



# Journal of Internet Banking and Commerce

*An open access Internet journal (<http://www.arraydev.com/commerce/jibc/>)*

*Journal of Internet Banking and Commerce, August 2012, vol. 17, no.2  
(<http://www.arraydev.com/commerce/jibc/>)*

## Consumers and Computer Software Advertisements in Spam E-mail

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### Abstract

Spam e-mail inundates inboxes. Little is known about consumer responses to spam e-mail advertising computer software products. We conducted a study among 200 college students to determine variables associated both with opening/reading spam e mail about

computer software products and with purchasing these items. With regard to opening/reading, we found that increasing age (OR:1.22, 95% CI:1.02, 1.47;  $p=0.03$ ), previously responding to fraudulent e-mail (OR:2.91, 95% CI:1.31, 6.46;  $p=0.01$ ), and wanting to learn more information online about computer software (OR:1.72, 95% CI:1.12, 2.64;  $p=0.01$ ) had significant associations. With regard to purchasing, we found that wanting to learn more information online about computer software had a significant association (OR:2.47, 95% CI:1.32, 4.60;  $p=0.01$ ) and previously responding to fraudulent e-mail approached significance (OR:2.55, 95% CI:0.99, 6.58;  $p=0.052$ ). Ethical e-mail advertisers would benefit when advertising computer software products to include in the e-mail relevant information about learning more information online about computer software. This can encourage the recipient to click-through and purchase the advertised computer software product.

**Keywords: electronic mail; college students; consumers; computers; software; marketing; e-commerce**

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## INTRODUCTION

Spam e-mail inundates user inboxes. The Messaging Anti-Abuse Working Group reports that in 2010-2011, abusive unwanted e-mail was 88% to 90% of e-mail (Messaging Anti-Abuse Working Group, 2011). Not all spam e-mail is viewed in inboxes, as spam filters can block many spam e-mails. Even with the presence of spam filters, approximately 19% of e-mail messages delivered to corporate users' inboxes are spam e-mail (Radicati & Hoang, 2011). A spam survey by Symantec reports that 17% to 18% of spam e-mail consists of product solicitations, not including those for health products (Symantec, 2010). Also, spam e-mail solicitations for computer software products consists of 2.5% of spam e-mail (Panda Security, 2009).

### *Age*

Age has different relationships with consumer purchase perceptions. In a study of a sample of three different age groups of less than 35 years, 35 to 50 years, and greater than 50 years, for the 15 items studied, there were statistically significant differences for 6 of the items. There was a pattern for 5 of 6 items that those from the greater than 50 years group perceived greater levels of major problems than those from either 35 to 50 years or less than 35 years. These problems included topics such as sellers seek information, ordering too slow, and delivery too slow (Passyn, Diriker, & Settle, 2011). In a study from France and Germany, increasing age was significantly associated with lower confidence in using online products and also lower confidence in conducting e-commerce (Sun, 2011). On the other hand, in a national United States sample of those from different market segment age groups, there was no significant association of age with the belief that purchasing online saves money (Punj, 2011).

### *Sex*

Sex is an important variable to consider with regard to online purchasing behavior. One

study of college students found that men had a greater percentage of shopping online as compared to women (Ozdemir & Kilic, 2011). However, a different nationally representative United States study found that women have a greater likelihood of purchasing online than men (Hannah & Lybecker, 2010). Also, a study of college student intentions for purchasing products online found that for products without reviews and also products with negative reviews, men had greater purchase intentions than women. However, for products with positive reviews, women had greater purchase intentions than men (Bae & Lee, 2011). Another study of college students found that sex preferences for purchasing online typically depend upon the types of products purchased. Men preferred to purchase products such as books, personal computers, cell phones, and televisions. Women preferred to purchase products such as clothing and perfume. There were no sex differences for preference for purchase of products such as vitamins and water purifiers (Girard, Korgaonkar, & Silverblatt, 2003).

