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COLLEGE OF MANAGEMENT AND TECHNOLOGY

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ABSTRACT

The Relationship of Financial Incentives and Consumers' Willingness to
Disclose Information to e-Commerce Marketers

by

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Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
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ABSTRACT

In this study the problem examined was a lack of research based information on the degree to which incentives can be used to encourage consumers to volunteer private information. The purpose of this study was to determine if monetary incentives would be a beneficial means to increase consumers' involvement in eCommerce and thereby boost the growth of eCommerce and the economy. Through this statistical quantitative study, the first research question asked whether financial incentives were significantly related to consumers' willingness to disclose their private information. The second research question asked whether different levels of incentives could entice consumers to disclose private data of varying types of sensitivity. A referral sample ($N=110$) of Internet users completed an eSurvey, on whether they would provide sensitive private information for varied incentive offers. Based on an established conceptual model for understanding consumers' privacy concerns, cross-tabulation of the financial incentives against consumers' willingness to disclose private data were performed. Chi-square tests ($p=.05$) of the data revealed consumers were very hesitant to disclose private information; however, men and the age group of 40-59-year-olds were more willing to do so than women and other age groups. This research indicates to legislators to protect consumers' privacy as a way of boosting the growth of eCommerce and the economy, for a positive social change.

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CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

Rapid advances in technology and the use of the Internet have triggered revolutionary changes in the lives of many individuals around the world. The Internet has become a consistent and speedy source of information. It has also become a tool that has brought together individuals from near and far and allowed them to communicate and conduct business effectively and efficiently (Nam, Song, Lee, & Park, 2006). This new arena for conducting business—often referred to as electronic commerce, or eCommerce—has fundamentally changed the way organizations do business and the way individuals purchase products and services (Chidambaram, 2001).

eCommerce has provided equal opportunities for large multinational companies and small firms alike to market their products and services conveniently to consumers around the globe. It has further enabled consumers to purchase the products and services they want from anywhere with little effort. Hence, eCommerce has accelerated global marketing and, as a result, has had a great effect on the global economy (Hwang, Jung, & Salvendy, 2006).

The services available through eCommerce touch many sectors of social and public life such as information retrieval, electronic learning,

and financial services. Additionally, they include models and ideas of convenient and customized services such as customized learning, travel arrangements, marketing, and advertising for consumers. Even government-offered services such as electronic tax filing and online voting are already in use or envisioned to be offered to the public through the Internet (Dinev & Hart, 2006).

These visions of Internet usage could not be realized or sustained if organizations, public or private, were unable electronically to collect, store, and analyze consumers' private information. In fact, consumer information has become one of eCommerce's most sought-after assets because organizations can use it to widen their consumer base, improve consumer retention rates, customize services, and build strategic relationships with their consumers (Dinev & Hart, 2006).

Consumers appreciate the benefits of using eCommerce and are enthusiastic about receiving convenient, personalized, and speedy services. However, many people feel uncomfortable with the need to share private information, which is collected from them when they engage in business transactions. Consumers are concerned about user vulnerability related to information and personal privacy (Dinev & Hart, 2006).

The consumers' privacy concerns are legitimate and well-founded. The use of the Internet for online activities and transactions generates

electronic footprints, which could identify the user's preferences, interests, and behaviors. Such detailed user information could be generated even if the user never submits personally identifiable information. As a result of this information generation, the Internet could be used to observe users' activity and to gather abundant amounts of information about the user. The gathered information could then be used by organizations to further their own interests. Therefore, consumers' privacy concerns are well-founded. In fact, privacy has been identified as the primary concern among Internet users (Bush, Bush, & Harris, 1998; Graeff & Harmon, 2002), and this is an important barrier to eCommerce development. Specifically, consumers have identified invasion of privacy, or the requirement to submit personal information, as the primary factor that discouraged them from shopping online (Dinev & Hart, 2006).

Clearly, a conflict exists between two trends in eCommerce. Organizations need to acquire private information from their consumers to provide consumers with better services, increase their sales, and remain competitive. Yet, the consumers' need for privacy and their growing concern about the vulnerability and threat to their private data form a conflicting trend in eCommerce (Dinev & Hart, 2006). Resolving this conflict is important because it will aid in the increased utilization of eCommerce and, thereby, in the growth of the domestic and global economy. Because of this importance, it is imperative to manage the

privacy concerns of consumers. This study was an attempt to further the understanding of potential avenues for mitigating consumers' privacy concerns and, thereby, aiding the growth of eCommerce.

Statement of the Problem

Electronic commerce holds enormous potential for revolutionizing and globalizing businesses and the economy. Therefore, the use of eCommerce and the means to realize its full potential are of paramount importance for the growth of the domestic and the global economy (Javalgi, Wickramasinghe, Scherer, & Sharma, 2005). However, eCommerce currently holds a small, if increasing, share of the total economy. Examples of the major players in eCommerce are Amazon.com, eBay, and Yahoo Shopping. These players are considerable drivers of their state's economy (Brown & Riley-Katz, 2008).

One of the reasons for the lack of faster growth of eCommerce is the consumers' concerns about online privacy. At first, the use of eCommerce without a face-to-face contact seemed to enhance privacy. However, in practice, eCommerce marketers have asked their consumers for much private information (Feigenbaum, Parkes, & Pennock, 2009). These requests for disclosure of private information, which include not only the consumers' demographic data, but at times also their addresses, product preferences, account numbers, and even their Social Security

numbers, have led to the consumers' increased concern for information privacy. Initially, these concerns lead to lack of trust on the part of consumer and, subsequently, to rightful disloyalty and abstention from eCommerce transactions (Miyazaki, 2008).

At times, businesses have tried to settle consumers' concern by offering them financial incentives and benefits in exchange for the voluntary disclosure of their personal information. The results of these financial incentives, however, have been contradictory. Some studies showed that financial incentives were successful in enticing consumers to disclose their private information, whereas others showed no success in this respect. One reason for this contradiction might be the type of information sought from the consumer. For example, consumers might be willing to release their e-mail addresses for a financial incentive, but not their credit card numbers. The problem for marketers is a lack of research-based information about (a) how financial incentives relate to consumer responses for the voluntary disclosure of private information, and (b) which types of information are considered most sensitive by consumers. This study sought to address the problem as specified in the section on the research purpose.

Background of the Problem

Over the past decade, information privacy has received considerable attention among researchers in many fields, such as the law, public policy, marketing, organizational behavior, and information systems (Caudill & Murphy, 2000; Culnan, 2000; Goodwin, 1991; Smith, Milberg, & Burke, 1996). Dhillon and Moores (2001) stated two reasons for the increased importance and attention given to information privacy concerns. First, a more competitive business environment is forcing businesses to collect more private information about their consumers. As businesses need to compete in eCommerce without face-to-face contact with their consumers, they have been forced to collect and store information about them in order to understand their behavior, needs, and desires. Second, advances in information technology have made it possible not only to quickly collect and transfer large amounts of data, but also to swiftly map the patterns of the consumers' behavior. As a result of this increased collection and use of consumers' private information, violations of consumers' privacy have occurred.

In fact the Federal Trade Commission (FTC) reported for the fifth year in a row that identity theft was on top of their list of most reported frauds. It has further been predicted that consumer concerns with data privacy and security will likely increase over the next few years (Poindexter, Earp, & Baumer, 2006). Consumers now more than ever are

concerned about the privacy of their information. A recent *Consumer Reports* poll showed that consumers are so concerned about their privacy that they have taken it upon themselves to limit the information that is being collected and shared about them over the Internet. The poll showed that about 35% of them have used alternate e-mail addresses, about 26% have used software to hide their identity, and about 25% have provided false information in order to access a website (U.S. Newswire, 2008). Brannen (2007) recently reported that, because of criminal activities of data theft through the Internet, the importance of protecting the consumers' privacy has escalated to a "mission-critical" (p. 20) status for organizations in the public and private sectors.

