Journal of Consumer Marketing

Article information:

Users who downloaded this article also downloaded:

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

An executive summary for managers and executive readers can be found at the end of this article
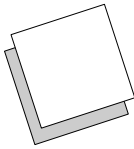
Collecting and using personal data: consumers' awareness and concerns

Timothy R. Graeff
Associate Professor of Marketing and Director, Office of Consumer Research, Middle Tennessee State University, Murfreesboro, Tennessee, USA

Susan Harmon
Assistant Professor of Marketing, Middle Tennessee State University, Murfreesboro, Tennessee, USA

Abstract *Consumers are becoming increasingly concerned about the privacy of their personal information and information about their purchase behaviors. The current study examines the extent to which consumers are concerned with how their personal information is collected and used, their awareness and knowledge of data collection practices using discount (loyalty) cards, the relationship between demographics and privacy concerns, and the relationship between privacy concerns and purchase behaviors. Results from a telephone survey of 480 consumers suggest that even though consumers are concerned about how personal information is collected and used, very few consumers are aware of how discount (loyalty) cards are used to collect personal level purchase data. Results also suggest that concerns about the use of personal information vary by demographic market segments, and that privacy concerns are significantly related to consumers' purchasing behaviors on the Internet.*

Introduction

Every movement monitored

Imagine that while on your way to work today, you use a loyalty card to receive a 10 percent discount on your purchases of a cup of coffee and a newspaper. At work, you might also field phone calls (which are monitored), send e-mails (which are read by your superiors) and work in an office that is being videotaped. As you leave work, your movements in the parking lot are videotaped. Arriving at a grocery store, you are again videotaped as you move about the parking lot and the grocery store aisles. Checking out, you use a grocery store discount card (loyalty card) that provides special prices on certain items. Using the card also allows the grocery store (and food manufacturers) to record the specific items that you purchase and the time of day you purchase them. Depending on where you live, imagine that you accidentally drive through a red traffic light, which automatically triggers a camera to photograph your car tags. After dinner, you relax by surfing the Internet where your every click is tracked and your computer's hard drive is scanned. With seemingly every move of your life being monitored, should you be concerned about your privacy? Many people are. Such invasions of privacy as described above are happening every day to people just like you!

Increasing concern

Consumers are becoming increasingly concerned about the degree to which retailers, manufacturers, marketers and Web sites are monitoring their every action. Studies have found that as many as eight in ten US citizens are very or somewhat concerned about threats to their personal privacy (Cranor *et al.* 1999). Concern for privacy also extends to government use of personal

The research register for this journal is available at
http://www.emeraldinsight.com/researchregisters
The current issue and full text archive of this journal is available at
http://www.emeraldinsight.com/0736-3761.htm

information. A Gallup Poll found that half of US citizens did not believe that census data would be confidential and not shared with other government agencies (Newport, 2000).

Legal right to privacy

Concern for privacy is not new. The initial legal opinion on the right to privacy dates back to the late nineteenth century. The advent of a new technology that could permanently *capture* a person's behaviors and actions was the impetus for this opinion since:

> Instantaneous photographs and newspaper enterprise have invaded the sacred precincts of private and domestic life; and numerous mechanical devices threaten to make good the prediction that "what is whispered in the closet shall be proclaimed from the house-tops" (Warren and Brandeis, 1890).

Warren and Brandeis asserted that regardless of the extrinsic value of one's ideas, thoughts or creations, "the individual is entitled to decide whether that which is his shall be given to the public" (Warren and Brandeis, 1890).

Today's technology allows for even more extensive data gathering and invasions of privacy. Basic database programs can be merged to provide an in-depth portrait of an individual's purchase behaviors. Marketers can now record exactly what an individual consumer purchases, when he/she buys it, where he/she buys it, how much of it he/she buys, and how often he/she buys it. The use of scanner data coupled with retailer sponsored loyalty programs (e.g. grocery store discount cards) and store credit cards (e.g. a Sears credit card) allow marketers to record, use, and even sell information about individual consumers' purchasing patterns.

Competitive forces

The increased use of such data gathering techniques has been driven in large part by the competitive forces facing marketers today. As opposed to consumer surveys (telephone, mall-intercept, mail) that can measure only consumers' stated purchase intentions and attitudes, database marketing and automatic data capture systems allow marketers to record actual purchase behavior.

The increased need to gather consumer data is also due in part to consumers' desire for individualized attention and personalized communications. To provide promotions that are tailored to consumers' particular interests, marketers must obtain individual level purchase data. Accordingly, consumers can reasonably expect to provide retailers with a certain modicum of personal purchase information in order to facilitate transactions. However, consumers are also likely to believe that retailers have profited at their expense if information about personal purchase patterns is sold to other marketers. Sheehan and Hoy (2000) suggest that compensating consumers for individual purchase information will ameliorate privacy concerns. In fact, they recommend that the notion of exchange be added to the FTC's core principles in guiding Internet sites' privacy policies.

Important questions

Unfortunately, we know relatively little about consumers' concerns for how information is collected and used and the influence of these concerns on consumers' purchase decisions. Consumer researchers are beginning to answer important questions such as: are consumers aware of the means by which retailers and marketers collect information about individual purchase behaviors? Are all consumers equally concerned about how their personal information is collected and used? How do consumers' privacy concerns influence their purchase behaviors? The purpose of this research is to begin a systematic research effort to provide answers to such questions.

Positive view of targeting

Awareness and concern for privacy
Consumers generally do not believe that marketers are concerned with consumer privacy issues, and have negative perceptions of marketers who attempt to record too much personal information. Yet, even though consumers feel that some marketers already know too much about them, consumers agree that the more marketers know about them, the more useful their catalogs and promotional messages become (Phelps *et al.*, 2000). In fact, many consumers find it at least somewhat acceptable for companies to use consumer purchase patterns to target them for mail offers (Equifax, 1996). In studies of Internet users, younger respondents (13-25 years) have even indicated a positive view toward the collection of information for marketing purposes if given a choice and compensated for their loss of privacy (Gervey and Lin, 2000). Children between the ages of 10-17 are quite willing to provide information to Web sites (even though 46 percent of the parents surveyed were unaware that their children were giving out information online) (Deibel, 2000).

Nowak and Phelps (1995) suggest consumers' knowledge of data collection can be identified as either full knowledge of collection and use, knowledge of collection but not of use, or ignorance of both collection and use. The threat to consumer privacy is minimal under the first condition (full knowledge) and greatest under the last condition – where consumers do not know of the collection or the use.

Scanner data

The increased use of scanner data has allowed for more and more marketing and promotional efforts based on databases of consumer purchase information. When coupled with consumers' increased acceptance and use of loyalty programs such as grocery store discount cards and retailer credit cards, marketers are now able to collect massive amounts of data regarding individual level consumer purchase patterns. When consumers use their grocery store discount card (e.g. Kroger Plus card), data regarding what they are purchasing, when they are purchasing it, where they are purchasing it, how much of it they are purchasing, and even how often they are purchasing it is added to the customer database. This individual level purchase information can then be used for personalized promotions such as coupons or special deals (consumers must provide personal information when they sign up for the card). Such information can even be sold to other marketers (manufacturers) for related direct marketing promotions. But, are consumers aware of how marketers can use the information gathered from such loyalty programs and discount cards? Even though they are commonly used, very little research has examined consumers' awareness of such cards for information gathering and subsequent database marketing programs.

