

British and American attitudes toward buying Online

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Abstract

This study compared the attitudes toward online shopping of British and American individuals. Using a sample of 327 British and American university students, the British respondents were found to have less favorable attitudes toward online shopping. There were also differences in actual online shopping behavior, with the American respondents purchasing a wider range of products than did the British respondents. Differences were also identified in attitudes toward money and credit cards. Attitudes toward online shopping were found to be significant predictors of making online purchases - positive attitudes for the British and negative attitudes for the Americans. The implications of these results were discussed and suggestions made for future research.

Introduction

Online retailing is swiftly emerging as an alternative mode of shopping (Mummalaneni, 2005; Rudolph, et al., 2004), and online sales are growing much more rapidly than traditional retail sales in Europe, North America, and Asia, a trend which is predicted to persist through the first decade of the 21st Century (Hammond, 2001). As such, the Internet is expected to become a sales channel that can no longer be ignored (Mennon and Kahn, 2002) and to generate a substantial market share in the retail industry in the future (Mummalaneni, 2005).

However, many Internet companies have not generated enough income to make a profit. Quick (2000) reported that only 36 percent of companies have profitable online businesses as compared to 79 percent of catalogue companies and 50 percent of conventional bricks-and-mortar stores.

The lack of success in online retailing at present is attributed to the low-order conversion ratio of website visitors and the inability of online retailers to attract repeat customers (Mummalaneni, 2005). The conversion ratio, the proportion of website visitors who buy based on the total number who visit a website, is reported to range from 2 percent to 3 percent (Shim et al., 2001). There are other explanations for the fact that many consumers still make purchases the conventional way. These include a lack of technological know-how, access to a computer, or computer anxiety (Amichai-Hamburger, 2002). Access to a computer is an issue because the ease of access to the Internet varies in different countries. The "Digital Access Index" (DAI), compiled by the International Telecommunication Union (www.itu.int) in 2002 for 178 nations, indicated a wide range of the index, with scores ranging from 0.85 for Sweden down to 0.11 for Angola. The present paper compares data from British and American individuals, and the DAIs for the United Kingdom and the United States were 0.77 and 0.78, respectively, almost identical.

In general, people may refuse to use the Internet for shopping because the websites are not user-friendly. Many websites are designed to provide only information, and they often assume that the consumer is a rational agent who attempts to achieve goals with a minimum of hassle (Childers, et al., 2001). (Apparently, these websites are designed to satisfy those consumers who are driven by utilitarian motivations.) Online shopping is hindered by the impersonal nature of the experience, and Holzwarth, Janiszewski and Neumann (2006) have experimented with using avatars (graphic animated figures on the website) to overcome this negative aspect.

Many website designers fail to recognize the importance of personality differences among Internet users (Amichai-Hamburger, 2002) and the impact of these differences on online shopping (e.g., Cho, Kang & Cheon, 2006). For example, Hamburger and Ben-Artzi (2000) found that Internet use was related to measures of extraversion and neuroticism in people, and also that the associations were quite different for men and women. For men, the more extraverted they were (that is, friendly, impulsive, excitement-seeking and risk-taking), the greater their use of leisure services, while the more neurotic they were (that is, anxious, emotional and over-reacting) the less they used information services. For women, on the other hand, those who were less extraverted and more neurotic used social websites more often.

While gender differences exist in choosing to visit different types of website, probably based on the different personality traits of men and women, these differences also exist in online shopping experiences. For example, in Switzerland more men are shopping online than women (72.4% of online buyers are men and only 27.6% are women), whereas non-buyers are more evenly distributed by gender (50.5% men and 49.5% women) (Rudolph, et al., 2004).

The role of trust is also important in persuading customers to shop online. There are individual differences in the willingness to trust, but it has been found that the design of the website can increase the trust of customers in the website. For example, Qiu and Benbasat (2005) found that a voice and three-dimension avatars on the website increased the trust of adults shopping online.