Reducing consumers' online privacy concerns not only addresses protection of consumers' basic rights and expectations, but it also allows for increased eCommerce activity and will thus contribute to the growth of the global economy. In response to public concern, many countries have implemented varying degrees of privacy legislation (Grupe, Kuechler, & Sweeney, 2002; Milberg, Smith, & Burke, 2000). While European Union (EU) member countries have implemented strict controls on consumers' private information, the United States has relied primarily on companies to regulate themselves voluntarily (Faja, Silvana, & Trimi, 2006). Some individuals consider this to be a more business-

friendly, market-oriented approach, whereas other individuals consider it a lack of rigor (Ashrafi, 2005; McKenna, 2001).

Perceptions of privacy violations may vary from person to person. Privacy research has shown that the perception of privacy violation could be influenced by actions of businesses. One of the actions some businesses have taken to mitigate the privacy concerns of their consumers is to offer financial incentives for the disclosure of such information. This process has been successful at times because consumers enjoyed the monetary benefits offered to them and have thus knowingly disclosed their information (Fusilier & Hoyer, 1980). Fusilier and Hoyer (1980) showed that, when consumers voluntarily grant permission of disclosure, their perception of privacy invasion is considerably reduced. In addition to financial incentives such as money and discounts, many businesses have offered their consumers prizes, raffles, and free shipping in exchange for private information such as name, address, e-mail address, and phone number (Hann, Hui, Lee, & Png, 2007).

Although the literature review produced several pioneering studies on online privacy in general (Miyazaki & Fernandez, 2000, 2001; Sheehan & Hoy, 2000), few studies could be found that examined the relationship between financial incentives and enticement of consumers voluntarily to release their private information. Studies that did examine

this topic showed contradictory results. For example, Hann et al. (2007) found that websites that offered benefits such as a monetary reward and future convenience significantly increased consumers' preferences for those websites. However, Ward, Bridges, and Chitty (2005) found that the benefits of incentives such as price discounts and personalized service were not effective in terms of gaining consumers' personal information.

Purpose of the Study

The purpose of this study was to examine whether financial incentives would aid consumers and eCommerce marketers in a mutually beneficial manner and potentially contribute to better utilization and growth of eCommerce. The growth of eCommerce will ultimately lead to the growth of the domestic and the global economy. Examining whether eCommerce marketers actually possess the means for actively managing the privacy concerns of consumers through financial incentives could inform eCommerce marketers if and what kinds of information they might be able to obtain from their customers. The voluntary release of consumer information benefits organizations through better product marketing and therefore with higher sales and income. It can also benefit the consumer through better product choices and more convenient product purchases and service use. This study

sought to determine whether financial incentives would act in a mutually beneficial manner and contribute to the better utilization and growth of eCommerce and, ultimately, the growth of the domestic and the global economy.

Research Questions

The following research questions guided the study:

1. To what extent, if any, are financial incentives related to consumers' willingness to disclose their private information to eCommerce marketers?
2. What is the relationship between financial incentives and the different types of sensitive information consumers would be willing to disclose to marketers (i.e., personal, financial, or medical)?

Theoretical Framework and Conceptual Foundation

In order to answer the research questions, some factors related to the consumers' willingness or unwillingness to disclose their private information to eCommerce marketers need to be reviewed. Phelps, Nowak, and Ferrell (2000) proposed a conceptual foundation for understanding consumers' privacy concerns. Their concept was founded on the notion that there are likely sequences of input and outcomes relative to consumers' concern about the marketers' use of their private

information. The consumers' concerns were found to be determined by four general factors: (a) the type of private information requested, (b) the amount of information control offered, (c) the potential consequences and benefits offered in exchange, and (d) consumer characteristics. The purpose of the conceptual foundation by Phelps et al. was to determine which factors had the greatest impact on driving consumer concerns. Ward et al. (2005) later used this conceptual foundation and created a schema for studying the effects of incentives on consumers' online privacy concerns. This conceptual schema is depicted in Figure 1 and is utilized in this study.

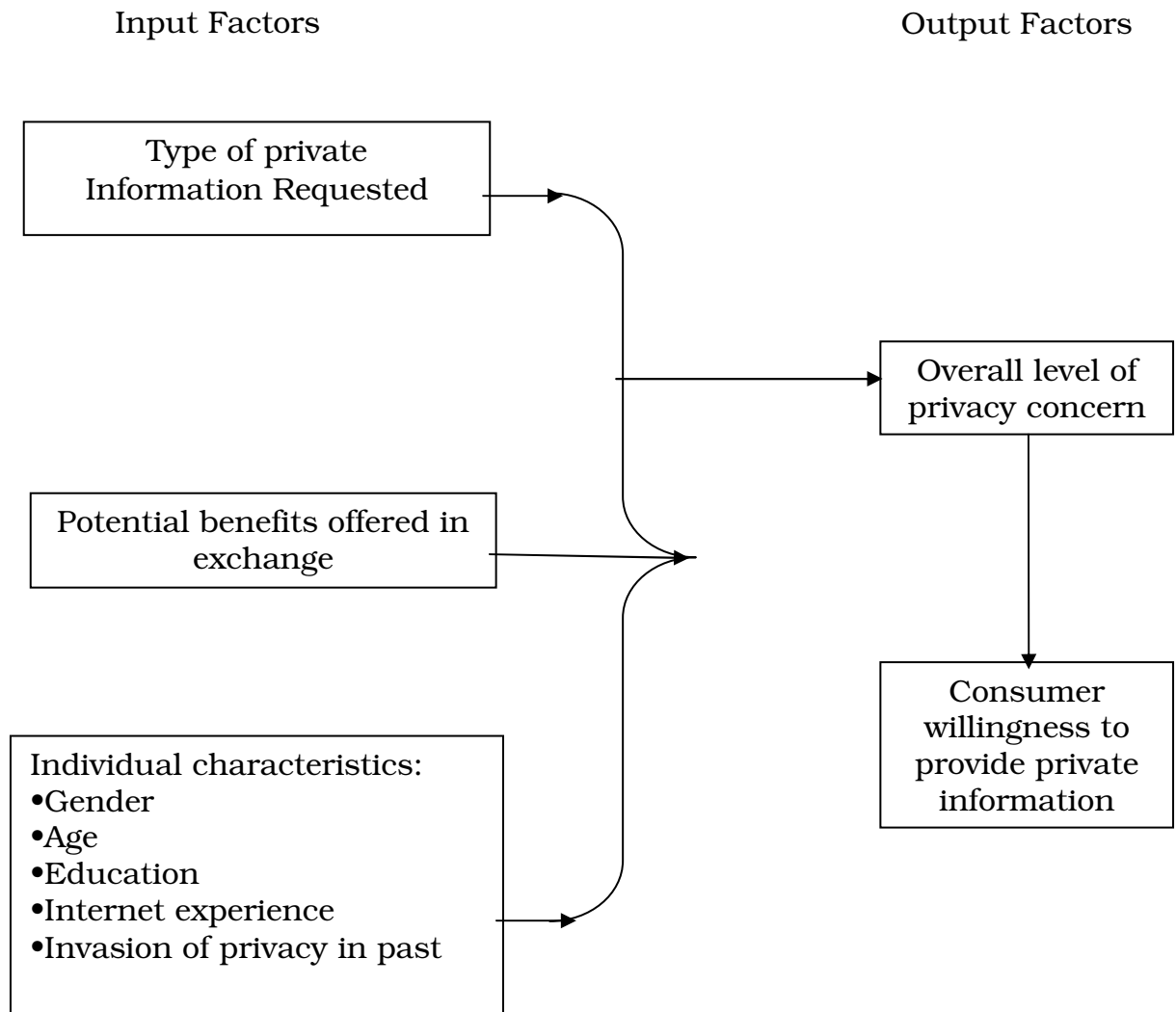


Figure 1. A conceptual framework for relating factors that impact consumers' willingness to provide private information.