Limited understanding

Privacy concerns and consumer demographics
Unfortunately, our understanding of the demographics of consumer privacy concerns is also limited. Very few academic studies have examined the relationship between demographics and consumer privacy concerns. The results of these studies are equivocal at best. For example, Wang and Petrison (1993) found that inner city residents, people of color and those with lower than average incomes were less concerned about consumer privacy issues. Older consumers were more likely to be concerned about financial privacy than were younger consumers. A 1996 study conducted by Opinion Research Corporation found that compared to men, women exhibited greater concern about consumer privacy issues. A related study by Louis Harris & Associates found that women saw greater importance in being able to communicate anonymously online (Kate, 1998). However, Sheehan and Hoy

(2000) report finding few significant differences in privacy concerns and computer usage based on demographics.

Variance by type of data

Privacy concerns and purchase situations
Concern over how personal information is collected and used often depends on the nature of the particular purchase situation, the type of data being recorded, how the information will be used and the benefits for providing the information (Cranor *et al.*, 1999; Wang and Petrison, 1993). For example, consumers are generally opposed to the practice of providing pharmaceutical data or medical records for screening job applicants (Equifax, 1996). Even though consumers are reluctant to provide demographic data about personal income and social security numbers (Phelps *et al.*, 2000; Cranor *et al.*, 1999), many consumers willingly provide demographic information such as marital status, education, occupation and age (Phelps *et al.*, 2000).

Privacy concerns also vary by the type of retailer to whom consumers are providing personal purchase information (by making a purchase). Consumers' privacy concerns can significantly impact online retailers. Internet users and non-users see going on-line as a threat to their privacy (*DM News*, 2000; Miyazaki and Fernandez, 2000; Electronic Advertising & Marketplace Report, 2000). A recent Gallup poll showed that less than one-fourth of Internet users "feel completely or very confident" that their credit card information will be secure if used to buy something on the Internet (Moore, 2000). Cranor *et al.* (1999) found that 53 percent of consumers never feel comfortable providing credit card numbers to Web sites that collect information. A similar study of Internet users found that 58 percent do not think buying and selling products over the Internet can be made secure and only 34 percent are as comfortable giving credit card information online as they are giving it to a store clerk or via the phone (Gervey and Lin, 2000). This might explain why respondents (including younger consumers) often research their purchases online and then make their purchase at a traditional bricks and mortar store (Gervey and Lin, 2000). Clearly, privacy concerns can vary based on the type of retailer from whom consumers purchase products.

Specific issues examined

As the preceding discussion illustrates, there are a number of important consumer privacy issues that marketers must consider. The specific purpose of the current research is to examine the following issues: How familiar are consumers with grocery store discount cards and what is the level of consumers' knowledge about how these cards are used for collecting individual consumer purchase data? How concerned are consumers about the collection and use of their personal information? What is the relationship between demographic variables and consumers' privacy concerns? How do consumers' concerns about how personal information is collected and used influence their purchase behaviors?

Methodology

Telephone survey

To examine these issues, a telephone survey of 480 consumers was conducted in a highly populated three-county area of a large southern state. The phone surveys were conducted using a telephone survey laboratory equipped with computer assisted telephone interviewing (CATI) software. Interviewer error was reduced by having questions appear directly on the interviewer's computer screen and having consumers' responses entered directly into the computer (reducing the chance for data entry error). Surveys were conducted between 4 p.m. and 8 p.m. on November 15 and 17, 2000.

Random selection of numbers

Procedure
Phone numbers for consumers participating in the study were randomly selected. On answering the phone, consumers were greeted with the following introductory statement:

> Hello, my name is _____. I am working with the Office of Consumer Research here at _____ University. We are conducting a public opinion poll to measure consumers' perceptions of a number of consumer-related issues. The interview is very short and will take only a few moments of your time. Also, you and your responses will be completely anonymous. Would you be willing to answer a few short questions?

The survey
The survey consisted of four sections:

Structure of survey

(1) general questions to measure consumers' confidence in the national and local economy (e.g. current business conditions, expectations for future business conditions);

(2) demographic questions measuring age (''In what year were you born?''), race, income, gender, and the county in which they lived;

(3) questions measuring Internet purchase behavior; and

(4) questions measuring consumer privacy concerns.

The consumer confidence questions were asked first to help ease consumers into the survey and make them feel comfortable with the types of questions asked and the procedures for answering them.

Purpose of discount cards

Awareness of data collection practices. To measure familiarity with loyalty programs that can be used for database marketing, consumers were first asked whether or not they use grocery store discount cards. To further measure level of knowledge about how these cards are used (for collecting individual consumer purchase data), consumers were asked: ''In your own words, please tell me what you think is the main reason why grocery stores are offering these discount cards to their customers?''

Interviewers were instructed to listen to what the consumer said, and then choose a response category that best fit with the response. Based on the results from pre-testing, the eight categories listed below were identified as responses most often given by consumers (if a consumer's response did not fit any of the categories, it was coded as ''other''):

(1) So the store can collect information about customer buying habits.

(2) So the store can collect information to report back to manufacturers.

(3) To give me individualized promotions (coupons).

(4) To offer special price discounts to their customers.

(5) To charge higher prices (for people who do not have the card).

(6) To make me more likely to continue shopping there (loyalty).

(7) To attract more customers.

(8) To be more competitive in the market (other stores have them).

Internet purchasing. Three questions were used to measure consumers' Internet purchasing behaviors:

(1) Have you ever purchased anything using the Internet?

(2) In the next six months, do you plan to purchase anything using the Internet?

(3) Do you plan to purchase any Christmas presents this year using the Internet?

Views on use of information

Privacy concerns. Consumers' concerns about how personal information is collected and used were measured with the following Likert scales, where respondents were given the options strongly agree, agree, neither, disagree, and strongly disagree (do not know, and no opinion were also acceptable responses to all questions):

• Companies should be able to sell information about their customers' buying habits to other companies.

• The US Government should regulate how companies use the information they gather about customers' buying habits.

• Customers should be informed of how companies use information about customers' buying habits.

• Customers should have a say in how companies use information about customers' buying habits.

• The Internet has made it much easier for someone to obtain personal information about me.

Comfort using credit cards. The degree to which consumers feel comfortable using credit cards to make purchases from various types of retailers was measured with the following Likert scales:

• I am very comfortable using my credit card in a restaurant.

• I am very comfortable using my credit card when I buy something over the phone.

• I am very comfortable using my credit card when I buy something in a store.

• I am very comfortable using my credit card when I buy something using the Internet.

To measure the degree to which consumers might take steps to protect their privacy, the final question on the survey asked consumers whether or not they owned a paper shredder.

