

2.1 Participants and Procedures

We surveyed 200 individuals who were students at a four-year inner city college located in New York City. We used convenience sampling to obtain the data where we surveyed participants in classrooms, the cafeteria, and other public places at the college. There was a response rate of 94.3% [$200/212 * 100\%$]. Data were collected in May 2007. This anonymous survey approach was exempt from Institutional Board Review. The survey was conducted in an ethical manner consistent with the ethical principles of the Declaration of Helsinki. We obtained informed consent from all participants.

2.2 Measures

Demographic Items

The demographic variables were age (years), sex (man/woman), and self-reported race/ethnicity (white/non-white).

Internet Items

The Internet items were number of hours of Internet use (daily) and number of spam e-mails received (daily). Also, a question of "Have you ever responded to an e-mail offer only to find out later it was

phony or fraudulent?” was used from a previous survey (Rainie & Fallows, 2004).

Internet Attitude Items

Two Likert-style scale items were created for this survey. Each item is measured with a Likert-style scale that ranges from 1=strongly disagree to 5=strongly agree. One item was, “I would like to learn more information online about cosmetics/beauty products.” The other item was, “I trust the Internet to provide me with accurate information about cosmetics/beauty products.”

Outcome Variables

These items were: 1) did you open and read spam e-mail about cosmetics/beauty products in the past year?, and 2) If you opened and read the e-mail, did you purchase anything from the website provided?

2.3 Statistical Analyses

Descriptive statistics were calculated for the all the variables with mean and standard deviation for the continuous variables and percentage and frequency for the categorical variables. Inferential statistics of logistic regression was used for the two outcome variables of opening/reading spam e-mail on cosmetics/beauty products and purchasing cosmetics/beauty products advertised in the spam e-mail. Predictors included demographic items, Internet items, and Internet attitude items. All tests were two-sided with an alpha level of 0.05. All analyses were performed with IBM SPSS Statistics Version 19 (IBM, 2010).

3. Result

Table 1 shows the descriptive statistics of the sample. Average age was almost 21 years. Almost two-thirds were women and more than half were non-white. Participants used the Internet on average for almost four hours. Average spam e-mails received daily were more than 28. Almost one-quarter had previously responded to a fraudulent e-mail. The attitude items for “learn more information online about cosmetics/beauty products” and also “trust the Internet to provide accurate information about cosmetics/beauty products” both had average scores between disagree and neutral. Slightly more than one-quarter opened and read the spam e-mail on cosmetics/beauty products. Slightly more than one-tenth purchased from the product advertised in the spam e-mail on cosmetics/beauty products.

Table 1. Descriptive statistics of the sample of 200 individuals

Variables	Mean (SD)	Percentage (Frequency)
Age (years)	20.9 (1.99)	
Sex		
Men		35.5% (71)
Women		64.5% (129)
Race/ethnicity		
White		43.5% (87)

Non-white	56.5% (113)
Internet hours (daily)	3.9 (2.45)
Spam e-mails received (daily)	28.2 (61.86)
Responded to fraudulent e-mail	
No	75.5% (151)
Yes	24.0% (48)
Missing	0.5% (1)
Learn more information online about cosmetics/beauty products	2.6 (1.26)
Trust the Internet to provide accurate information about cosmetics/beauty products	2.6 (1.20)
Opened and read spam e-mail on cosmetics/beauty products	27.5% (55)
Purchased from product advertised in spam e-mail on cosmetics/beauty products	11.0% (22)

Note: SD=standard deviation

Table 2 shows the logistic regression analyses for opening and reading spam e-mail on cosmetics/beauty products. Women had significantly greater odds than men for opening/reading spam e-mail on cosmetics/beauty products. Also, increasing scores for the item of learn more information online about cosmetics/beauty products was significantly associated with opening/reading spam e-mail on cosmetics/beauty products. None of the other variables were significantly associated with opening/reading spam e-mail on cosmetics/beauty products.

Table 2. Logistic regression analyses for opening and reading spam e-mail on cosmetics/beauty products

Variables	OR (95% CI)	p-value
Age	1.05 (0.87, 1.28)	0.60
Sex		0.001
Men	1.00	
Women	5.88 (0.55, 2.54)	
Race		0.74
White	1.00	
Non-white	1.14 (0.53, 2.48)	
Hours Internet	0.89 (0.75, 1.06)	0.19
Number of spam e-mails	1.01 (1.00, 1.02)	0.19
Previous response to fraudulent e-mail	1.30 (0.54, 3.12)	0.56
Learn more information online about cosmetics/beauty products	2.25 (1.42, 3.54)	0.001

Trust the Internet to provide accurate information about cosmetics/beauty products 1.17 (0.74, 1.85) 0.51

Note: OR=odds ratio, CI=confidence interval

Table 3 shows the logistic regression analyses for purchasing the product advertised in the spam e-mail on cosmetics/beauty products. Only increasing scores for the item of trust the Internet to provide accurate information about cosmetics/beauty products was significantly associated with purchasing the product advertised in the spam e-mail on cosmetics and beauty products. None of the other variables were significantly associated with purchasing the product advertised in the spam e-mail on cosmetics/beauty products.