Assumptions

The following assumptions are made in this study:

1. eCommerce is a main element in the global and domestic economy.
2. eCommerce cannot function without consumers' private information.
3. Identity theft and other information privacy violations are a fact of life today. Therefore, consumers have a very good reason to be sensitive about disclosing certain types of private information to anyone, including the eCommerce marketers.
4. Mitigating consumer concerns about online information privacy could be beneficial for both consumers and eCommerce.
5. Greater consumer involvement in eCommerce will contribute to the growth of eCommerce and, thereby, to the growth of both the domestic and the global economy.

Scope and Limitations

This study was conducted through referral sampling, where an electronic survey was sent to an individual and that person electronically sent it out to other individuals. Therefore, the breadth of this study might not have been limited to the United States and could have included individuals from all over the globe. As a result, the general

influence of privacy relative to a particular culture was not taken into account in this study.

At least 100 responses were expected to be returned with a wide distribution of the respondents' age and other demographic characteristics such as educational background. The actual number of responses received was 115. The participants had to fill out an electronic survey and convey their opinions about various settings involving offerings of financial incentives in exchange for the disclosure of their private information. A sample of this survey is provided in Appendix A.

Several limitations pertained in this research as well:

1. Convenience sampling was based on referrals for this study as a practical means of reaching the participants in the target population, that is, Internet users. Therefore, the results of this study are limited to an approximate representation of the Internet-user population and not a statistically derived random sample.

2. The survey conducted in this study measured the intention of the participants, not their actual behavior. For example, participants indicated how they would behave if they were offered a \$25 financial incentive on their purchase in exchange for their private information. The participants did not report any actual behavior under those circumstances. Although the measurement of intention is commonly accepted as a measure of behavior, the measurement of the participants'

actual behavior under test settings would strengthen the validity of this study (Dinev & Hart, 2006).

3. This study did not measure the privacy sensitivity of the participants. However, privacy sensitivity has been shown to vary among individual consumers with respect to their private information (Berendt, Günther, & Spiekermann, 2005; Gatti, 2003). The privacy sensitivity of the participants might have affected their responses.

4. The eCommerce marketers requesting the private information (personal, financial, and medical) in this study were not well-known. In order to alleviate the impact of lack of trust, it was mentioned during the study that each company involved in asking for information was a trustworthy company. Care must be taken not to apply the results of this study to lesser known, and presumably less trusted, marketers requesting information. Studies have shown that trust could influence participants' responses.

5. Lack of information regarding the quality of the marketers' privacy policy is another limitation of this study. The participants were informed that the marketer requesting the information had a privacy policy in place. However, the quality of this policy was not detailed. Perhaps different levels of quality of a marketers' privacy policy would impact the participants' willingness to disclose private information differently in exchange for a financial incentive.

Nature of the Study

The nature of this quantitative study involved the intentions and opinions of participants about hypothetical scenarios. This study did not involve observation of participants in their natural settings. The participants canvassed regarding whether they would disclose their private information to eCommerce marketers for financial gains took place under proposed hypothetical situations. The nature of the study lent itself to quantitative methods.

Three hypothetical scenarios were studied through an eSurvey. In the first scenario, Terrazon.com offered participants financial gains in exchange for their personal information. In the second scenario, Union Bank of America offered participants financial gains in exchange for their financial information. In the third scenario, Green Cross offered the participants financial gains in exchange for their medical information. A detailed description of the three hypothetical scenarios can be found in the first three questions of the survey (Appendix A). Furthermore, the amount of the financial incentive was offered at three different levels (i.e., \$25, \$50, and \$100) to different participants.

The independent variable in the study was financial incentive; the dependent variable was the consumers' willingness to disclose their private information. Participants were selected through electronic referral

sampling, and their responses were measured. Data analysis was performed, and findings were analyzed for results and conclusions.

A survey was chosen for data collection. Surveys are frequently used for data collection regarding opinions and intentions. Referral sampling was chosen as a solid method of reaching an array and variety of users of both genders and a wide spread of age groups, educational backgrounds, and varying degrees of intentions and opinions on consumer privacy. Because the focus of this study was online consumer privacy, utilization of an eSurvey was thought to be the correct fit for reaching participants and collecting their varying intentions. A more detailed discussion of the research methods, survey instrument, and participants is provided in chapter 3.

Definition of Terms

The following terms were operationally defined for use in this study:

Customization: Customization refers to a user-driven modification of a website's look and feel (Ho, 2006).

eCommerce: eCommerce is the electronic engagement in commercial transactions by companies and individuals without paper documents (Berg & Van Lieshout, 2001). For the purpose of this study, the specific type of electronic medium was the World Wide Web;

therefore, the word *electronically* could be defined as via the Internet (Berg & Van Lieshout).

Information privacy: Information privacy is the assertion of the right by individuals, groups, or institutions to determine when, how, and to what extent information about them is communicated to others (Westin, 1967).

Internet Age: The Industrial Age was characterized by mass production and mass marketing techniques. The Information Age followed with characterizations of gains in productivity via computers and the labors of knowledge workers. After 1995, the Internet Age began; it is currently ongoing. The Internet Age is characterized by use of the World Wide Web for various activities (*ABA Banking Journal*, 2001).

Internet users: For the purpose of this study, Internet users are those who use the Internet at least 6 hours per week. Ward et al. (2005) defined Internet users similarly in their study of consumer online privacy in Australia.

Personal information: Personal information is data that can identify an individual consumer such as name, address, e-mail address, age, gender, education, product preferences, and selection preferences or what helps a consumer to make a selection (Culnan, 2000).

Personalization: "Personalization is the process of providing relevant content based on individual user preferences," wrote Ho (2006,

p. 42). He continued, "Personalized sites can obtain that information implicitly by tracking customer purchases or usage habits in order to know the types of products/services that a customer likes, dislikes, needs, or wants" (p. 42).

Private information: Private information is any information that an individual believes should not be shared with others. Examples of private information are personal information (e.g., name and address), financial information (e.g., bank account number, credit card number), and medical information (e.g., medical history records, prescription records).

Right to privacy: Right to privacy refers to "an individual's right to conduct his or her affairs without being compelled to reveal information he or she does not wish to reveal" (Schulte Scott, 1999, p. 26).

Target marketing: Target marketing is the process of maximizing the return on a firm's marketing investment by directing its marketing message to specific households that are both qualified and most likely to buy because of their demographic characteristics and prior purchasing behavior. Target marketing is a strategy businesses employ to identify, quantify, locate, and reach their best consumers. Consumers might be defined by one or more demographic characteristics as well as lifestyles, behaviors, and attitudes (Target Marketing, 1996, p. 50).

Violation of privacy: Violation of privacy occurs when an organization, in its efforts to pursue the organization's objectives,

collects, stores, manipulates, or transmits personal information unbeknownst to the individual (Hann et al., 2007).

Significance and Social Change Implications of the Study

This study is among the first to address offering financial incentives to consumers in exchange for their private information with a specific focus on the sensitivity of the type of information sought.

Previous research by Hann et al. (2007), Malhotra, Kim, and Agarwal (2004), and Ward et al. (2005) examined consumer privacy in different contexts such as a focus on whether consumers are concerned about privacy when using the Internet. These researchers, however, did not explore potential variabilities in the consumers' willingness to reveal information associated with the different types of information sought by businesses.