The sample

A total of 480 consumers participated in the survey. The demographic characteristics of the sample are shown in Table I. Based on comparisons with recent US Census data for the area, the sample is representative of the larger population.

Results

Awareness of data collection practices

Familiarity with supermarket cards

The results suggest that consumers are very familiar with supermarket discount cards. Almost all consumers (91.2 percent) reported using a supermarket card. Given that the overwhelming majority of consumers use these cards, there were no statistical differences in use of these cards across the demographic variables measured in this study.

Even though consumers were familiar with such cards, they had varying perceptions as to why supermarkets offer them to their customers. Almost all

	Percentage of sample
Racial background	
White	83.3
Black/African American	10.9
Hispanic	1.5
Asian/Pacific islands	1.0
Other	2.1
Refused	1.2
Annual income, 1999	
Less than $10,000	6.7
Between $10,000 and $30,000	17.6
Between $30,001 and $50,000	19.9
Between $50,001 and $70,000	15.7
More than $70,000	24.7
Refused	15.5
Low (less than $30,000)	24.3
Middle ($30,001-$70,000)	35.6
High (more than $70,000)	24.7
Gender	
Male	43.4
Female	56.6
Age	
Mean age	43.3
Median age	41.5
Younger (18-35)	40.3
Middle aged (36-50)	29.0
Older (51-older)	30.7

Table I. Sample demographics

consumers' (89 percent) responses to the question asking why grocery stores are offering these cards could be coded into one of the eight predetermined categories (6.5 percent of responses had to be coded as ''other'', and 4.8 percent of consumers did not respond or said they did not know). These comments were then further combined into four major categories (see Table II). These include:

	Percentage of respondents
Gathering customer information – database marketing	
So the store can collect information about customer buying habits	14.4
So the store can collect information to report back to manufacturers	2.1
Promotion and discounts	
To give me individual promotions (coupons)	4.6
To offer special price discounts to their customers	10.9
Increase loyalty, remain competitive with other retailers	
To make me more likely to continue shopping there (store loyalty)	14.6
To attract more customers	24.5
To be more competitive in the market (other stores have them)	10.7
Charge higher prices	
To charge higher prices (for people who do not have the card)	6.9
Other	6.5
Do not know/refused	4.8

Table II. Consumers' perceptions of why grocery stores are offering discount cards to their customers

(1) *Database marketing* – "So the store can collect information about customers buying habits", "So the store can collect information to report back to manufacturers".

(2) *Promotions and discounts* – "To give me individual promotions and coupons", "To offer special price discounts for customers who have the card".

(3) *Loyalty and competitiveness* – "To make me more likely to continue shopping there", "To attract more customers", "To be more competitive in the market, because other stores offer the discount cards".

(4) *Higher prices* – "To charge higher prices for people who do not have the card".

Positive perceptions

By far the most common response related to loyalty and competitiveness (49.8 percent of responses). Very few (16.5 percent) gave responses related to database marketing and collecting information about customer buying habits. Slightly fewer (15.5 percent) mentioned reasons related to giving individual promotions and special price discounts. Only 6.9 percent of responses were related to charging higher prices for customers who do not use the card. Thus, there appear to be relatively few privacy concerns related to retailer loyalty cards such as supermarket discount cards to collect personal information. The majority of consumers' perceptions were positive (increasing loyalty and offering discounts). Very few consumers associated such discount cards with collecting and using personal information.

Differences by age and income

Loyalty and competitiveness were consistently mentioned most often, and special price discounts were consistently mentioned least often regardless of age, income, or sex of the consumer. However, there were some interesting differences that emerged in consumers' beliefs about competitiveness and data collection practices across levels of age ($\chi^2_6 = 15.3$; $p = 0.02$) and income ($\chi^2_6 = 12.3$; $p = 0.05$). There were no significant differences by gender ($\chi^2_3 = 5.7$; ns). Younger consumers were less likely to mention loyalty and competitiveness (39 percent younger, 52 percent middle age, 62 percent older) and more likely to mention data collection (24 percent younger, 23 percent middle age, 14 percent older). Interestingly, younger consumers were also more likely to mention promotions that would result from individual consumer purchase data (23 percent younger, 16 percent middle age, 18 percent older). Similarly, lower income consumers were less likely to mention loyalty and competitiveness (44 percent lower, 44 percent middle, 60 percent higher) and more likely to mention promotions that would result from individual consumer purchase data (23 percent lower, 21 percent middle, 14 percent higher).

Privacy concerns
The results from the questions measuring consumers' concerns about how personal information is collected and used (see Table III) suggest that consumers have strong privacy concerns. The majority of consumers felt that:

• stores should not be able to sell information about their customers' buying habits to other companies;

• the government should regulate how companies use the information they gather about customers' buying habits;

	Percentage responding					
	SA	A	N	D	SD	DK
Companies should be able to sell information about their customers' buying habits to other companies	2.7	9.8	2.9	37.7	46.7	0.2
The US Government should regulate how companies use the information they gather about customers' buying habits	23.6	33.7	6.9	24.9	8.6	2.3
Customers should be informed of how companies use information about customers' buying habits	47.9	42.7	3.4	4.4	0.6	1.1
Customers should have a say in how companies use information about customers' buying habits	42.8	42.9	4.6	7.3	1.9	0.4
The Internet has made it much easier for someone to obtain personal information about me	42.1	41.9	3.9	7.5	1.3	3.1
I am very comfortable using my credit card in a restaurant	27.5	48.0	7.3	10.7	3.4	3.1
I am very comfortable using my credit card when I buy something over the phone	7.9	28.5	12.4	36.3	12.2	2.7
I am very comfortable using my credit card when I buy something in a store	29.1	56.4	4.8	4.4	2.5	2.7
I am very comfortable using my credit card when I buy something using the Internet	6.7	18.2	14.3	30.8	22.2	7.8

Notes: SA = strongly agree; A = agree; *n* = neither; D = disagree; SD = strongly disagree; DK = do not know

Table III. Consumers' privacy concerns and level of comfort using credit cards

- consumers should be informed about how companies use the information about their buying habits; and

- consumers should have a say in the matter.

The vast majority of consumers also believed that the Internet has made it easier for someone to obtain personal information about them.

Variations by type of retailer

Privacy concerns also varied by type of retailer. With respect to making purchases using credit cards (see Table III), consumers were most comfortable using their credit cards in a retail store (85.5 percent comfortable), and in a restaurant (75.5 percent comfortable), followed by making purchases over the phone (36.4 percent comfortable). Only 24.9 percent were comfortable using their credit card to make purchases using the Internet. Combined, these results suggest that consumers are concerned about how their personal purchase information is collected and used, and that these concerns vary by the type of retailer (at least with respect to using a credit card to make purchases).