#### *Race/ethnicity*

Race/ethnicity is an important variable to consider with regard to online purchasing behavior. A survey of online shopping Internet security preferences found significant differences between Hispanics and non-Hispanic Whites. Hispanics rated as more important than non-Hispanic Whites a well-known site name, an encrypted payment approach, the existence of a brick and mortar stores outside driving distance, and the availability of a return policy (Changchit, Garofolo & Gonzalez, 2009). A study of college students found that non-Hispanic Whites had greater online purchasing frequency and dollar amounts spent than Hispanics after adjusting for relevant covariates of age, sex, education, and income (Lassar, Manolis & Nicholls, 2005). On the other hand, there were no significant differences between Whites, Hispanics, and Blacks with regard to price paid for purchasing a car online after viewing an online car referral service (Morton, Zettelmeyer & Silva-Risso, 2003).

#### *Internet Hours and Internet Purchases*

One panel data study of 100,000 households found that increased length of time on a particular website was associated with increased click-through purchase rates from that website (Lin, Hu, Sheng & Lee, 2010). Also, a survey of college students found that increased pre-purchase browsing time was associated with increased online buying frequency (Kim & Eastin, 2011). On the other hand, in another study of college students, number of hours of Internet use was only associated with purchasing one type of designer clothing online while for the other 11 types of designer clothing there was no significant association for purchasing online (Fogel & Schneider, 2010).

#### *Trust and Internet Purchases*

Surveys from college students report that increased online trust is associated with increased online purchase intentions (Ganguly, Dash, & Cyr, 2009; Ling, Chai, & Piew, 2010). Also, a survey of college students found that increased credibility of product information provided by other online consumers was significantly associated with increased online buying frequency (Kim & Eastin, 2011). Another study of college students from both Finland and the United States found that for students from the United States, higher levels of trust were associated with higher levels of online purchases. The students from Finland did not have any association of trust with online purchases (Comegys, Hannula & Vaisanen, 2009).

### *Computer Product Purchases Online*

In general, men spend more time online than women in viewing websites advertising computers and consumer electronics (Bricolo, Gentile, Smelser, & Serpelloni, 2007). With regard to purchasing computer products online, a national Australian survey studied variables associated with purchasing computer products online. With regard to computer hardware and peripherals, men, higher income levels, and managerial or professional occupation were significantly associated with purchase. However, age, marital status, education, household size, English country of birth, and English language skills were not significantly associated with purchase. With regard to computer software, men, higher income levels, higher education levels, and managerial or professional occupation were significantly associated with purchase. However, age, marital status, household size, English country of birth, and English language skills were not significantly associated with purchase (Naseri & Elliot, 2011). Another study of predictors of online purchases of computer-related products and services found that men and increasing household income were significantly associated with purchase while age and education were not significantly associated with purchase (Kwak, Fox, & Zinkhan, 2002).

### *Internet Purchases with Regard to Spam Advertising*

Studies on purchasing from spam e-mail advertisements mostly focus on health and sexual interest topics. For the health topics, studies for weight problems (Fogel & Shlivko, 2010a) and sexual performance problems (Fogel & Shlivko, 2009) found that those with these particular health conditions were more likely than those without these health condition to purchase from spam e-mail advertising remedies for these health conditions. For the sexual interest topics, with regard to pornography, studies found that those with sexual performance problems (Fogel & Shivko, 2010b) and also those single and seeking a relationship (Fogel & Shlivko, 2010c) were those more likely to purchase from spam e-mail advertising pornography. Also, those single and seeking a relationship were those more likely to purchase from spam e-mail advertising romantic relationships/matchmaking topics (Fogel & Shlivko, 2010d).

Besides the health and sexual interest topics, three studies focus on either purchasing or responding to spam e-mail advertisement topics. Previously responding to a fraudulent e-mail was associated with opening/reading e-mail on working from home topics. Trust in the Internet to provide accurate information about working from home was associated with purchasing the working from home product advertised in the spam e-mail (Fogel & Pollack, 2012). An interest in learning online how to authenticate accounts was associated with acting in response to an e-mail asking about authenticating an online account (Fogel, 2012). Previously responding to a fraudulent e-mail, an interest in learning more about online gambling, and trusting the Internet to provide accurate information about online gambling were each associated with opening/reading e-mail on online gambling. However, with regard to clicking through on the weblink, only an interest in learning more about online gambling was associated with clicking-through and gambling at the online gambling website advertised in the spam e-mail (Fogel, 2011).