Motivated to turn window-shopping on the Net into buying, retailers have focused their attention on the attributes of online shopping. Various studies have found different clusters of relevant attributes that differ by country, including: (i) the opportunity to make better deals, the convenience of the delivery service and the flexible shopping hours for German grocery shoppers (Pechtl, 2003); (ii) the Internet's effectiveness and modern nature, convenient purchases, an abundance of information, the quality of service, the speed of delivery, homepage design, selection freedom, and company-name familiarity for Internet users in Taiwan (Wu, 2003); and (iii) the ability to buy products not available in Singapore, the fun of seeing if it works, getting products faster, saving money, and shopping at any time for responders to an e-mail survey in Singapore (Teo, 2002).

On the other hand, the online shopping barriers include the following clusters.

- (i) Faster in-store shopping, an unwillingness to transfer credit card data, bad experiences with online shopping, and an inability to judge product and service quality for non-buyers among respondents in Switzerland (Rudolph, et al., 2004). According to Rudolph, et al. (2004), marketers have paid substantial attention to online shopping barriers since the introduction of the Internet as an additional channel of distribution, for it represents a shopping innovation (cf, Dholakia and Uusitalo, 2002). In their own study, Rudolph, et al. classified the online shopping barriers into four types, namely, digital, security, online channel, and experience/access. Each type has several items with factor loadings of .50 and above. The items cited in this paragraph are those with the highest loadings on each factor, and the items for each factor are listed in descending order of loading magnitude.
- (ii) Missing the touch-and-feel experience and the fear of losing track of what one has purchased while shopping for German grocery shoppers (Pechtl, 2003).
- (iii) Preferring to examine the product [in the store], not owning a credit card, preferring to visit real shops, distrusting the Internet with credit card information, and not being sure about how to return faulty products for e-mail respondents in Singapore (Teo, 2002).

Based on these studies in four different countries, the major reasons for buying online include convenience, flexibility of opening hours, and saving money. The most common reason for not buying online seems to be a preference for what in-store purchases can offer. The remaining barriers to online shopping seem to differ across nations, and the ranking of the barriers (and benefits) of online buying also differ among the different nationalities. Strong cross-national differences in online shopping preferences were also reported by Hwang, Jung and Salvendy in a study of Korean, Turkish and American consumers.

The present study was designed to compare the attitudes that people in the United Kingdom and the United States have toward online shopping as well as the extent of their online shopping since these attitudes were found to be among those variables predicting online shopping for American students (Yang, et al., 2003). The questionnaire surveyed the respondents' attitudes toward several positive and negative features of Internet shopping. The positive features were designed to capture the favorable characteristics of online shopping such as convenience, accessibility to a variety of product information and few constraints on time and space. The negative features of shopping online include lack of salespeople to advise the shopper and anxieties about giving credit card information online.

In addition, a variety of scales to measure attitudes toward money and credit cards were administered based on the latest findings on the subject. For example, Yang, et al. (2003) found that attitudes toward money predicted shopping behavior online in American respondents. There do appear to be differences in money attitudes between British and American respondents. The British, for example, are much less willing to incur debt by borrowing. Indeed, the practice used to be called "buying on the never-never" - one never finishes paying for the item and never really own it. The differing financial structures in the two countries probably have an impact on money attitudes and borrowing habits. For example, fixed-rate mortgages for housing are less common in Britain (with the result that interest rates on mortgages fluctuate from year to year), whereas buying houses leasehold is rare in America (where almost all housing is sold freehold).

Research has also documented differences in British and American attitudes toward money. For example, Tang, Furnham and Wu (2002) compared employees in Britain and America and found that Americans saw money as a symbol of success and achievement more than did the British, and the Americans were also more careful in their expenditures than the British.

The next section on Methods covers the subjects of the research, the contents of the various questionnaires, and the types of statistical analysis. The descriptive characteristics of the data, the outcome of a factor analysis, and the estimation results are discussed in Section III. The final section contains the Discussion and Conclusion.

Method

Subjects

The subjects were 185 business students from an American university (62% male, mean age 21.8 years, standard deviation = 2.8) and 142 business students from a British university (54% male, mean age 20.2 years, standard deviation = 1.9).