Demographics and consumers' privacy concerns

Fewer concerns for male consumers

Demographic variables moderated consumers' privacy concerns and their level of comfort using credit cards to make purchases (see Table IV). Overall, male consumers exhibited fewer privacy concerns. Male consumers were more willing to agree that companies should be able to sell information about their purchase habits (17.5 percent males, 8.9 percent females), and were slightly less likely to agree that consumers should be informed of how companies use information about their buying habits (88.4 percent males, 94.0 percent females). Males were significantly more comfortable making purchases using the Internet (33.0 percent males, 22.4 percent females). Access to the Internet did not vary significantly by gender.

Of the demographic variables measured in this study, income had the most significant relationship to consumers' concerns about the collection and use

	Gender	Income	Age
Companies should be able to sell information about their customers' buying habits to other companies	8.6[*]	5.9	17.6[**]
The US Government should regulate how companies use the information they gather about customers' buying habits	1.9	4.8	19.9[***]
Customers' should be informed of how companies use information about customers' buying habits	7.9[*]	22.5[***]	10.0
Customers should have a say in how companies use information about customers' buying habits	3.7	13.6[***]	12.2
The Internet has made it much easier for someone to obtain personal information about me	1.8	6.5	4.9
I am very comfortable using my credit card in a restaurant	5.0	35.9[***]	22.1[***]
I am very comfortable using my credit card when I buy something over the phone	7.7	25.9[***]	2.0
I am very comfortable using my credit card when I buy something in a store	6.3	16.7[**]	6.7
I am very comfortable using my credit card when I buy something using the Internet	12.1[**]	17.1[**]	15.1[**]

Notes: Figures are chi-square tests for differences in privacy concerns and comfort using credit cards (SA, A, N, D, SD) across the different levels of sex, income, and age; [*] $p < 0.10$; [**] $p < 0.05$; [***] $p < 0.01$

Table IV. Relationship between consumers' privacy concerns and consumers' gender, income and age

of personal information. Consumers with higher incomes were more likely to feel that they should be informed of how information about them is being used (97.4 percent higher, 85.2 percent lower), more likely to feel that they should have a say in how information is used (89.7 percent higher, 81.9 percent lower), and more likely to feel comfortable using their credit card to make retail purchases – regardless of the type of retailer. Interestingly, even though higher income consumers had more privacy concerns, they were also more comfortable using credit cards to make purchases. Perhaps the greater desire to be informed and have a say in how information is used reflects a greater understanding and awareness of how personal information is collected and used.

Views of older consumers

Older consumers were less likely to feel that companies should be able to sell information about their customers (6.8 percent older, 18.1 percent younger), but were also less likely to feel that government should regulate how companies use such information (50.7 percent older, 64.6 percent younger). Older consumers felt less comfortable using their credit cards when they buy something in a restaurant (69.5 percent older, 82.0 percent younger) and when they buy something using the Internet (18.9 percent older, 31.4 percent younger).

Internet purchasing and demographics

Access to Internet

The vast majority (78.4 percent) of the respondents had access to the Internet. While only 21.3 percent did not have access to the Internet at either their home or work, 30.3 percent had access only at home, 9.0 percent had access only at work, and 39.1 percent had access at both their home and work. Not all consumers who have access to the Internet have used it to make purchases. Less than half (48.3 percent) had ever purchased anything using the Internet. Fewer (41.8 percent) planned to purchase anything using the Internet in the next six months, and only 24.3 percent planned to purchase any Christmas presents using the Internet.

Concerns about Internet credit card purchases

As previously mentioned, consumers were least comfortable making credit card purchases using the Internet. Thus, they probably have the greatest amount of privacy concerns related to that particular type of retail purchase. Interestingly, the effects of these concerns on purchase behaviors were moderated by demographic variables (see Table V). Even though gender of the consumer had no effect on Internet purchase behaviors, income and age did have significant effects. Older consumers were less likely to have ever purchased anything using the Internet (33.1 percent older, 53.7 percent younger), and were also less likely to purchase anything (including Christmas presents) using the Internet in the next six months (23.1 percent older, 53.9 percent younger). Older consumers were also more likely to own a paper shredder (39.6 percent older, 23.5 percent younger). Higher income was also associated with greater likelihood of purchasing using the Internet. Consumers with higher incomes were more likely to make purchases using the Internet (67.8 percent higher, 29.3 percent lower), and were more likely to plan on making future purchases (including Christmas presents) using the Internet (60.2 percent higher, 27.4 percent lower). Consumers with higher incomes were also slightly more likely to own a paper shredder (33.9 percent higher, 20.7 percent lower).

Older and lower income consumers

These results suggest greater privacy concerns (with respect to purchasing using the Internet) among older and lower income consumers. However, we also found that older and lower income consumers were significantly less likely to have access to the Internet. Thus, it is not clear if purchase behaviors using the Internet are influenced more by privacy concerns or access to the Internet. It could also be that those consumers who have privacy concerns about the Internet choose not to have access to it (they would not use it for purchases because they are concerned about privacy).

Internet purchasing and consumer privacy concerns

Relation to Internet purchase behavior

Concerns about the collection and use of personal information were significantly related to consumers' purchase behaviors with respect to the Internet (see Table VI). Overall, consumers who made purchases using the Internet exhibited fewer privacy concerns. Consumers who had made a purchase using the Internet were more likely to agree that companies should be able to sell information about customers' buying habits (14.2 percent purchased, 11.0 percent not purchased), were less likely to agree that Government should regulate such information practices (56.2 percent purchased, 61.1 percent not purchased), but were also more likely to agree that customers should be informed (95.6 percent purchased, 87.6 percent not purchased) and have a say in such information gathering and selling practices (88.2 percent purchased, 84.1 percent not purchased).

	Gender	Income	Age
Have you ever purchased anything using the Internet?	1.7	35.0[**]	20.6[**]
In the next six months, do you plan to purchase anything using the Internet?	0.6	24.9[**]	35.1[**]
Do you plan to purchase any Christmas presents this year using the Internet?	0.0	16.7[**]	27.5[**]
Do you own a paper shredder?	0.37	5.7*	10.1[**]

Notes: a Chi-Square tests for differences in responses (yes or no) across the different levels of sex, income, and age. [*]$p < 0.10$; [**]$p < 0.01$

Table V. Relationship between Internet purchase behaviors and consumers' gender, income and age

	Sell	Regulate	Informed	Say	Easier
Have you ever purchased anything using the Internet?	8.5[*]	9.5[**]	19.1[***]	14.1[***]	0.0
In the next six months, do you plan to purchase anything using the Internet?	6.8	6.7	9.5[**]	6.9	2.5
Do you plan to purchase any Christmas presents this year using the Internet?	7.8[*]	10.3[**]	5.1	6.3	0.7
Do you own a paper shredder?	3.9	6.9	3.9	9.8[**]	5.6

Notes: Figures are chi-square tests for differences in privacy concerns (SA, A, N, D, SD) across the levels of purchase behavior (yes or no) [*]$p < 0.10$; [**]$p < 0.05$; [***]$p < 0.01$

Table VI. Relationship between Internet purchase behaviors and consumers' privacy concerns

Greater desire to be informed

Consumers who planned on making future purchases using the Internet were more likely to agree that companies should be able to sell customer information (15.5 percent planning, 10.4 percent not planning), were less likely to agree that government should regulate such practices (57.1 percent planning, 59.5 percent not planning), and were more likely to agree that customers should be informed of such information practices (94.5 percent planning, 88.7 percent not planning). As previously suggested, the greater desire to be informed might reflect a greater understanding and awareness of privacy issues. Also, consumers who owned a paper shredder were more likely to feel that customers should have a say in how companies use information about customers' buying habits (92.5 percent planning, 83.5 percent not planning). Shredding documents is a way of making your opinions known and exhibiting greater control over private information.