The importance of this study resides in the fact that its results will show eCommerce marketers that they might be in possession of the means to actively mitigate the privacy concerns of their customers. Through financial incentives, marketers might be able to elicit certain types of information from consumers. Heretofore, there was a gap in the literature regarding the relationship between financial incentives and consumers' willingness to disclose various types of information. This study aimed at starting to close this gap by revealing to management

certain facts about consumer attitudes regarding specific types of data businesses are attempting to obtain. The results of this study could have a considerable impact on the strategies and the paths eCommerce managers will need to take in order for eCommerce to grow. In turn, the growth of eCommerce could significantly contribute to the growth of both the domestic and the global economies.

In modern history, free trade has gone hand in hand with free parliaments and free speech (Trentmann, 2008). Paramount to free trade has been a society's commerce. In today's societies, commerce is intertwined with eCommerce. Advancements in technology and its use have generally made life more efficient. Thus, technology has greatly contributed to positive social change. Expansions and growth of eCommerce is part of the application of technology for the betterment of society. The growth, expansion, and improvement of eCommerce will benefit many societies and contribute to positive social change.

The Internet has become a powerful medium for participation in eCommerce. Utilization of the Internet has allowed for conducting business transactions without geographic boundaries, thus making eCommerce an important part not only of the domestic economy, but of the global economy as well. The economy is a major aspect of any society. Consequently, an improvement in the economy will directly improve social conditions of individuals, communities, organizations,

institutions, and society as a whole. The social change implications of this study are an improved cross-border trade in eCommerce, an improved domestic and global economy, and thereby improved social conditions.

Chapter Summary and Overview of the Study

One way eCommerce can grow is by gathering, storing, and analyzing consumer data in order to offer more appropriate products and services, increase sales, and remain competitive. As a result of better product and service selection, consumers enjoy the benefits of convenience and personalization through eCommerce. However, because the new technology makes data collection, transfer, storage, and analysis of private information easier than ever before and because there has been misuse and criminal activity involving consumer information (e.g., identity theft), consumers have become increasingly concerned about the use and misuse of their private information. Many consumers have, therefore, become hesitant about engaging in eCommerce transactions.

Some organizations have offered financial incentives to consumers to mitigate their concerns and entice them to release their private information voluntarily to eCommerce marketers. Offering such incentives has proven to be effective in some cases and ineffective in others. Studies of the success of financial incentives as a means to reduce consumers' privacy concerns produced contradictory results. One reason for these contradictory findings might be the type of information sought from the consumer. The present study is one of the initial investigations into what the effects of disclosing certain types of information about themselves might have on consumers and whether

financial incentives might be able to mitigate the consumers' concerns about disclosing such data over the Internet.

The specific types of private information sought by eCommerce marketers and analyzed in this study were personal (e.g., name, address, e-mail address), financial (e.g., bank account number, credit card number), and medical (e.g., physical exam history, prescription history). An eSurvey research was conducted through referral sampling.

Chapter 2 presents a review of the literature regarding consumer privacy and the contradictory research results regarding the effectiveness of incentives, the history of privacy acts, and a rationale for selecting an eSurvey for data collection from a referral sample of Internet users. Chapter 3 provides a description of the research methods used in this study, including research design; a description of the target population and sampling procedure; a discussion of the eSurvey, its validation, and reliability; and data collection and data analysis procedures. Chapter 4 presents the results of the data analysis and answers the research questions posed for the study. Chapter 5 presents a brief summary of the study and discusses its limitations and implications for positive social change through the potential growth eCommerce and, thereby, of the domestic and global economy. Recommendations are offered for practical application and future research.

CHAPTER 2: REVIEW OF LITERATURE

Introduction

The Internet Age and the rapid advancements in eCommerce have brought with them public concerns for online consumer privacy. These public concerns are real and valid. With every website visit, the consumer leaves behind an electronic foot print, which can be traced and analyzed. The collection of such data, combined with the technology to store them, has led to the profiling of consumers at an unprecedented rate. The collected data can be used by eCommerce marketers or sold to other parties for the purpose of identifying and utilizing consumer needs and preferences. However, these data collections can also be used to the consumers' detriment (Hann et al., 2007).

Many studies have been undertaken to gain a better understanding of consumer privacy in eCommerce. A review of some of these studies will be presented in this chapter. The first step in the literature search was taken toward a better understanding of why consumers are so concerned about their online privacy. Current publications identified an increase in fraud and identity theft by means of consumer information found on the Internet. The literature search also revealed an increase in demand by eCommerce marketers for consumers' private information for the enhancement of products and service

selections and, subsequently, the marketers' income. The significance of this increased demand was identified as eCommerce's increasing need for consumer information. The next step in the literature review entailed creating an outline of the various facets of the conflict between consumers' desire to take advantage of the benefit offered by eCommerce transactions and their hesitation to get involved with eCommerce because of privacy concerns. A further step in the literature review, which will be covered in later sections of this chapter, was dedicated to identifying studies dealing with how to reduce consumers' privacy concerns as a primary means of increasing their participation in eCommerce and, thereby, helping to improve the economy. Identifying means to reduce consumers' privacy concerns was shown to be of great importance as well as a necessary and timely research topic.

One avenue for mitigating the consumers' privacy concerns was tried with mixed results: the offer by eCommerce marketers of financial gains in exchange for the consumers' willingness to disclose their private information. The literature review revealed that, when consumers' willingly disclosed their information, their privacy concerns were eased. The literature, however, showed conflicting results in studies of consumers' willingness to disclose private data. One possible reason for these inconsistent research results might be found in the different levels of sensitivity obtaining to different types of data sought from consumers.

The literature review revealed a lack of studies mindful of this seemingly crucial distinction.

This chapter begins with a review of privacy issues of consumers prior to the Internet Age and shows how the advancement of technology has brought privacy issues to the forefront of consumers' concerns. A review of the history of privacy acts to protect and empower consumers is followed by a look at the importance of privacy on the Internet. An in-depth review of the existing research on consumer privacy is organized according to some of the categories that emerged from the literature itself, such as studies of consumer concerns revolving around the processes used by organizations to collect and analyze consumer data or consumer characteristics leading to certain attitudes toward eCommerce participation. Procedures to protect consumer privacy, build trust, and give consumers control over the use of their private information are discussed next. Other studies focusing on ease of use, security, and privacy will also be reviewed.

At this point in the literature review, the consumers' privacy concerns will have been clearly drawn. This is followed by a review of studies on how to mitigate these very real and valid concerns, including those that suggest that consumers might be willing to disclose their sensitive information voluntarily in exchange for a certain amount of monetary value. The importance of asking permission for disclosure will

be emphasized; thereafter, the review will focus on the consumers' willingness to disclose their private data in exchange for financial gain.

To summarize, the literature review will start by exposing the conflicting results in studies on consumers' willingness to disclose their private information in exchange for financial gains. A possible reason for the divergent results was thought to be the difference in the level of sensitivity of various types of personal data. This aspect of different levels of sensitivity inherent in personal data represented a gap in the literature to which the present study has now addressed itself.

Privacy Before the Age of the Internet

Many people think of privacy as a modern concern brought out in society by industrialization, urbanization, and mechanization. However, privacy has its roots in primitive society, noted Lanier and Saini (2008). Humans have always sought a balance between seclusion and social interaction. To reach this balance, humans have often wanted control over the disclosure of their private information (Lanier & Saini, 2008). It appears that concerns over privacy have always existed in societies and are not new or unique to the Internet Age. Only the form and means of privacy and its protection have changed. Prior to the Internet Age, consumers' private information was often collected and analyzed for various marketing purposes such as direct marketing and telemarketing.