The respondents were given a package of questionnaires and asked to complete anonymously during class periods.

Data Collection

The students were administered a questionnaire anonymously in class containing the following scales:

- (i) Background information
The students were asked their age, sex, whether they owned a PC or Macintosh, whether they subscribed to an Internet provider, whether they used computers at home, at school and at work, and how many hours each week they were logged on to the Internet.
- (ii) Discomfort with computers
The students were administered a 6-item scale to assess their discomfort with computers (PC Anxiety: Yang & Lester, 2002). Questions included items such as "The harder I work at learning computers, the more confused I am" which were answered on a 6-point Likert-scale (ranging from strongly agree to strongly disagree).
- (iii) Attitudes toward online shopping
The respondents were presented with a 21-item scale to assess (on a five-point scale, ranging from "a lot" to "not much at all") their opinions about the importance of the attributes of online shopping (Yang & Lester, 2004). The scale contained eleven positive features of online shopping (such as "it provides easy access to information" - see Table 1) and ten negative features (such as "my credit card number may be stolen" - see Table 1).

(iv) Online purchasing experience

Students were presented with 15 items (books, compact discs, cars, car insurance, computers, stationery, airline tickets, hotel rooms, stocks/shares, groceries, clothes, pornography, shoes, shows/concert seats, and gambling) and asked (i) whether they had used the Internet to find information about them, and (ii) whether they had purchased them over the Internet in the current year. Thus, an "online purchase" means any purchase from these 15 items.

(v) Credit card attitudes

The students were asked how many credit cards they owned. They were also presented with a 12-item credit card attitude survey (Xiao, Noring & Anderson, 1995) as modified by Hayhoe, Leach and Turner (1999) which measures emotions, thoughts and behavioral intentions toward credit cards (that is, affective, cognitive and behavioral components, respectively), with 4 items for each component. Affect refers to questions like "I like using credit cards;" cognition to questions like "Heavy use of credit cards results in heavy debt;" and behavior to items like "I would like to apply for more credit cards." The items were answered on a 6-point Likert-scale (ranging from strongly agree to strongly disagree).

(vi) Money attitudes

The students were given a 47-item scale to measure attitudes toward money (Furnham, 1984) which measures six attitudes toward money: obsession with all aspects of money; money as a tactic for gaining power; retention or being careful with money; conservative or having an old-fashioned approach to money; inadequate or a feeling that one does not have enough money; and effort or how one gets money.

Typical questions for obsession were "I worry about my finances much of the time;" power, "I sometimes 'buy' friendship by being very generous with those I want to like me;" retention, "I often say 'I can't afford it' whether I can or not;" conservative, "I am proud of my ability to save money;" inadequate, "Most of my friends have more money than I do;" and effort, "I believe that my present income is about what I deserve, given the job I do." The items were answered on a 6-point Likert-scale (ranging from strongly agree to strongly disagree).

(vii) Belief in an external locus of control

The students were administered a 23-item forced-choice scale to measure belief in an external (versus an internal) locus of control (Rotter, 1966), that is whether you believe that what happens to you is a result of the actions of powerful others or luck/fate (belief in an external locus of control) or as a result of your own actions (belief in an internal locus of control). A typical item is a choice between (a) In the long run, the bad things that happen to us are balanced by the good ones, and (b) Most misfortunes are the result of ability, ignorance, laziness or all three.

Data Analysis

Three types of data analysis were utilized in this paper:

- (i) A factor analysis was applied to the combined data of American and British subjects on attitudes toward online shopping in order to identify clusters of factors which describe the underlying attitudes toward online shopping,
- (ii) American and British online shoppers were compared on their list of purchases and on their differences in attitudes and personality, and
- (iii) The linear probability model (LPM) (Woodbridge, 2003) was applied to predict making any purchase online and to buying each of 15 specific products by the American and British subjects.

The specification of the LPM included 17 independent variables include sex, age, PC anxiety, external locus control, three credit card attitude measures, six money attitudes, positive and negative online shopping attitudes (the sum of scores for those corresponding individual items), the number of credit cards, and the number of hours spent on line. In addition, backward regressions were applied to choose the most significant independent variables for individual estimations.