Managerial implications

Potentially sensitive data

As evidenced by the results of the current study and previous research, consumers are concerned about how personal information is collected and used by marketers. Consumers believe that they should be informed about how marketers use information about customers' buying habits. Consumers also believe that they should have a say in how this information is being used. How then, in the face of ever increasing concerns for consumer privacy, and popular press articles that continue to hype consumer concerns about privacy, should marketers approach the task of gathering potentially sensitive data about consumers' purchase behaviors?

Positioning and promotion

The answer lies in positioning and the manner in which such data collection efforts are promoted to consumers. Just as brands are promoted and positioned to occupy a clear place in consumers' minds with respect to competition and brand image, market research efforts should be positioned too. The current study shows that one common approach to gathering individualized consumer purchase patterns – supermarket discount cards – is seen by consumers as a promotional benefit and a tool to build loyalty through lower prices. Few consumers recognize that discount cards and loyalty programs are a means to building a database of personal purchase information. Consumers focus on what they gain from the loyalty cards (price differentials, promotion offers, and other loyalty-based advantages) rather than focus on the loss of personal anonymity. Discount cards and loyalty programs disguise data collection efforts and provide a guise for research efforts. They give consumers a benefit for providing their purchase information. Such loyalty programs compensate consumers for their personal information. Data collection must be positioned as providing a benefit to consumers. As Sheehan and Hoy (2000) suggest, compensation may

ameliorate privacy concerns. This may also explain why most consumers do not believe that companies should be able to sell information about customers—because they see no direct benefit to themselves.

Knowledge and control

Respondents wanted both knowledge and control of how information about customers' buying habits is used. This parallels the European Union's more stringent privacy policies. Yet, in typical US fashion, a slim majority agrees that the US government should intervene with regulations.

Demographics and privacy concerns
Are all consumers equally concerned about how their personal information is collected and used? No. Privacy concerns vary by consumers' age, income and sex. In the current study, younger consumers were more aware of data collection practices and were more aware of the financial benefits that might result from loyalty cards (reduced prices and individual promotions). Perhaps, younger consumers are more accustomed to and familiar with being compensated for their personal information. Younger consumers have been acculturated into the ''will pay for your information'' economic society. Older consumers were more likely to be concerned about financial privacy (see Wang and Petrison, 1993 for similar results). It is not surprising that older consumers were also more likely to own a paper shredder.

Income was also related to consumers' privacy concerns. Lower income consumers paid more attention to the compensation aspect of data collection. However, higher income consumers had a greater awareness and concern for privacy. In terms of consumers' gender, females had more privacy concerns. Such differences based on demographics suggest market segments and alternative positioning strategies for data collection efforts (in terms of the benefits consumers might receive for providing personal data).

Privacy concerns and types of retailers

Less resistance for traditional retailers

Do privacy concerns vary by the type of retailer from whom consumers purchase products? Yes. Even though all retailers might collect and use individual purchase data, privacy concerns varied by type of retailer. Consumers were more comfortable using credit cards (fewer privacy concerns) when buying from more traditional retailers (stores versus Internet). Traditional retailers using discount cards and store (retailer) credit cards to track purchase behaviors should see relatively less resistance derived from privacy concerns.

Privacy concerns and consumer purchasing

Effect on purchase behavior

Does increased concern for privacy have a direct negative effect on consumers' purchase behaviors? Not necessarily. Just because a consumer is concerned about how their personal information is collected and used does not mean that he or she will reduce their amount of purchasing. In the current study higher income consumers had more privacy concerns. But, higher income consumers were also more comfortable using their credit card to make purchases. However, given that the descriptive nature of the current study (there was no manipulation and control of variables as there would be in an experimental design), conclusions about the direct effect of one variable on another cannot be made. It is possible that higher income consumers have more credit cards and, as a result, are naturally more comfortable using credit cards. Needless to say, this particular issue needs further study.

Legal sanctions

Privacy and governmental intervention
There have been extensive efforts by state and federal legislators to provide some type of legal sanctions for misuse of information collected by marketers. If the US corporate world continues to ignore consumers' desires for information on privacy issues they are likely to do so at the peril of increased government regulation that neither businesses nor consumers want.

Limited predictive ability

Limitations
The current study was conducted in a moderately affluent, highly populated three-county area in a southern state. As such, these findings are limited in their ability to predict general consumer behavior across a wider range of consumer demographics. Approximately one-fifth of the contacts did not have access to the Internet either at home or at work and about half had never purchased anything online. Therefore, concerns related to the Internet may be understated or may be based on hearsay rather than actual experience. As familiarity with the Internet grows, the nature of concerns may shift.

The Gramm-Leach-Bliley Financial Services Modernization Act (2000) forced financial institutions to inform customers of how private data may be used. This Act went into effect after this survey was conducted. Receiving such material from financial institutions and being given a chance to opt out might increase consumers' attention to their privacy and magnify their concerns about privacy. Certainly it might cause consumers to wonder how non-financial services companies use personal information. Continued coverage in the popular press can also affect awareness and attitudes over time.

Consumer privacy is an important issue for marketers. It will not go away. Consumers are concerned about the privacy of their personal purchase information. Marketers must balance the need for data with the desire to provide a comfortable and secure means by which consumers can purchase products.

References

Cranor, L.F., Reagle, J. and Ackerman, M. (1999), *Beyond Concern: Understanding Net Users' Attitudes about Online Privacy*, AT&T Labs Research Technical Reports, 15 September.

Deibel, M. (2000), "Click and tell: unsuspecting children freely reveal private family details online", *The Tennessean*, May 23, p. D1.

DM News (2000), "People wary of online privacy, study says", available at: www.dmnews.com/articles/2000-10-23/11277.html (accessed 26 October).

Electronic Advertising & Marketplace Report (2000), "Strong new entrants crowd field for consumer privacy", *Electronic Advertising & Marketplace Report*, Vol. 14 No. 19.

Equifax (1996), *Equifax/Harris Consumer Privacy Survey*, Equifax/Harris, September 14, 2000.

Gervey, B. and Lin, J. (2000). "Obstacles on the Internet: a new *Advertising Age* survey finds privacy and security concerns are blocking the growth of e-commerce", *Advertising Age*, Vol. 71, April 17, p. I13.

Kate, N.T. (1998), "Women want privacy", *American Demographics*, Vol. 20, January, pp. 37ff.