However, prior to the Internet Age, some natural protections of consumer privacy existed because business transactions were not electronic. For example, in cash transactions, no private consumer information needed to be disclosed; it was naturally protected and not accessible to violations. With the introduction and advancement of eCommerce, anonymity has faded away (Caudill & Murphy, 2000). In fact, Internet technology has facilitated the speed and scope of the collection, analysis, and exchange of private data. As a result, now more than ever, consumer privacy is receiving increased attention from the mass media, as well as from the government for increased privacy regulation (Roznowski, 2003).

The History of Privacy Acts

Many U.S. citizens insist that they have a right to privacy. However, the U.S. Constitution does not clearly grant such a right (Lanier & Saini, 2008). The U.S. Supreme Court has made interpretations of various amendments to the Constitution to grant the citizens the right to privacy. Examples of such interpretations are First Amendment rights to religious practice, free speech, and assembly, which have been interpreted by the Court as providing an individual with reasonable privacy and protection from surveillance without a warrant. Another example would be the Fifth Amendment protection against self-incrimination, which has been interpreted by the Court to protect

individuals against disclosure of private information in cases of compulsion and incrimination (Lanier & Saini, 2008). The first Privacy Act in the United States was passed by Congress, in 1974, to regulate government collection and use of personal information (Hann et al., 2007). In 1980, the collection and use of personal information guidelines by private organizations and government was published by the Organization for Economic Cooperation and Development. In 1995, the European Union (EU) approved a data protection directive, which disallowed transfer of information to countries within and without the EU that did not provide proper privacy protection (Hann et al., 2007).

Due to continued public concern and interest for increased regulation, the following laws were enacted specifically for online privacy: in 1998, the Children's Online Privacy Protection Act, which regulates the collection and use of private information about children under the age of 13, and in 2003, the California Online Privacy Act, specific to California residents, which regulate the private information of California residents (Hann et al., 2007). Currently, other legislation related to the disclosure requirements and security breaches of data is under consideration as consumers' concerns for privacy persist.

In 2001, reports surfaced about consumers' increasing concern over online privacy issues. Mozilo (2001), for example, reported the results of a survey, in which 92% of the respondents were concerned

about online privacy, and 72% were very concerned about their personal information online. Later, in 2002, Graeff and Harmon reported the results of their phone survey, which showed that about 75% of the participants were uncomfortable with giving out their credit card information over the Internet.

The privacy concerns of consumers are well-founded. These concerns are not limited merely to receiving junk mail. Consumers are concerned about identity theft and the sale of their private data to unknown organizations for target-marketing purposes. Some researchers, such as Rust, Kannan, and Peng (2002), have gone so far as to argue that the Internet will make privacy virtually disappear and that, over time, consumers might be forced to pay for a certain degree of privacy.

Review of Prior Research

Prior studies have shown that consumers' privacy concerns could be classified into various categories. Lanier and Saini (2008) classified these categories into three classes. The first class was conceptualizations of consumer privacy involving control of the marketing environment and the transactional information. The second class was consumer-related privacy issues such as awareness, information usage, information sensitivity, familiarity with the entity, and compensation. The third class

was firm-related privacy issues, which involved the extent to which firms were following the fair information practices (FIPs), the legal and business challenges the firms faced when dealing with consumer privacy, and the management and communication alternatives firms have in place to protect consumer privacy while pursuing financial success.

Other studies showed that consumer privacy categories could be the processes organizations use to collect and analyze the private data (Cary, Wen, & Mahatanankoon, 2003; Milne & Rohm, 2000). These processes could include Web browser cookies, website registration forms, or even a direct opt-in/opt-out option for the consumer. Opt-in/opt-out refers to the option where consumers have the choice of giving to or withholding from eCommerce marketers the permission to use their private information (Milne & Rohm, 2000). Other studies have shown that categories could also be set up for consumer characteristics and their ensuing relationships with marketers and eCommerce participation. Chellappa and Sin (2005), for example, studied consumer privacy concerns and personalization values and the relationship of these attributes with consumers' chances of using the personalized services. Chellappa and Sin referred to personalization values as the particular fit that a product or service provides to a consumer based on the consumer's individual characteristics.

Another study along the line of consumer-characteristics categorization was undertaken by Phelps et al. (2000), who examined the following four groups of consumer privacy factors: (a) types of personal information, (b) the amount of control that consumers were given over the use of information, (c) the potential consequences and benefits for consumers, and (d) the consumers' characteristics relative to overall privacy concerns. Culnan and Armstrong (1999) focused their study on procedures to protect the consumers' privacy and found that fair procedures built trust with consumers. Phelps, D'Souza, and Nowak (2001) found that consumers' main focus was control over the use of their private information.

Other studies emphasized consumers' attitudes toward gathering and use of private data and other marketing tactics. On this topic, Graeff and Harmon (2002) reported that consumers believed that it was easier for marketers to obtain their private information through the Internet. Das, Echambadi, McCardle, and Lockett (2003) examined the personality traits of consumers and their effects on browsing, shopping, and information-seeking behaviors. They concluded that consumers with low interpersonal trust had high security concerns. Gervy and Lin (2000) reported that consumers believed that ease of use and security were the two most important attributes or concerns regarding eCommerce. Ease of use referred to simplicity, speed, and convenience, whereas security

referred to privacy, trustworthiness, and transaction security. Bush, Bush, and Harris (1998) reported that the main barriers in eCommerce were security and privacy issues.

To summarize, the studies cited have documented the privacy concerns among consumers. Some studies attributed consumers' privacy concerns to the processes used by organizations to collect and analyze data; others focused on consumer characteristics as they relate to their privacy concerns and participation in eCommerce. Some studies focused on building trust with consumers to reduce their privacy concerns, whereas others emphasized the consumers' control over their private information as a way to reduce privacy concerns. All these studies acknowledged that consumers' privacy concerns are a reality. In order for eCommerce to grow and realize its potential as a contributor to the domestic and global economy, it is important for organizations to manage and reduce the privacy concerns of their customers. The purpose of the present study was to find the means by which eCommerce organizations might alleviate the privacy concerns of consumers and benefit both their customers and the company.

Managing Consumers' Privacy Concerns

Nam et al. (2006) identified two main elements thought to decrease consumers' privacy concerns: (a) increased trust in eCommerce and (b) the value eCommerce provides to consumers.

Trust in eCommerce

Trust has been identified as one of the main elements in eliminating the privacy concerns of consumers. Because eCommerce lends itself to approaching consumers by unfamiliar organizations, trust becomes an even greater issue than in traditional transactions. Liu, Marchewka, and Ku (2004) showed four dimensions of privacy that influenced consumer trust and, in turn, their eCommerce purchasing intentions: (a) notice (notifying consumers that information is being collected, prior to the data collection), (b) access (giving consumers access to the data collected about them), (c) choice (giving consumers the choice to allow use or sharing of their data), and (d) security (assuring consumers that their data is kept secure). Guglielmo (1999) argued that trustworthiness was directly related to consumers' experiences of eCommerce over time. The author further argued that trust, in time, becomes possible as a result of brand image, navigation, fulfillment on order processing, presentation, up-to-date technology, and logos or seal of approval from security-guaranteeing companies.

Value Provided by eCommerce

The value provided by eCommerce was another main element identified for the reduction of consumer privacy concerns. Some studies suggested that consumers might be willing to disclose their information voluntarily in exchange for a certain level of value (Nam et al., 2006). One of the actions eCommerce organizations could take to increase their value to consumers is to have privacy policies in place; they might also name, for example, the targets and persons to whom the consumer's private information might be disclosed and for what purpose (Hann et al., 2007). However, Fusilier and Hoyer (1980) argued that the best action eCommerce organizations could take to reduce consumers' perception of privacy invasion would be to ask consumers for permission to disclose their information. To this end, Spiekermann, Grossklags, and Berendt (2001) conducted a study and concluded that many consumers would willingly share their private information with a website for an added value. Although their study did not measure the sensitivity of the type of information the consumer might be willing to disclose, it did show that the perceptions of consumers' privacy were related to the value gained by the disclosure. These specific findings formed the basis for the present study.