Results

The responses to the 21-item on attitudes toward online shopping identified five orthogonal factors with eigenvalues greater than one (see table 1). The first two factors had high loadings (> 0.50) from the positive items, and the last three had high loadings from the negative items.

Subjects were presented with 11 items to assess positive attitudes toward online shopping but only 10 items to assess negative attitudes. Interestingly, the factor analysis identified three factors for the negative items versus only two factors for the positive items. This implies that negative attitudes are more complex and might have a more formidable influence on the decision to shop.

Regarding the positive items, the first factor tapped access to a wide variety of products and free of time and space constraints, while the second factor tapped the ability to make effective transactions. For the negative items, the third factor tapped the lack of security and privacy and the effort involved in searching, the fourth factor tapped the lack of personal assistance and brand-name recognition, while the fifth and final factor tapped the inability to feel and touch the product and the lack of access to after-sales services.

Since marketers have paid substantial attention to barriers to online shopping, note should be taken of the link between the present study and marketing studies.

- (i) The third factor identified here is similar to the risk and usage barriers identified by Ram and Sheth (1981) and the security/online channel barrier described by Rudolf, et al. (2004).
- (ii) The fourth factor is similar to the value and usage barriers identified by Ram and Sheth and the digital barrier described by Rudolf, et al.

(iii) The fifth factor is similar to the value barrier identified by Ram and Sheth and the digital barrier described by Rudolf, et al.

Ram and Sheth's study provides a pioneering theoretical framework for examining consumers' resistance to adopting innovations. They classified the barriers into two categories: functional (usage, value and risk barriers) and psychological.

The comparisons of the American and British respondents are shown in Table 2. Looking at the differences in the factor scores, it can be seen that the American respondents had significantly higher scores on the positive Factor 1 (access to a wide variety of products and free of time and space constraints) while the British respondents had higher scores on the negative Factors 3 and 4 (lack of security and privacy and the effort involved in searching; lack of personal assistance and brand-name recognition).

Comparing how often the American and British respondents purchased particular products online revealed significant differences (see Table 3). The American respondents were more likely to have purchased books, computers, clothes and tickets for shows and concerts online while the British respondents were more likely to have purchased compact discs and car insurance.

For the attitude and personality variables, the British respondents had higher scores for the obsessive attitude toward money, for computer anxiety, and for an external locus of control, but lower scores for the affective (emotional) attitude toward credit cards (see Table 4). The American respondents possessed more than double the number of credit cards and spent more than twice the number of hours online than did the British respondents.

In predicting whether respondents made any purchase online, the predictors as a whole were more successful in explaining the variance for the British respondents than for the American respondents as indicated by a higher R^2 for them as compared to the American respondents ($R^2 = 28\%$ versus 16%). For the Americans, making purchases online was predicted by the cognitive attitude toward credit cards, feeling that they did not have enough money, and having a negative attitude toward online shopping, while for the British making purchases online was predicted by age, having a less conservative attitude toward money, and having a positive attitude toward online shopping (see Table 5), with having a positive attitude toward online shopping being the most influential predictor.

The predictors of online shopping differed greatly by the specific product purchased, as well as by country (see Table 6). For example, computer-anxiety was significant for many of the products purchased by Americans (books, computers and stationery), but not for the British respondents. On the other hand, the number of credit card possessed was a significant predictor for seven products for the British respondents (books, computers, airline tickets, stocks/shares, clothes, shoes and shows/concert seats) but only for one (books) for the Americans.

There was another noteworthy feature of the results concerning purchasing individual items online. For the Americans, positive attitudes were significant predictors for three products (books, airline tickets and hotel rooms) while negative attitudes were significant predictors for six products (compact discs, car insurance, computers, hotel rooms, clothes, and gambling). Thus, for purchasing individual products online, there seems to be no simple rule for whether positive or negative attitudes toward online shopping are relevant, and this was true for the American and for the British respondents. However, on the whole, Americans were more affected by negative attitudes (significant for six products) while the British were more affected by positive attitudes (significant for five products).