Miyazaki, A.D. and Fernandez, A. (2000), "Internet privacy and security: an examination of online retailer disclosures", *Journal of Public Policy & Marketing*, Vol. 19 No. 1, pp. 54-61.

Moore, D.W. (2000), *Americans Say Internet Makes Their Lives Better*, The Gallup Organization, Princeton, NJ.

Newport, F. (2000), *Very Few Americans Have Personal Objections to Filling out Census Form*, Gallup News Service.

Nowak, G.J. and Phelps, J. (1995), "Direct marketing and the use of individual-level consumer information: determining how and when 'privacy' matters", *Journal of Direct Marketing*, Vol. 9 No. 3, pp. 46-60.

Phelps, J., Nowak, G. and Ferrell, E. (2000), "Privacy concerns and consumer willingness to provide personal information", *Journal of Public Policy & Marketing*, Vol. 19 No. 1, pp. 27-41.

Sheehan, K.B. and Hoy, M.G. (2000), "Dimensions of privacy concern among online consumers", *Journal of Public Policy & Marketing*, Vol. 19 No. 1, pp. 62-73.

Wang, P. and Petrison, L.A. (1993), "Direct marketing activities and personal privacy", *Journal of Direct Marketing*, Vol. 7 No. 1, pp. 7-19.

Warren, S.D. and Brandeis, L.D. (1890), "The right to privacy", *Harvard Law Review*, Vol. 4 No. 5, pp. 193-220.

■

This summary has been provided to allow managers and executives a rapid appreciation of the content of this article. Those with a particular interest in the topic covered may then read the article in toto **to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present**

Executive summary and implications for managers and executives

Privacy – responding to public concerns

The picture painted by Graeff and Harmon at the start of their article – to the more jaundiced eye – seems to show a nascent, Orwellian nightmare. Big Brother really is watching you! People are concerned about abuses of their privacy while, at the same time, recognizing the benefits that accrue from the intrusions described by Graeff and Harmon. In a free society, we will always find a conflict between individual rights and the need to ensure that civil society doesn't collapse into anarchy. In considering this conflict, we must begin by accepting that commercial freedoms are not inferior to other freedoms and deserve the same attention and protection.

Privacy presents a big challenge to consumer marketers as we endeavour to take full advantage of the technological possibilities presented by the Internet and database marketing while respecting the rights and concerns of the ordinary consumer. What comes across clearly from Graeff and Harmon's work is that marketers have to act if we are to avoid the further tightening of restrictions on the collection and use of personal information. Consumers may not be fully aware of the capabilities – or indeed the circumstances under which data are gathered – but those who claim to campaign on the consumer's behalf are rather better informed.

Tell the consumer what you are doing

Saying when and how you are collecting data should be an automatic assumption in consumer marketing. Even without fears about privacy infringement and data abuse, consumers should know about the information we collect.

Tell consumers what you are going to do with the information

Just as consumers need to know when we collect information – especially on-line – they need to know how we intend to use that information once we have got it. We should not change our use without informing the consumer that we intend to do so.

Offer the chance to opt out of giving information

This opt-out situation is a legal requirement in Europe but, regardless of legal concerns, it makes good business sense. The objective is reassurance – your business should be seen to be acting honestly and honourably.

Provide a benefit or reward for giving information

Private information is "owned" by the individual concerned and that person should receive some advantage from giving it to another party. The reward could be a cash payment or, more likely, a direct and understood benefit such as a discount.

Explain how the collection of information provides wider consumer benefits

Consumers get more than the direct benefit since – in database marketing terms – data collection and use allows for more efficient marketing. The result should be tangible advantages to the consumer coupled with efficiency gains for the business.

Report on data collection and use in your annual report
Not something that impinges on the ordinary consumer (who is very unlikely to read an annual report) but a valuable way of building the impression of responsible data collection and use.

The pressure for regulation of data use will grow and businesses need to recognize the significance of the concerns about privacy routinely expressed by consumer groups and picked up by consumer surveys. Every story about the misuse of data by a business adds to the chance of government intervention and, more importantly, undermines consumer confidence in the technology allowing rapid improvements in customer service, service quality and productivity.

Government – the worst offender?
One of the ironies about the calls for government regulation is that government itself is by far the biggest abuser of personal data. Too often the motivations for government agencies collecting and using data are opaque and governments demand rather than request personal data. It is to be hoped (perhaps vainly) that any regulation of data collection and use will be applied in equal measure to the public and private sectors.

Just to provide context what follows is a list of recent abuses of personal privacy perpetrated by one government or another:

- *Release of medical records to research organizations without patient permission.*

- *Reference to individual medical histories by politicians without clearance from the patient.*

- *Access to e-mail and telephone records without a stated reason or any legal process.*

- *Trawling of tax records by agencies not involved in tax collection (e.g. police and commerce departments).*

- *Gathering sensitive and controversial data on race and sexual preferences.*

- *Identification of voting.*

- *Collection and use of financial information beyond statements of income or expenditure (e.g. banking and investment specifics).*

- *Storage of DNA samples without the individuals' permission.*

The list is very concerning and reflects the fact that many managers in the public sector see personal information as a tool for enforcement or control unconnected with the rights of individuals.

The biggest change needed (it should not be in the USA given constitutional rights but probably is) would be the introduction of a clear right of "ownership" for personal data. This would still allow firms to collect and use data – with the consumer's permission – and would prevent governments from abusing personal data in a persistent and invidious manner.

(A précis of the article ''Collecting and using personal data: consumers' awareness and concerns''. Supplied by Marketing Consultants for Emerald.)

This article has been cited by:

1. Huseyin Yildirim, Amr M.T. Ali-Eldin. 2018. A model for predicting user intention to use wearable IoT devices at the workplace. *Journal of King Saud University - Computer and Information Sciences* . [Crossref]

2. Vivien Neumann, Maximilian Schreieck, Christoph Pflügler, Manuel Wiesche, Helmut Krcmar. Datenschutz bei Mobilitätsplattformen durch Privacy-by-Design 169-192. [Crossref]

3. Kushagra Kulshreshtha, Vikas Tripathi, Naval Bajpai. 2017. Impact of Brand Cues on Young Consumers' Preference for Mobile Phones: A Conjoint Analysis and Simulation Modelling. *Journal of Creative Communications* 12:3, 205-222. [Crossref]

4. WeinbergerMaor, Maor Weinberger, Zhitomirsky-GeffetMaayan, Maayan Zhitomirsky-Geffet, BouhnikDan, Dan Bouhnik. 2017. Factors affecting users' online privacy literacy among students in Israel. *Online Information Review* 41:5, 655-671. [Abstract] [Full Text] [PDF]

5. Aron Darmody, Mujde Yuksel, Meera Venkatraman. 2017. The work of mapping and the mapping of work: prosumer roles in crowdsourced maps. *Journal of Marketing Management* 33:13-14, 1093-1119. [Crossref]

6. Anna M. Turri, Ronn J. Smith, Steven W. Kopp. 2017. Privacy and RFID Technology: A Review of Regulatory Efforts. *Journal of Consumer Affairs* 51:2, 329-354. [Crossref]