### *Study Aims*

We are not aware of any studies on the topic of purchasing computer software products from spam e-mail. We study two topics related to purchasing computer software products from spam e-mail. First, we study variables associated with opening and

reading spam e-mail on the topic of purchasing computer software products. Second, we study variables associated with purchasing computer software products advertised in the spam e-mail. We include in our multivariate analyses relevant variables including demographics and Internet consumer attitudes.

## **METHOD**

### *Participants and Procedures*

There were 200 participants who were students at a four-year inner city college located in New York City in the United States. Convenience sampling was used to obtain the data with a response rate of 94.3% [200/212 \* 100%]. Participants were surveyed in classrooms and other public places at the college. All data were obtained in May 2007. The anonymous survey was exempt from Institutional Board Review. It was conducted in an ethical manner according to the ethical principles of the Declaration of Helsinki. Informed consent was obtained from all participants.

### *Measures*

#### *Demographic Items*

Demographic variables included age measured in years, sex, and race/ethnicity measured by self-report and categorized as white versus non-white.

#### *Internet Items*

Internet items included questions about the number of daily hours of Internet use and the 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 computer software." The other item was, "I trust the Internet to help me find computer software."

#### *Outcome Variables*

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

#### *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. Logistic regression was used for the two outcome variables of opening/reading spam e-mail on computer software and purchasing computer software 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).

## RESULTS

Table 1 describes the sample characteristics. The mean age was almost 21 years. Slightly less than two-thirds were women. There were almost similar percentages of whites and non-whites with slightly more non-whites. Participants spent an average of about 4 hours daily using the Internet and received a mean of about 28 spam e-mails daily. Almost one quarter had previously responded to a fraudulent e-mail, approximately 29% opened or read spam e-mail specifically about computer products and 14% purchased from these spam e-mails about computer products. The two attitude items of learn more information online and trust Internet had average scores indicating neutral attitudes.

**Table 1: Descriptive statistics of 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		24.0% (48)
Learn more information online about computer software.	2.9 (1.25)	
Trust Internet to help find computer software	3.0 (1.31)	
Opened/read spam e-mail about computer products		28.5% (57)
Purchased from spam e-mail about computer products		14.0% (28)

Note: SD=standard deviation

Table 2 reports the logistic regression analyses for opening and reading spam e-mail about computer software. Increasing age, previously responded to an offer from a fraudulent e-mail, and the Internet attitude of learn more information online about computer software were all significantly associated with increased odds for opening and reading spam e-mail about computer software.

**Table 2: Logistic Regression for Opened and Read Spam E-mail about Computer Software Products**

Variables	OR (95% CI)	p-value
Age (years)	1.22 (1.02, 1.47)	0.03
Sex		0.67

Men	1.00	
Women	0.85 (0.41, 1.79)	
Race/ethnicity		0.76
White	1.00	
Non-white	1.12 (0.54, 2.33)	
Internet hours (daily)	1.01 (0.87, 1.18)	0.86
Spam e-mails received (daily)	1.01 (1.00, 1.01)	0.13
Responded to fraudulent e-mail	2.91 (1.31, 6.46)	0.01
Learn more information online about computer software.	1.72 (1.12, 2.64)	0.01
Trust Internet to help find computer software	1.15 (0.78, 1.72)	0.48

Note: OR=odds ratio, CI=confidence interval

Table 3 reports the logistic regression analyses for purchasing from spam e-mail about computer software. The Internet attitude of learn more information online about computer software was significantly associated with increased odds for purchasing spam e-mail about computer software. Also, previously responded to an offer from a fraudulent e-mail approached significance ( $p=0.052$ ) with increased odds for purchasing spam e-mail about computer software.

**Table 3: Logistic Regression for Purchased from Spam E-mail about Computer Software Products**

Variables	OR (95% CI)	p-value
Age (years)	1.13 (0.90, 1.41)	0.29
Sex		0.66
Men	1.00	
Women	1.23 (0.48, 3.17)	
Race/ethnicity		0.86
White	1.00	
Non-white	0.92 (0.36, 2.36)	
Internet hours (daily)	1.00 (0.83, 1.21)	0.97
Spam e-mails received (daily)	1.00 (1.00, 1.01)	0.26
Responded to fraudulent e-mail	2.55 (0.99, 6.58)	0.052
Learn more information online about computer software	2.47 (1.32, 4.60)	0.01
Trust Internet to help find computer software	0.96 (0.56, 1.66)	0.89

Note: OR=odds ratio, CI=confidence interval

## DISCUSSION

We found that increasing age, previous response to a fraudulent e-mail only to find out later it was phony or fraudulent, and an interest to learn more information online about computer software were significantly associated with increased odds for opening and

reading spam e-mail about computer software products. We also found that an interest to learn more information online about computer software was significantly associated with increased odds for purchasing from spam e-mail about computer software products. Previous response to a fraudulent e-mail only to find out later it was phony or fraudulent approached significance with increased odds for purchasing from spam e-mail about computer software products.