Overall, for individual product online purchases, the predictors accounted for more of the variance in the full multiple regressions for the British respondents than for the Americans (for 13 of the 15 products with one tie and one product with no data available for the British respondents because too few purchased it).

Discussion and Conclusion

Considering the similarity in heritage shared by Americans and the British, it is interesting to find that differences between both nationalities exist in every aspect of the current study.

- (i) With regard to attitudes toward online shopping, the Americans scored higher on one positive factor, while the British scored higher on two of the negative factors, which may reflect the greater optimism of Americans.
- (ii) In terms of their online shopping experience, Americans seemed to buy a wider range of products than the British.
- (iii) With regard to attitude and personality traits, the British seemed more inclined to worry about their finances and to believe that what happens to them is a result of the actions of powerful others or luck/fate. They also reported greater computer anxiety and disliked using credit cards more than did their American counterparts. On the other hand, the Americans possessed many more credit cards and spent much more time online than did their British counterparts.
- (iv) As for the significant predictors of making any purchase online, there were great differences between the two nationalities, and there were no common predictors at all. One interesting contrast is that negative attitudes toward online shopping was one of the significant predictors for Americans, while positive attitudes emerged as one of the significant predictor for the British.
- (v) The predictors of online shopping for individual products varied greatly by product as well as by country. An interesting result was that, even though the Americans had relatively lower overall computer anxiety, that variable was significant in predicting their online purchase of books, computers and stationery, but not for the British. The British possessed a smaller number of credit cards, yet the number of credit cards was significant in predicting their online purchases of seven products, but only one product for the Americans.

As indicated in (v), the differences between shopping online varies substantially not only by product but also by country. This implies there is a great need for studies to be carried out focusing on individual products so that common facilitators and barriers could be identified which would improve the design of effective business strategies for the online retailing industry.

The major conclusion from the current study is that, in general, the Americans responded more strongly to the negative attributes of online shopping, while the British responded more strongly to the positive attributes. This implies that, in order to attract more Americans to shop online, e-tailers should strive to reduce or remove those negative factors. For the British, e-tailers should focus on the positive features of online shopping. For instance, hedonic motivations to engage in retail shopping have been found to be as important as utilitarian motivations

(Childers, et al., 2001). (According to Childers, et al., utilitarian motivation refers to the phenomenon that consumers are basically motivated to purchase products in an efficient and timely manner so as to achieve their goals “with a minimum of irritation.”) Thus the creation of an online shopping “webmosphere” through more effective design of interactive retail shopping environment was recommended by Childers, et al. (2001). It has also been documented that the quality of the website is critical in predicting online shopping (Lynch, et al., 2001).

The difference in the attitudes of the British and American respondents suggests that e-tailers should consider customizing their websites for each nation. To offer one single website for consumers around the world may not attract as much business as tailoring the website for each nation. A few websites do ask the visitors to indicate on the first screen the nation in which they live, but often this is merely to choose the language used on the website. The shopping experience remains the same. It may be necessary to tailor the shopping experience to the attitudes generally held by the residents in each nation.

The differing attitude toward the use of credit cards between the British and American respondents in the present study indicates that alternative methods of payment may be necessary in different countries. Systems such as Paypal may attract consumers in some countries, and even COD (payment in cash on delivery) may be appropriate in other countries.

With regard to future research, since both the sum of the positive and the negative attitudes proved to be significant predictors of online shopping for the Americans and the British, the individual item scores for each positive and negative attribute could be explored as independent variables to predict online shopping. In order to mitigate the problem that would result from the decrease in the degrees of freedom, the sample size should be increased. Another line of research would be to expand the exploration of cross-cultural differences to other nations.