Overall, eCommerce organizations can take actions to reduce the privacy concerns of their customers. Examples of such actions would be a promise to adhere to privacy policies on collection, analysis, and release of the customer's private information. This would lead to an increase of trust by customers. However, in addition to increasing trust, the most common method for eCommerce organizations to reduce the privacy concerns of their customers might be through offerings of incentives (Hann et al., 2007). Many eCommerce organizations have offered their customers' prizes such as participation in raffles or free shipping in exchange for the voluntarily disclosure of private information. Among other incentives offered by eCommerce organizations has been ease of customizing and personalizing a website in accordance with the customers' preferences, thus increasing the customers' convenience (Hann et al., 2007).

Consumers' Willingness to Disclose Information

Only a few studies have examined the relationship between financial incentives and consumers' willingness to disclose their private information. These studies, however, have shown contradictory results. For example, Hann et al. (2007) found that websites that offered financial benefits such as monetary rewards and future convenience significantly affected consumers' preferences for such websites. However, Ward et al.

(2005) found that financial incentives of price discounts and personalized services were not effective in increasing consumers' willingness to disclose their information.

To take a second look at these contradictions found in the literature, the present study examined more closely several aspects of the relationship between financial incentives and the consumers' willingness to disclose their private information. Specifically, this study focused on the sensitivity of various types of information sought from consumers and different levels of financial gain offered by eCommerce marketers. The types of information sought were categorized as personal, financial, and medical information.

Factors Affecting Consumers' Willingness to Disclose Private Information

Many factors seem to influence consumers' willingness to disclose their private information to eCommerce marketers. Based on the work of Phelps et al. (2000), Ward et al. (2005) created a conceptual schema of these factors. This schema is depicted in Figure 1 and utilized in this study. The input factors of this schema are discussed in the following sections.

Type of Information Requested

Certain types of information are more sensitive than others. Many studies have analyzed the hesitation of consumers' to release their private information. However, few have considered the relationship between this hesitation and the type of information requested. Hoffman, Novak, and Peralta (1999) and Phelps et al. (2000) discovered that consumers were unwilling to provide their personal information to marketers. Yet, Ward et al. (2005) discovered that the majority of the participants in their study (approximately 86%) were willing to provide their name and home address to the marketers.

Phelps et al. (2001) noted that consumers were particularly sensitive about disclosing their financial information. Hoffman et al. (1999) conducted a study on information privacy and found that 94% of the participants, at some point, had refused to provide their financial information to marketers. Hoffman et al. further found that of the participants who had provided marketers with their demographic data, 40% had, in fact, fabricated it. As a result of this discrepancy in the studies, it became important to take an in-depth look at consumers' privacy concerns and the type of information requested from them. For example, a consumer might be willing to disclose his or her e-mail address, but not his or her credit card number.

Benefits Offered in Exchange for Information

Phelps et al. (2000) suggested that the consumers' privacy concerns could be reduced if marketers offered certain benefits in exchange for information. Nowak and Phelps (1997) concluded that, in most cases, their participants disclosed their private information in exchange for financial benefits such as reduced prices, premiums, or incentives. Yet, another study by Hoffman et al. (1999) found that their participants were not willing to sell their private information to marketers for financial gain.

A study by Sayre and Horne (2000) concluded that in a supermarket club-card program, consumers were willing to release their personal information for financial incentives. Similar results were found by Thomas (1998). It is evident that there were mixed results in the studies conducted on consumers' willingness to release their private information to marketers in return for financial gains.

Individual Characteristics

Past studies looked at individual characteristics such as age (Milne & Rohm, 2000), gender (Milne & Rohm, 2000), education (Milne & Rohm, 2000; Phelps et al., 2000), past personal experience with privacy invasions (Culnan, 2000), and experience with Internet usage (Milne & Rohm, 2000; Phelps et al., 2000). These factors are important as

personal characteristics, and past experience will affect an individual's perception of conditions (Malhotra et al., 2004). Graeff and Harmon (2002) reported that younger customers tended to have a more positive view about the collection of private data than older customers did. Additionally, they reported male consumers showed fewer privacy concerns than women.

A possible link between the level of Internet usage and online purchasing and the consumers' privacy concerns was pointed out by Lynch and Beck (2001). These researchers concluded that users who accessed the Internet less frequently held less favorable attitudes toward the Internet. Conversely, frequent Internet users voiced fewer privacy concerns. Miyazaki and Fernandez (2001) concluded that frequent Internet users had less severe concerns about the privacy risks on the Internet. Yet, contradictory results relative to this individual characteristic—extent of Internet usage—were reported by Hoffman et al. (1999), who found that privacy concerns increased with the Internet user's online proficiency. Individual characteristics examined in the present study were age, gender, education, past personal experience with privacy invasion, and experience with Internet usage.

A rare study to examine the benefits of financial rewards and sensitivity factors of the data requested was undertaken by Ward et al., in 2005. The authors conducted their study in Australia and found that

the financial benefits of price discounts and personalized services were not effective in terms of gleaning consumers' personal information. The personal information sought would allow identification of a specific customer as, for example, his or her name, address, and phone number. These results contradicted others such as the findings of Hann et al. (2007). One noteworthy factor among these contradictory findings was the fact that the Ward et al. (2005) study was done in Australia, where many consumers were presumed to know that their basic personal information is publicly available in Australia's general registries; therefore, the consumers did not factor in the disclosure of their personal information as a value. Additionally, the participants in the Ward et al. study were young undergraduate college students, who had grown up with the Internet; for them, personal identification might not have presented the same issues and concerns as it seems to hold for older persons. Furthermore, Ward et al. conducted their study on the financial benefits of price discounts offered in conjunction with personalized services. Thus, the effect of price discounts alone was not actually studied.

The scenarios in the present study featured trustworthy organizations to assuage the trust factor in consumers. Furthermore, regardless of the consumers' willingness or unwillingness to disclose their personal information, the convenience of using many of the

organizations' online features were made available to the consumers. Therefore, the factors of trust, personalization, and convenience were consistently present in the scenarios of the present study. The factor under study was the value added through financial incentives for the voluntary disclosure of the consumer's private information. An additional focus of the study was the sensitivity of the information requested. No study has, heretofore, examined these factors in combination. Previous researches on the topic of privacy had focused on the consumers' concerns. This study is an extension of the work of prior studies in that its results provide eCommerce marketers with greater understanding of the means to manage or mitigate the privacy concerns of their customers by enticing them with financial incentives and having them disclose voluntarily private information of various levels of sensitivity.

Review of Research Methods

This study involved inquiring about participants' intentions and opinions, rather than observing their actual behavior. Previous similar studies used mainly a quantitative approach. Examples of such studies based on quantitative methods would be Chellappa and Sin (2005), Graeff and Harmon (2002), Phelps et al. (2001), Hann et al. (2007), and Ward et al. (2005). This quantitative study started with a framework depicted in Figure 1. On the basis of this framework, two research

questions guided the study. Through experimental designs the dependent variables were measured, while the independent variables were controlled. Samples were drawn from the target population, data from the samples were collected, and statistical analyses were conducted. Various quantitative methods are available to researchers. The present research utilized an electronic survey instrument to conduct the study via the Internet.

The Quantitative Survey and Differing Methodologies

A review of the academic and professional literature has shown that the survey method has consistently been used in prior research to gain a better understanding of consumer attitudes and privacy preferences. Examples of studies that used the survey method to explore consumer privacy are Chellappa and Sin (2005), Graeff and Harmon (2002), Phelps et al. (2001), Hann et al. (2007), and Ward et al. (2005).