#### *Demographic Items*

We found that increasing age was associated with opening/reading the spam e-mail but not with purchasing spam e-mail advertising computer software products. Our finding for opening/reading is different from a study on opening/reading spam e-mail for gambling advertisements among college students where age did not have any significant association (Fogel, 2011). We suggest that computer software becomes of increasing interest to college students as they become older within that restricted young adult age range. This is why there was a significant association for opening/reading spam e-mail advertising computer software products. Our non-significant finding for age for purchasing from spam e-mail advertising computer software products is similar to other studies that show no relationship of age to purchasing work from home products (Fogel & Pollack, 2012) and online gambling (Fogel, 2011).

For both opening/reading and purchasing from spam e-mail advertising computer software products we did not find any significant association for either sex or race/ethnicity. This is similar to other studies on purchasing work from home products (Fogel & Pollack, 2012) and either opening/reading or purchasing for online gambling (Fogel, 2011) which did not find any significant association for either sex or race/ethnicity.

#### *Internet Items*

We found a significant association for opening/reading from spam e-mail advertising computer software products of increased odds from those who previously responded to a fraudulent e-mail only to find out later it was phony or fraudulent. We also found for purchasing from spam e-mail advertising computer software products that this approached significance ( $p=0.052$ ) for increased odds for those who previously responded to a fraudulent e-mail only to find out later it was phony or fraudulent. The finding for opening/reading is similar to other studies on work from home products (Fogel & Pollack, 2012) and online gambling (Fogel, 2011) where a significant association of increased odds occurred for those who previously responded to a fraudulent e-mail only to find out later it was phony or fraudulent. However, our findings for purchasing differs from other studies on work from home products (Fogel & Pollack, 2012) and online gambling (Fogel, 2011) where no significant findings occur for purchasing from spam e-mail advertising those products among those who previously responded to a fraudulent e-mail only to find out later it was phony or fraudulent. We suggest that computer software products may be of more interest to college students who enjoy engaging in computer software and also are required to use it for their coursework than work from home products or online gambling and therefore college students are more likely to purchase from spam e-mail advertising computer software products.

We did not find any significant association for either Internet hours used daily or number of spam e-mails received daily for both opening/reading and purchasing from spam e-



mail advertising computer software products. This is similar to other studies on spam e-mail for purchasing work from home products (Fogel & Pollack, 2012) and either opening/reading or purchasing for online gambling (Fogel, 2011) which did not find any significant association for either Internet hours used daily or number of spam e-mails received daily.

#### *Internet Attitude Items*

We found that those who would like to learn more information online about computer software were significantly more likely to open/read spam e-mail about computer software and also to purchase the product advertised in it. This is similar to a study on spam e-mail for online gambling which found that interest in learning about online gambling was significantly associated with both opening/reading and purchasing from spam e-mail about online gambling (Fogel, 2011). However, our study differs from a study on spam e-mail for work from home products which did not find any significant association for either opening/reading or purchasing from spam e-mail on work from home products (Fogel & Pollack, 2012). We suggest that this difference occurs because purchasing for computer software products or online gambling is not associated with any extensive behavioral activity while work from home products involves some extensive behavioral activity once one would decide to engage in the work form home job opportunity.

We did not find any significant association of one's trust in the Internet to help find computer software with either opening/reading or purchasing from spam e-mail advertising computer software products. Our lack of a significant association for trust and purchasing is similar to spam e-mail for online gambling where trust was not associated with purchasing the online gambling product (Fogel, 2011). However, it differs from a study of spam e-mail for purchasing from work from home products where trust was significantly associated with purchasing the work from home product. We suggest that a work from home product involves more extensive behavioral activity once one would decide to engage in the work form home job opportunity and someone would only purchase the advertised product if they had a level of trust in the product.