7. Maor Weinberger, Dan Bouhnik, Maayan Zhitomirsky-Geffet. 2017. Factors Affecting Students' Privacy Paradox and Privacy Protection Behavior. *Open Information Science* 1:1, 1-18. [Crossref]

8. Maor Weinberger, Dan Bouhnik, Maayan Zhitomirsky-Geffet. 2017. Factors Affecting Students' Privacy Paradox and Privacy Protection Behavior. *Open Information Science* 1:1. . [Crossref]

9. Uroš Pinterič. A Trans-Disciplinary Approach Towards Understanding the State in the Information Society Era 49-60. [Crossref]

10. Timo Koivumäki, Saara Pekkarinen, Minna Lappi, Jere Väisänen, Jouni Juntunen, Minna Pikkarainen. 2017. Consumer Adoption of Future MyData-Based Preventive eHealth Services: An Acceptance Model and Survey Study. *Journal of Medical Internet Research* 19:12, e429. [Crossref]

11. Hongliang Chen, Christopher E. Beaudoin, Traci Hong. 2016. Teen online information disclosure: Empirical testing of a protection motivation and social capital model. *Journal of the Association for Information Science and Technology* 67:12, 2871-2881. [Crossref]

12. Rama Mohana Rao Katta, Chandra Sekhar Patro. 2016. Online Shopping Behavior. *International Journal of Sociotechnology and Knowledge Development* 8:4, 21-36. [Crossref]

13. May O. Lwin, Jochen Wirtz, Andrea J. S. Stanaland. 2016. The privacy dyad. *Internet Research* 26:4, 919-941. [Abstract] [Full Text] [PDF]

14. Tien Wang, Trong Danh Duong, Charlie C. Chen. 2016. Intention to disclose personal information via mobile applications: A privacy calculus perspective. *International Journal of Information Management* 36:4, 531-542. [Crossref]

15. Zhan Liu, Jialu Shan, Yves Pigneur. 2016. The role of personalized services and control: An empirical evaluation of privacy calculus and technology acceptance model in the mobile context. *Journal of Information Privacy and Security* 12:3, 123-144. [Crossref]

16. Yanna Krupnikov, Spencer Piston, Nichole M. Bauer. 2016. Saving Face: Identifying Voter Responses to Black Candidates and Female Candidates. *Political Psychology* 37:2, 253-273. [Crossref]

17. R.O. Sinnott, S. Sun. Spatial Privacy Challenges in Social Networks 269-283. [Crossref]

18. Jennifer Fries Taylor, Jodie Ferguson, Pamela Scholder Ellen. 2015. From trait to state: understanding privacy concerns. *Journal of Consumer Marketing* 32:2, 99-112. [Abstract] [Full Text] [PDF]

19. Clinton Amos, Lixuan Zhang, Iryna Pentina. 2014. Investigating Privacy Perception and Behavior on Weibo. *Journal of Organizational and End User Computing* 26:4, 43-56. [Crossref]

20. Purva Kansal. 2014. Online privacy concerns and consumer reactions: insights for future strategies. *Journal of Indian Business Research* 6:3, 190-212. [Abstract] [Full Text] [PDF]

21. Karsten Mueller, Tammo Straatmann, Kate Hattrup, Marco Jochum. 2014. Effects of Personalized Versus Generic Implementation of an Intra-Organizational Online Survey on Psychological Anonymity and Response Behavior: A Field Experiment. *Journal of Business and Psychology* 29:2, 169-181. [Crossref]

22. Christos Themistocleous, Andrew Smith, Christian Wagner. The ethical dilemma of implicit vs explicit data collection: Examining the factors that influence the voluntary disclosure of information by consumers to commercial organizations 1-6. [Crossref]

23. Jason Aaron Gabisch, George R. Milne. 2014. The impact of compensation on information ownership and privacy control. *Journal of Consumer Marketing* **31**:1, 13-26. [Abstract] [Full Text] [PDF]

24. Janice C. Sipior, Burke T. Ward, Regina Connolly. 2013. Empirically assessing the continued applicability of the IUIPC construct. *Journal of Enterprise Information Management* **26**:6, 661-678. [Abstract] [Full Text] [PDF]

25. Sunil Hazari, Cheryl Brown. 2013. An Empirical Investigation of Privacy Awareness and Concerns on Social Networking Sites. *Journal of Information Privacy and Security* **9**:4, 31-51. [Crossref]

26. Stephen Fox, Tuan Do. 2013. Getting real about Big Data: applying critical realism to analyse Big Data hype. *International Journal of Managing Projects in Business* **6**:4, 739-760. [Abstract] [Full Text] [PDF]

27. M. Brown, T. Coughlan, G. Lawson, M. Goulden, R. J. Houghton, R. Mortier. 2013. Exploring Interpretations of Data from the Internet of Things in the Home. *Interacting with Computers* **25**:3, 204-217. [Crossref]

28. Yong Jin Park. 2013. Digital Literacy and Privacy Behavior Online. *Communication Research* **40**:2, 215-236. [Crossref]

29. J. W. Bolderdijk, L. Steg, T. Postmes. 2013. Fostering support for work floor energy conservation policies: Accounting for privacy concerns. *Journal of Organizational Behavior* **34**:2, 195-210. [Crossref]

30. Janine L. Spears. The Effects of Notice versus Awareness: An Empirical Examination of an Online Consumer's Privacy Risk Treatment 3229-3238. [Crossref]

31. Mariem El Euch Maalej, Dominique Roux. 2012. Regimes of Critique and Conflicts of "Worlds": A Conventionalist Approach to Loyalty Programs. *Recherche et Applications en Marketing (English Edition)* **27**:4, 59-93. [Crossref]

32. Kenneth J. Sousa, Laurie E. MacDonald, Kenneth T. Fougere. 2012. Internet Privacy Concerns versus Behavior. *International Journal of Information Systems and Social Change* **3**:4, 53-64. [Crossref]

33. Matilda Dorotic, Tammo H.A. Bijmolt, Peter C. Verhoef. 2012. Loyalty Programmes: Current Knowledge and Research Directions*. *International Journal of Management Reviews* **14**:3, 217-237. [Crossref]

34. Joshua B. Hurwitz. 2012. Acceptance of Advertising and Collection of Personal Information. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* **56**:1, 1238-1242. [Crossref]

35. Yu "Andy" Wu, Victor R. Prybutok, Chang E. Koh, Bartlomiej Hanus. 2012. A nomological model of RFID privacy concern. *Business Process Management Journal* **18**:3, 420-444. [Abstract] [Full Text] [PDF]

36. Marcelo Vinhal Nepomuceno, Michel Laroche, Marie-Odile Richard, Axel Eggert. 2012. Relationship between intangibility and perceived risk: moderating effect of privacy, system security and general security concerns. *Journal of Consumer Marketing* **29**:3, 176-189. [Abstract] [Full Text] [PDF]