There have been exceptions to the use of the quantitative survey method as well. One example would be Faja et al. (2006), who used a qualitative laboratory experiment method by setting up an experimental website to study consumers' privacy concerns. Another example of the use of a different method than the quantitative survey approach is the study by Malhotra et al. (2004), who conducted personal interviews with the participants regarding their online privacy concerns. Miyazaki (2008)

conducted three studies to research the interactive effects of the disclosure and practice of using cookies as a method of nonconsensual identification of consumers' online behavior. His first study examined cookie usage and disclosure on top websites, where he did not use a survey but rather went directly to the popular websites. His second study involved the trust effect of cookie disclosure versus undisclosed usage on an experimental website, which the participants evaluated. The nature of the website required a high degree of trust from the participants.

Miyazaki conducted a third study, in 2008, on the online experience and consumer detection of cookie placement, using a between-subjects experimental design on website usage during his second study. Overall, however, the use of methods other than the quantitative survey approach was rare for studies on consumer privacy concerns. By far, the survey method has been the method of choice not only in studies related to information systems (Palvia, En Mao, Salam, & Soliman, 2003; Palvia et al., 2004), but also in studies specifically related to consumer privacy behaviors, particularly ones inquiring about opinions and intentions.

For this study, a survey was designed to focus on the way consumers respond in situations where their private information is collected online. Additionally, this survey focused on the type of information solicited from consumers. The types of information sought ranged from less sensitive information such as an e-mail address to

much more sensitive information such as financial and medical records. Specific scenarios were given to the users that involved the offer of financial gains in order for them to disclose their private information willingly. The participants' general attitudes and demographics were also considered (Awad & Krishnan, 2006).

Previous studies found that respondents to electronic surveys tended to be people who exhibited greater comfort with technology and were, therefore, more willing to respond online (Basi, 1999; Ward et al., 2005). eSurvey responses could, thus, contain a sample bias towards participants who are more comfortable with sharing information online. However, the nature of this study was to explore transactional involvement in eCommerce over the Internet, which made an eSurvey the logical choice for data collection.

Summary

To summarize, the advancements of technology and the Internet have made eCommerce a major element in the domestic and global economy. Consumers' privacy concerns, however, have impaired the growth of eCommerce. The literature review has shown that organizations have always sought to glean their customers' private information; yet, because of the increasing use of the Internet, customer

data are now more easily collected and analyzed, as well as misused, than ever before.

Numerous studies have been conducted to gain a better understanding of the consumers' privacy concerns. Some studies focused on the processes organizations use to collect and analyze private data, whereas others focused on consumer characteristics and their attitudes toward eCommerce participation. Overall, all these studies have painted a clear picture of consumers' privacy concerns; they also came to the conclusion that managing these concerns would be the means for eCommerce to growth.

Establishing trust in eCommerce and providing added value through the use of eCommerce have been identified as some means to reduce the consumers' concerns. To this end, some researchers came to the conclusion that the best means of reducing consumers' perception of privacy invasion would be to ask them to disclose their information voluntarily. As a means of enticing consumers to do just that, some organizations have offered financial incentives. Studies on the relationship of financial incentives in exchange for the voluntarily disclosure of private information produced contradictory results. One reason for these contradictions was thought to be the different sensitivities that different types of information might hold for consumers.

However, the study of different types of information sought by eCommerce marketers was notably absent from the literature. It is to this gap in the literature that the present study has addressed itself by exploring the relationship between financial incentives offered and the consumers' willingness to disclose their private information, with specific attention paid to three types of potentially sensitive data: personal, financial, and medical. The review of the literature showed that the importance of this study resides in providing eCommerce organizations with the means to mitigate their customers' privacy concerns and, thereby, to contribute to the growth of eCommerce and the domestic, as well as the global, economy.

Chapter 3 explains the research methods used in this study, including research design; a description of the target population and referral sampling; a discussion of the eSurvey, its validation, and its reliability; and data collection and data analysis procedures.

CHAPTER 3: RESEARCH METHODS

Introduction

This chapter explains the research methods chosen for this quantitative study. First is a discussion of the research design and the reasons why the electronic survey method was the most appropriate approach. Next is a description of the target population, the sampling procedure through electronic referrals, and the desired sample size of at least 100 responses via the Internet. The eSurvey, its validation, and its reliability are discussed next, followed by a description of data collection and data analysis procedures.

Research Design

Newman and Benz (1998) presented a diagram that shows the overall approach to qualitative or quantitative research or a combination of the two (Figure 2). This quantitative study is based on a framework in which eCommerce organizations ask participants for personal, financial, or medical information in exchange for financial gains. The independent variables are various levels of financial incentives; the dependent variable is the consumers' willingness to disclose their private information.

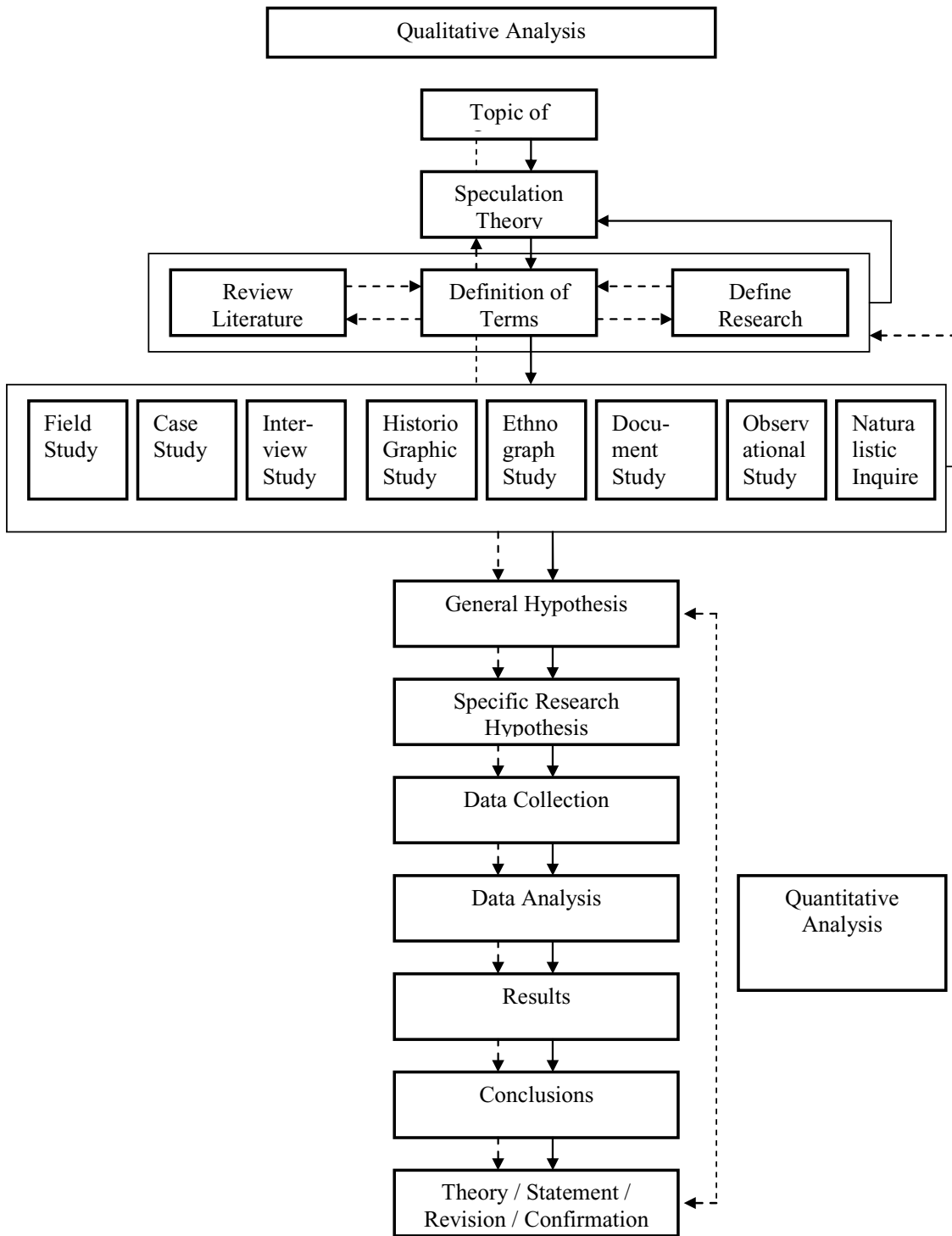


Figure 2. Approaches to quantitative and qualitative analysis.