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Table 1: Factor Analysis Of Attitudes Toward Online Shopping
(decimal points omitted)
n=327

	Factor 1	2	3	4	5
it provides easy access to information	76#	-02	-12	-24	15
it provides comprehensive information	75#	-05	-17	-16	17
I can purchase goods and services faster	47	52#	-17	-02	-07
I can stay home and shop	24	82#	-15	-06	-05
it saves driving from store to store	17	84#	-15	-10	02
it requires less effort on my part	23	80#	-06	-19	08
I can get better prices	61#	23	-02	-11	-01
I can order things from distant places	64#	38	11	20	-13
I can purchase goods at any time of the day	61#	49	-01	05	-03
I can choose from a greater variety of models of the product	63#	34	-12	02	-19
I can gain access to after-sales services online	55#	33	08	13	-09
it takes time to find and get to each store's website	-15	-05	62#	40	01
my credit card number may be stolen	06	-20	77#	04	19
I can't try out the object I'm buying	04	-05	33	13	67#
I have to wait for the delivery	-08	05	11	07	79#
websites require too much person information when you log on	-05	-11	70#	04	35
surfing the web is too time consuming	-21	-04	61#	40	08
it is more difficult to return a defective product	07	-01	09	36	63#
it is boring to stay home and shop	-06	-38	24	49	35
the websites I have to use are not well-established "brands" or "stores"	-02	-10	19	78#	20
there is no sales assistant to advise me	-05	-05	12	77#	14
% of variance	28.2	15.8	7.1	5.8	4.9
# loading > 0.50					

Table 2: Attitudes Toward Online Shopping

	Americans (n=185)		British (n=142)		t-test
	mean	SD	mean	SD	
it provides easy access to information	4.46 (0.90)		4.17 (0.96)		2.82**
it provides comprehensive information	3.98 (0.96)		3.56 (0.97)		3.96***
I can purchase goods and services faster	3.68 (1.22)		3.45 (1.11)		1.72
I can stay home and shop	3.65 (1.42)		3.63 (1.27)		0.10
it saves driving from store to store	3.52 (1.46)		3.29 (1.25)		1.54
it requires less effort on my part	3.46 (1.33)		3.46 (1.16)		0.01
I can get better prices	3.91 (1.13)		3.77 (1.12)		1.06
I can order things from distant places	3.98 (1.23)		4.01 (1.14)		0.27
I can purchase goods at any time of the day	4.40 (1.21)		3.74 (1.35)		2.18*
I can choose from a greater variety of models of the product	3.84 (1.23)		3.32 (1.16)		3.82***
I can gain access to after-sales services online	3.21 (1.30)		2.68 (1.19)		3.79***
TOTAL POSITIVE ATTITUDES	41.7 (9.1)		39.1 (8.6)		2.60**
it takes time to find and get to each store's website	2.28 (1.10)		2.99 (1.16)		5.70***
my credit card number may be stolen	3.23 (1.42)		3.63 (1.32)		2.61**
I can't try out the object I'm buying	3.92 (1.14)		4.20 (0.99)		2.32*
I have to wait for the delivery	3.56 (1.13)		3.39 (1.18)		1.31
websites require too much person information when you log on	3.41 (1.31)		3.63 (1.11)		1.66
surfing the web is too time consuming	2.38 (1.29)		2.98 (1.13)		4.35***
it is more difficult to return a defective product	3.50 (1.27)		3.78 (1.02)		2.18*
it is boring to stay home and shop	2.47 (1.35)		2.88 (1.30)		2.75**
the websites are not well-established "brands" or "stores"	2.22 (1.14)		2.58 (1.09)		2.85**
there is no sales assistant to advise me	2.21 (1.24)		2.82 (1.21)		4.51***
TOTAL NEGATIVE ATTITUDE	29.1 (7.8)		32.8 (7.1)		4.42***
Factor 1	0.16 (0.96)		-0.21 (1.02)		3.38***
Factor 2	-0.03 (1.05)		0.04 (0.93)		0.61
Factor 3	-0.17 (1.02)		0.22 (0.94)		3.50***
Factor 4	-0.19 (1.00)		0.25 (0.95)		3.98***
Factor 5	0.02 (1.08)		-0.02 (0.89)		0.34