Table 3. Logistic regression analyses for purchasing from spam e-mail on cosmetics/beauty products

Variables	OR (95% CI)	p-value
Age	1.03 (0.79, 1.33)	0.85
Sex		0.09
Men	1.00	
Women	3.19 (0.82, 12.40)	
Race		0.11
White	1.00	
Non-white	0.43 (0.16, 1.19)	
Hours Internet	0.99 (0.79, 1.24)	0.92
Number of spam e-mails	1.00 (0.995, 1.01)	0.84
Previous response to fraudulent e-mail	1.23 (0.41, 3.73)	0.71
Learn more information online about cosmetics/beauty products	1.46 (0.82, 2.63)	0.20
Trust the Internet to provide accurate information about cosmetics/beauty products	1.92 (1.03, 3.59)	0.04

Note: OR=odds ratio, CI=confidence interval

4. Discussion

We found that women have increased odds for opening and reading spam email about cosmetics/beauty products. Also, increasing scores for learning more information online about cosmetic products is significantly associated with increased odds for opening and reading spam email about cosmetics/beauty products. With regard to purchasing the cosmetics/beauty product advertised in the spam email, increasing scores for trust the Internet to provide accurate information showed significant increased odds for purchasing.

We found that women have increased odds for opening and reading spam email about cosmetics/beauty

products. Women have greater scores than men on measures of appearance-related attitudes and behaviors including clothing concerns, public body consciousness, and cosmetic surgery attitudes (Burton, Netemeyer, & Lichtenstein, 1994). It is quite logical to expect greater interest for women than men to open and read spam email about cosmetics/beauty products.

We found that increasing scores for learning more information online about cosmetic/beauty products is significantly associated with increased odds for opening and reading spam email about cosmetics/beauty products. This finding is similar to the literature on opening and reading spam e-mail for gambling products (Fogel, 2011) and computer software products (Fogel & Yarmish, 2012) where interest in learning more information online is associated with increased odds for opening and reading spam e-mail on these products. However, this differs from the findings for work from home products where interest in learning more information online has no significant association for opening and reading spam e-mail (Fogel & Pollack, 2012). This pattern of interest in learning more information online and an association with increased odds for opening and reading spam e-mail may be a common experience with consumer goods whether computer software products, cosmetic/beauty products, or even gambling products. However, work from home products are not a consumer good but rather a service and service advertisements through spam e-mail may not attract those with an interest in learning more information online to open and read such spam e-mail advertisements.

We found that increasing scores for trust in the Internet to provide accurate information had significantly increased odds for purchasing cosmetics/beauty products. Trust is a known factor associated with online purchasing (Hsiao, Lin, Wang, Lu, & Yu 2010). However, previous studies for purchasing consumer goods such as gambling products (Fogel, 2011) and computer software products (Fogel & Yarmish, 2012) through spam e-mail advertisements do not report any association of trust with purchasing behavior. It is possible that unlike gambling products and computer software products that are general consumer goods, cosmetics/beauty products are directly applied onto one's body and can potentially affect one's health. This requires an extra level of trust from the consumer before purchase and once trust is obtained it leads directly to a purchase.

There are some limitations to our study. First, our sample is based on students from a single college and may not generalize to students from other colleges. Second, we analyzed trust as a general concept and did not investigate the different dimensions of trust such as cognitive and affective trust. Future research should consider the impact of these dimensions of trust on consumer purchases and spam e-mail. Third, in terms of age, our sample consists of college-age students, and therefore our results may not be generalizable to different age groups. Fourth, the study did not specify a particular kind of beauty or cosmetic product. Future research can analyze if the type of cosmetics/beauty product has a differential impact on opening and reading spam e-mail or for purchasing from spam e-mail.

In conclusion in our study of college students, women and also an interest in learning more information online are both independently associated with the behavior of opening and reading spam e-mail on

cosmetics/beauty products. Also, trust in the online advertised information is associated with increased purchasing from advertisements. While we do not advocate dissemination of spam, we propose that marketers who are interested in sending e-mail information to customers about cosmetics/beauty products should keep in mind the importance of conveying trust using various approaches so as to translate advertising into consumer purchasing behavior.

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