37. Lise M. Saari, Charles A. Scherbaum. 2011. Identified Employee Surveys: Potential Promise, Perils, and Professional Practice Guidelines. *Industrial and Organizational Psychology* **4**:04, 435-448. [Crossref]

38. Charles A. Scherbaum, Lise M. Saari. 2011. Identified Employee Surveys: Where Do We Go From Here?. *Industrial and Organizational Psychology* **4**:04, 487-493. [Crossref]

39. Ohbyung Kwon, Yonnim Lee, Debashis Sarangib. 2011. A Galois lattice approach to a context-aware privacy negotiation service. *Expert Systems with Applications* **38**:10, 12619-12629. [Crossref]

40. Soonyong Bae, Taesik Lee. 2011. Gender differences in consumers' perception of online consumer reviews. *Electronic Commerce Research* **11**:2, 201-214. [Crossref]

41. Craig E. Wills, Mihajlo Zeljkovic. 2011. A personalized approach to web privacy: awareness, attitudes and actions. *Information Management & Computer Security* **19**:1, 53-73. [Abstract] [Full Text] [PDF]

42. Alexander E. Reppel, Isabelle Szmigin. 2010. Consumer-managed profiling: a contemporary interpretation of privacy in buyer–seller interactions. *Journal of Marketing Management* **26**:3-4, 321-342. [Crossref]

43. Patrick Vesel, Vesna Zabkar. 2009. Managing customer loyalty through the mediating role of satisfaction in the DIY retail loyalty program. *Journal of Retailing and Consumer Services* **16**:5, 396-406. [Crossref]

44. SEOUNMI YOUN. 2009. Determinants of Online Privacy Concern and Its Influence on Privacy Protection Behaviors Among Young Adolescents. *Journal of Consumer Affairs* **43**:3, 389-418. [Crossref]

45. David G. Taylor, Donna F. Davis, Ravi Jillapalli. 2009. Privacy concern and online personalization: The moderating effects of information control and compensation. *Electronic Commerce Research* **9**:3, 203-223. [Crossref]

46. Efrim Boritz, Won Gyun No. A Gap in Perceived Importance of Privacy Policies between Individuals and Companies 181-192. [Crossref]

47. SEOUNMI YOUN. 2008. Parental Influence and Teens' Attitude toward Online Privacy Protection. *Journal of Consumer Affairs* **42**:3, 362-388. [Crossref]

48. Benjamin D. Renegar, Katina Michael, M.G. Michael. Privacy, Value and Control Issues in Four Mobile Business Applications 30-40. [Crossref]

49. J. Efrim Boritz, Won Gyun No, R.P. Sundarraj. Internet Privacy in E-Commerce: Framework, Review, and Opportunities for Future Research 204-204. [Crossref]

50. I. Rodríguez-Ardura, A. Meseguer Artola, J. Vilaseca i Requena. 2008. EL COMERCIO ELECTRÓNICO EN PERSPECTIVA: DINÁMICA Y DESENCADENANTES. *Investigaciones Europeas de Dirección y Economía de la Empresa* **14**:3, 55-66. [Crossref]

51. Silvana Faja, Silvana Trimi. 2008. Privacy concerns in e-commerce: an empirical investigation of gender differences. *International Journal of Electronic Business* **6**:4, 386. [Crossref]

52. May Lwin, Jochen Wirtz, Jerome D. Williams. 2007. Consumer online privacy concerns and responses: a power–responsibility equilibrium perspective. *Journal of the Academy of Marketing Science* **35**:4, 572-585. [Crossref]

53. Patricia A. Norberg, Daniel R. Horne. 2007. Privacy attitudes and privacy-related behavior. *Psychology and Marketing* **24**:10, 829-847. [Crossref]

54. J. Alberto Castañeda, Francisco J. Montoso, Teodoro Luque. 2007. The dimensionality of customer privacy concern on the internet. *Online Information Review* **31**:4, 420-439. [Abstract] [Full Text] [PDF]

55. Jamonn Campbell, Nathan Greenauer, Kristin Macaluso, Christian End. 2007. Unrealistic optimism in internet events. *Computers in Human Behavior* **23**:3, 1273-1284. [Crossref]

56. Kathryn Waite, Tina Harrison. 2007. Internet archaeology: uncovering pension sector web site evolution. *Internet Research* **17**:2, 180-195. [Abstract] [Full Text] [PDF]

57. Mike Z. Yao, Ronald E. Rice, Kier Wallis. 2007. Predicting user concerns about online privacy. *Journal of the American Society for Information Science and Technology* **58**:5, 710-722. [Crossref]

58. Steve McRobb. 2006. Let's agree to differ: varying interpretations of online privacy policies. *Journal of Information, Communication and Ethics in Society* **4**:4, 215-228. [Abstract] [PDF]

59. Andrew Charlesworth. 2006. The future of UK data protection regulation. *Information Security Technical Report* **11**:1, 46-54. [Crossref]

60. Joel R. Evans, Anil Mathur. 2005. The value of online surveys. *Internet Research* **15**:2, 195-219. [Abstract] [Full Text] [PDF]

61. Seounmi Youn. 2005. Teenagers' Perceptions of Online Privacy and Coping Behaviors: A Risk–Benefit Appraisal Approach. *Journal of Broadcasting & Electronic Media* **49**:1, 86-110. [Crossref]

62. Gwo-Guang Lee, Hsiu-Fen Lin. 2005. Customer perceptions of e-service quality in online shopping. *International Journal of Retail & Distribution Management* **33**:2, 161-176. [Abstract] [Full Text] [PDF]

63. Dina Ribbink, Allard C.R. van Riel, Veronica Liljander, Sandra Streukens. 2004. Comfort your online customer: quality, trust and loyalty on the internet. *Managing Service Quality: An International Journal* **14**:6, 446-456. [Abstract] [Full Text] [PDF]

64. Steve McRobb, Simon Rogerson. 2004. Are they really listening?. *Information Technology & People* **17**:4, 442-461. [Abstract] [Full Text] [PDF]

65. Corine Noordhoff, Pieter Pauwels, Gaby Odekerken-Schröder. 2004. The effect of customer card programs. *International Journal of Service Industry Management* **15**:4, 351-364. [Abstract] [Full Text] [PDF]

66. Calin Gurau, Ashok Ranchhod, Claire Gauzente. 2003. "To legislate or not to legislate": a comparative exploratory study of privacy/personalisation factors affecting French, UK and US Web sites. *Journal of Consumer Marketing* **20**:7, 652-664. [Abstract] [Full Text] [PDF]

67. Curt J. Dommeyer, Barbara L. Gross. 2003. What consumers know and what they do: An investigation of consumer knowledge, awareness, and use of privacy protection strategies. *Journal of Interactive Marketing* **17**:2, 34-51. [Crossref]

68. Rama Mohana Rao Katta, Chandra Sekhar Patro. Online Shopping Behavior 1413-1429. [Crossref]

69. Clinton Amos, Lixuan Zhang, Iryna Pentina. Investigating Privacy Perception and Behavior on Weibo 1355-1369. [Crossref]