* two-tailed $p < .05$ ** two-tailed $p < .01$ *** two-tailed $p < .001$ **Table 3: Purchasing Products Online**

	American n=185)	British (n=142)	X ² (df=1)
1 books	49%	30%	12.29***
2 compact discs	23%	36%	5.94*
3 cars	4%	1%	3.01
4 car insurance	2%	10%	8.54**
5 computers	36%	10%	29.39***
6 stationery	35	1%	1.04
7 airline tickets	40%	47%	1.68
8 hotel rooms	25%	24%	0.10
9 stocks/shares	10%	10%	0.06
10 groceries	5%	8%	0.88
11 clothes	31%	20%	4.65*
12 pornography	3%	1%	1.68
13 shoes	13%	7%	3.59
14 shows/concert seats	47%	23%	18.83***
15 gambling	6%	11%	2.64
any purchase	88%	79%	3.74 (p = .053)

* two-tailed $p < .05$ ** two-tailed $p < .01$ *** two-tailed $p < .001$

Table 4: Differences In Attitudes And Personality

	American (n=185) mean SD	British (n=142) mean SD	t-test (df=325)
<u>Money Attitudes:</u>			
obsession	48.9 (9.2)	51.3 (10.3)	2.16*
power	22.0 (4.3)	22.5 (4.5)	0.98
retentiveness	20.7 (4.9)	21.0 (4.9)	0.67
conservative	32.1 (4.8)	31.3 (5.2)	1.38
inadequacy	23.5 (4.1)	22.6 (3.9)	1.78
effort	14.5 (3.4)	15.0 (3.3)	1.29
<u>Credit Card Attitudes</u>			
affective	15.2 (4.8)	14.0 (4.6)	2.18*
cognitive	13.7 (4.9)	14.5 (4.0)	1.60
behavioral	7.7 (4.1)	7.8 (4.4)	0.24
PC anxiety	11.9 (4.6)	14.2 (4.5)	4.44***
External locus of control	11.3 (3.9)	12.4 (4.1)	2.54*
Number of credit cards	2.3 (2.2)	1.0 (1.0)	6.77***
Hours online	28.8 (41.9)	10.0 (11.9)	5.03***

* two-tailed $p < .05$ ** two-tailed $p < .01$ *** two-tailed $p < .001$ **Table 5: Predicting making any purchase online**
(beta coefficients shown)

	America (n=185)	Britain (n=142)
sex	-0.01	0.09
age	-0.04	-0.20#
PC anxiety	-0.04	0.06
external locus	0.07	0.03
credit card attitudes:		
affective	-0.12	-0.09
cognitive	-0.34*#	-0.08
behavioral	-0.05	0.10
money attitudes:		
obsessive	-0.08	-0.01
power	0.07	0.08
retentive	0.08	0.09
conservative	0.05	-0.18#
inadequate	0.17#	0.03
effort	0.09	-0.08
shopping online attitudes:		
positive	0.03	0.30*#
negative	-0.10#	-0.14
number of credit cards	-0.02	0.04
hours online	0.08	0.11
R ²	0.16	0.28

* $p < .05$ or better in the full multiple regression

significant in the backward multiple regression

Table 6: Predicting on buying individual items online
(decimals points omitted)