#### *Limitations*

There are a number of study limitations. First, this is only from one college and may not generalize to all other colleges. Second, we did not specify the particular type of computer software product advertised in the spam e-mail. Future research should study whether particular computer software products are more or less likely for consumers to respond to spam e-mail advertisements about them.

## **CONCLUSIONS**

In conclusion, we found that previous response to a fraudulent e-mail only to find out later it was phony or fraudulent and also an interest in learning more information online about computer software were associated with opening/reading and purchasing from spam e-mail advertising computer software products. There is an interest among college students for computer software products. Ethical e-mail advertising should target this market segment. As part of the e-mail, relevant information about learning more information online about computer software should be included about the

advertised product to encourage the recipient to click-through and purchase the advertised computer software product.

## REFERENCES

- Bae, S., & Lee, T., (2011). Gender differences in consumers' perception of online consumer reviews. *Electronic Commerce Research*, 11(2), 201-214.
- Bricolo, F., Gentile, D. A., Smelser, R. L., & Serpelloni, G. (2007). Use of the computer and Internet among Italian families: First national study. *CyberPsychology & Behavior* 10(6), 789-797.
- Changchit, C., Garofolo, T. & Gonzalez, J. (2009). A cultural study of e-commerce trust: Hispanic versus Anglo. *Journal of Information Science and Technology* 6(4), 34-47.
- Comegys, C., Hannula, M. & Vaisanen, J. (2009). Effects of consumer trust and risk on online purchase decision-making: A comparison of Finnish and United States students. *International Journal of Management* 26(2), 295-308.
- Fogel, J. (2011). Consumers and Internet gambling advertisements in spam e-mail. *Romanian Journal of Marketing*, Issue 4, 2-8.
- Fogel, J. (2012). Account information requests from e-mail. *Journal of the CPA Practitioner*, 4(1), 6-8.
- Fogel, J., & Pollack, L. L. (2012). Consumers and teleworking advertisements in spam e-mail. *International Journal of Electronic Marketing and Retailing*, 5(1), 48-62.
- Fogel, J. & Schneider, M. (2010). Understanding designer clothing purchases over the Internet. *Journal of Fashion Marketing and Management*, 14(3), 367-396.
- Fogel, J., & Shlivko, S. (2009). Consumers with sexual performance problems and spam e-mail for sexual performance products. *Journal of Internet Banking and Commerce*, 14(1). Retrieved May 4, 2012 from <http://www.arraydev.com/commerce/JIBC/2009-04/Fogel1.pdf> .
- Fogel, J., & Shlivko, S. (2010a). Weight problems and spam e-mail for weight-loss products. *Southern Medical Journal*, 103(1), 31-36.
- Fogel, J., & Shlivko, S. (2010b). Consumers with sexual performance problems and spam e-mail for pornography. *Journal of Internet Banking and Commerce*, 15(1). Retrieved May 4, 2012 from <http://www.arraydev.com/commerce/jibc/2010-04/Fogel%20pornography%20sexual%20health.pdf> .
- Fogel, J., & Shlivko, S. (2010c). Singles seeking a relationship and pornography spam e-mail: An understanding of consumer purchasing behavior and behaviors antecedent to purchasing. *Cyberpsychology: Journal of Psychosocial Research*. 4(2), article 3. Retrieved May 4, 2012 from <http://cyberpsychology.eu/view.php?cisloclanku=2010120301&article=3> .
- Fogel, J., & Shlivko, S. (2010d). Singles seeking a relationship and spam e-mail for romantic relationships or matchmaking. *Journal of Internet Business*, (8), 41-60. Retrieved May 4, 2012 from [http://jib.debi.curtin.edu.au/iss08\\_fogel.pdf](http://jib.debi.curtin.edu.au/iss08_fogel.pdf) .
- Ganguly, B., Dash, S. B., & Cyr, D. (2009). Website characteristics, trust and purchase intention in online stores: An empirical study in the Indian context. *Journal of Information Science and Technology*, 6(2), 22-44.
- Girard, T., Korgaonkar P., & Silverblatt, R. (2003). Relationship of type of product, shopping orientations, and demographics with preference for shopping on the