Americans (n=185)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
sex	-15	-06	13	-04	15	-08	-04	01	-09	-07	-11#	05	01	06	-07
age	10	05	-07	13#	08	-01	11	17*#	09	-05	-12	02	-13	-15	07
PC anxiety	-17#	05	-03	14	-30*#	-11#	-06	-05	-01	-03	01	-15	07	11	-02
external locus	08	-02	04	-14	13	-05	-01	-07	19*#	-11	-09	04	-01	13	-07
credit card attitudes:															
affective	-08	10	11	-01	-02	-06#	03	-07	-20	-02	03	06	08	-02	-10
cognitive	-20*#	12	15	-05	-19*#	-05	-01	-13	-35*#	10	-05	01	16	-21#	-12
behavioral	-06	-02	01	01	-08	02	13	04	09	-07	04	-14	-06	-09	-01
money attitudes:															
obsessive	17	-01	07	04	-19*	02	-07	05	15#	02	07	25*#	13#	01	12
power	-13	-18#	-06	-01	12	-01	-01	-04	-23*#	-11	-06	-17#	-03	-13	03
retentive	01	-01	05	02	03	09	-01	19#	10	01	23*#	12	07	02	-07
conservative	-05	-03	01	-05	09	-03	-02	04	02	05	03	-33*#	-02	-03	14
inadequate	07	04	-01	04	14#	-02	02	-01	02	-15#	-13#	03	-20*#	07	-03
effort	-07	02	09	-03	09	-03	-05	-13	-04	-19*	-08	-01	-05	17	-06
shop online attitudes:															
positive	19*#	03	07	06	09	10	15#	17#	13	05	08	-05	11	02	-03
negative	-16	-23*#	-01	-16#	-13#	-04	04	-17#	-08	-08	-37*#	10	-09	-01	-25*#
number of credit cards	-12#	-13	-07	-11	10	02	06	12	09	01	08	03	08	-01	-03
hours online	-09#	09	14#	-02	16*#	09	-13	-09	-10	05	-15	09	01	-09	-08
R ²	25	11	10	10	37	09	08	19	24	10	29	15	12	13	11
1 books	6 stationery	11 clothes													
2 compact discs	7 airline tickets	12 pornography													
3 cars	8 hotel rooms	13 shoes													
4 car insurance	9 stocks/shares	14 shows/concert seats													
5 computers	10 groceries	15 gambling													

British (n=142)	1	2	3	4	5	6	7	8	9	10	11	12 ¹	13	14	15
sex	-08	30*#	14	11#	30*#	-13	06	-20#	33#	01	-07		01	01	24*#
age	-03	-07	03	-01	01	02	01	-02	11	-05	-17		-13	-03	07
PC anxiety	-06	18	-04	01	14	10	21	07	01	19	-13		-03	-03	-05
external locus	-17	-26*#	10	-18	-12	-21	-16	-25*#	12	-14	-13		-02	-01	08
credit card attitudes:															
affective	-05	-18	-22	-11	-06	-25#	-08	16	-13	-01	24		16	04	41*#
cognitive	-24*#	-27*#	03	-32*#	-28*#	-07	-08	14	-18#	-17	13		14	-01	-08
behavioral	03	11	08	25#	11	39*#	-01	-05	13	-18	-13		06	-08	-26#
money attitudes:															
obsessive	01	-10	22#	16	16#	02	16	02	23*#	-16	17#		-22	01	-04
power	-04	20	-02	-04	18#	19#	11	-09	08	06	09		-09	-09	-02
retentive	14	25#	10	-03	14	-03	-04	08	06	24	14		27	-08	13
conservative	-37*#	12	-10	-03	23#	-02	06	01	-04	10	-22#		-07	16	-21
inadequate	-23#	24#	-10	-06	01	04	04	-18	-17#	17	-09		18#	07	-10
effort	-20#	-07	25#	-12	27*#	-03	03	-18	09	18#	08#		08	-08	-24#
shop online attitudes:															
positive	32*#	27*#	-09	20	-16	01	04	18	-02	20#	05		05	22#	38*#
negative	-10	-07	05	-11	-02	-04	02	05	01	-27*#	-19#		-12	-03	03
number of credit cards	-24*#	03	03	-05	15#	-20	17#	11	35*#	04	17#		22#	20#	-16
hours online	21#	11	01	-08	19	08	25	33*#	26*#	23	01		-23#	07	07
R ²	39	36	15	26	37	19	16	30	49	33	31		22	15	42

* p < .05 or better in the full multiple regression
significant in the backward multiple regression

1 books 6 stationery 11 clothes
2 compact discs 7 airline tickets 12 pornography
3 cars 8 hotel rooms 13 shoes
4 car insurance 9 stocks/shares 14 shows/concert seats
5 computers 10 groceries 15 gambling

¹ Not enough British respondents had purchased pornography online for a multiple regression to be possible.