- Internet. *Journal of Business and Psychology*, 18(1), 101-120.
- Hannah, B., & Lybecker, K. M. (2010). Determinants of recent online purchasing and the percentage of income spent online. *International Business Research*, 3(4), 60-71.
- IBM. IBM SPSS Statistics, Version 19. Armonk, NY: IBM.
- Kim, S., & Eastin, M. S. (2011). Hedonic tendencies and the online consumer: An investigation of the online shopping process. *Journal of Internet Commerce*, 10(1), 68-90.
- Kwak, H., Fox, R. J., & Zinkhan, G. M. (2002). What products can be successfully promoted and sold via the Internet? *Journal of Advertising Research*, 42(1), 23-38.
- Lassar, W., Manolis, C. & Nicholls, J. A. F. (2005). Antecedents to online purchasing—An exploratory comparison of Anglo versus Hispanic consumers in the United States. *Journal of Internet Commerce*, 4(1), 27-61.
- Lin, L., Hu, P. J.-H., Sheng, O. R. L., & Lee, J. (2010). Is stickiness profitable for electronic retailers? *Communications of the ACM*, 53(3), 132-136.
- Ling, K. C., Chai, L. T., & Piew, T. H. (2010). The effects of shopping orientations, online trust and prior online purchase experience toward customers' online purchase intention. *International Business Research*, 3(3), 63-76.
- Messaging Anti-Abuse Working Group (2011). Report #15 – First, second and third quarter 2011. Email metrics program: The network operators' perspective. Retrieved from [http://www.maawg.org/sites/maawg/files/news/MAAWG\\_2011\\_Q1Q2Q3\\_Metrics\\_Report\\_15.pdf](http://www.maawg.org/sites/maawg/files/news/MAAWG_2011_Q1Q2Q3_Metrics_Report_15.pdf) Accessed June 5, 2012.
- Morton, S. F., Zettelmeyer, F. & Silva-Risso, J. (2003). Consumer information and discrimination: Does the Internet affect the pricing of new cars to women and minorities? *Quantitative Marketing and Economics*, 1, 65–92.
- Naseri, M. B., & Elliot, G. (2011). Role of demographics, social connectedness and prior Internet experience in adoption of online shopping: Applications for direct marketing. *Journal of Targeting, Measurement and Analysis for Marketing*, 19(2), 69-84.
- Ozdemir, E., & Kilic, S. (2011). Young consumers' perspectives of website visualization: A gender perspective. *Business and Economics Research Journal*, 2(2), 41-60.
- Panda Security. (2009). Spam subjects. Retrieved from [http://www.flickr.com/photos/panda\\_security/3234535186/](http://www.flickr.com/photos/panda_security/3234535186/) . Accessed June 5, 2012.
- Passyn, K. A., Diriker, M, & Settle, R. (2011). Images of online versus store shopping: Have the attitudes of men and women, young and old really changed? *Journal of Business & Economics Research*, 9(1), 99-110.
- Punj, G. (2011). Effect of consumer beliefs on online purchase behavior: The influence of demographic characteristics and consumption values. *Journal of Interactive Marketing*, 25, 134-144
- Radicati, S., & Hoang, Q. (2011). Email statistics report, 2011-2015. Retrieved from <http://www.radicati.com/wp/wp-content/uploads/2011/05/Email-Statistics-Report-2011-2015-Executive-Summary.pdf> . Accessed June 5, 2012.
- Rainie, L., & Fallows, D. (2004). The CAN-SPAM Act has not helped most email users so far. Pew Internet & American Life Project: Washington, DC. Retrieved from <http://www.pewinternet.org/Reports/2004/The-CANSPAM-Act-has-not-helped-most-email-users-so-far.aspx?r=1> . Accessed November 26, 2009.

- Sun, T. (2011). The roles of trust and experience in consumer confidence in conducting e-commerce: A cross-cultural comparison between France and Germany. *International Journal of Consumer Studies*, 35, 330-337.
- Symantec (2010). State of spam & phishing: A monthly report. Report #41. May 2010. Retrieved from [http://eval.symantec.com/mktginfo/enterprise/other\\_resources/b-state\\_of\\_spam\\_and\\_phishing\\_report\\_05-2010.en-us.pdf](http://eval.symantec.com/mktginfo/enterprise/other_resources/b-state_of_spam_and_phishing_report_05-2010.en-us.pdf) . Accessed June 5, 2012.