Participants were selected through referral sampling, and their responses were measured. Data analysis was performed, and the findings were analyzed for results and conclusions. In this study, an electronic survey, or eSurvey, was used to capture the opinions and intentions of consumers. Because of the important role that the Internet plays in this study, an eSurvey was the instrument of choice

Target Population and Sampling Procedures

Population

This study aimed at understanding the behavior consumers intended to exercise in the eCommerce environment when they are offered financial incentives in exchange for some of their private information. Because the environment under study is eCommerce and consumers wishing to participate in eCommerce must use the Internet, the target population in this study is Internet users. For the purpose of this study, the Internet users are defined as persons who use the Internet at least 6 hours per week. Ward et al. (2005) defined Internet users similarly in their study of consumers and online privacy in Australia. Although many prior consumer privacy studies focused on Internet users who were purchasing online or who had recently made an online purchase, as for example the work of Chellappa and Sin (2005),

the present study did not follow this precedent. The reason why this model was abandoned in the present study was that a bias would have existed toward participants with low privacy concerns because online buyers had already made some disclosures of personal information over the Internet. Additionally, the privacy concerns of Internet users who had not yet made online purchases were of great importance because they were the main focus group whose privacy concerns were to be mitigated.

Sampling Procedure

One of the main features of a survey is to select a sample, or a subset of the population under study, that is representative of the population. The results obtained from the sample are then used to generalize about the entire population (Leedy & Ormrod, 2005). Studying the entire population of Internet users who spend at least 6 hours per week on the Internet is not feasible. There is simply no directory of all the Internet users, and their time and level of usage are not being tracked. Additionally, there are millions of Internet users in the United States alone, and surveying the intentions and opinions of all these users is not feasible. Therefore, a sample had to be selected that best represented the population for the purposes of this study.

The sampling of populations that are difficult to define or reach poses problems. The standard statistical sampling methods start with a

list of population members, often referred to as the sampling frame. From the sampling frame, samples are drawn. Because in this study the target population, or sampling frame, is Internet users and because there is no list or directory of all the Internet users available—nor is there any tabulation of the users' characteristics—it became difficult to define and identify the members of the Internet user population. Because the members of the population in this study were hard to identify, sampling them became complicated (Heckathorn, 2007). Thus, many standard probability sampling procedures, such as random sampling, proportional stratified sampling, cluster sampling, and systematic sampling, could not be used in this study. Therefore, nonprobability convenience sampling became the method of choice for this study.

An effective means of nonprobability sampling in similar cases has been referral sampling. Referral sampling begins with an initial set of respondents, called seeds. These seed respondents participate in the study and then refer their peers. These peers in turn refer their peers, and so on. The initial sample of participants expands and, through a simple social network, it becomes consistent with a broad coverage of the intended target population (Heckathorn, 2007). To summarize, because a directory or listing of Internet users is nonexistent and users are geographically widely dispersed, they are part of a network that is difficult to define or reach; referral convenience sampling became,

therefore, the obvious method of choice for this study (Heckathorn, 2007).

Previous consumer privacy studies such as the work of Hann et al. (2007) focused mainly on surveying undergraduate students about their privacy concerns. In the present study, the aim was to reach a wide range of age groups among consumers because any selected sample introduces bias in a study. Undergraduate university students are presumed to be younger and the first generation that has grown up with the Internet. As a result, they might not be as fully aware of the issues of personal identification over the World Wide Web as are older persons. Also, the sensitivity of financial and medical records might not be as keenly felt by young undergraduate participants because most of them probably have not yet established comprehensive financial or medical records. It is important to draw opinions from diverse age groups and educational backgrounds, particularly because the Internet user population is diversified across gender, age, and educational backgrounds.

Seeking participants for this study was approached in the following manner: The researcher asked approximately 30 individuals in her diverse e-mail lists to participate in an eSurvey. These participants were then asked to send the participation request to their own e-mail lists. Through such chains of referrals, sampling was achieved. The responses

will remain completely anonymous because there is no way to connect a particular response to a specific participant.

Sample Size

The formulas for determining sample size generally apply to probability sampling. Because a nonprobability method of sampling, namely, referral convenience sampling was used in this study, a formula was not applied to estimate sample size. Convenience sampling is often a practical means to reach the participants: It is, first of all, convenient; it also saves time, money, and effort (Creswell, 2007). However, it should be noted that the responses received through convenience sampling in this study are an approximate representation of the Internet community, not a precise random representation.

Previous studies such as the work of Watson, Nwoho, Kennedy, and Rea (2005) also used convenience sampling; here, approximately 100 responses were collected to study the willingness of respondents to pay for information programs about eCommerce. Only the responses of participants who used the Internet at least 6 hours per week were used; others were eliminated. Based on this example, it was assumed that more than 100 responses would have to be collected to yield the desired minimum of completed eSurveys meeting the 6-hours-per-week criterion. In fact, the present study received 115 responses of which 110 met the

stated criterion. These eSurveys ($N = 110$) were reviewed, and the spread of gender, age groups, educational background, and other demographic information was tabulated.

Instrumentation and Materials

The Relationship of Survey Questions to Research Questions

The survey instrument (Appendix A) was designed to answer the following two research questions. Table 1 relates the eSurvey questions to the research questions posed for the study:

1. To what extent, if any, are financial incentives related to consumers' willingness to disclose their private information to eCommerce marketers?
2. What is the relationship between financial incentives and the different types of sensitive information consumers would be willing to disclose to marketers (i.e., personal, financial, or medical)?

Table 1

Matrix Relating the eSurvey Questions to the Research Questions

eSurvey Questions	RQ 1	RQ 2
A. Personal information	X	X
B. Financial information	X	X
C. Medical information	X	X
1. Gender		X
2. Age		X
3. Education		X
4. Internet experience		X
5. Invasion of privacy in the past		X
6. Overall level of privacy concern to provide information online		X

Note. RQ = Research Question.

The survey, as shown in Appendix A, has not been used in any previous studies. Parts of this survey were brought together from other surveys and modified in order to obtain answers to the research questions posed for this study. The use of this survey and other details of the study were approved by the Internal Review Board (IRB) of Walden University, February 12, 2009. The approval number for this study is 02-11-09-0303938.

The framework used to answer the research questions (Figure 1) was originally designed by Ward et al. (2005); it is based on the work of Phelps et al. (2000). After an extensive literature review and input from other studies, this framework was modified for the purpose of the present study. Following is a review of the incorporation of this framework into the survey instrument to answer the research questions.

In order to answer whether and to what extent financial incentives are related to consumers' willingness to disclose their private information to eCommerce marketers, previous studies have shown that many factors needed to be considered. It should be pointed out that the relationship of some of these background factors (e.g., age and gender) and the consumers' willingness to disclose their private data are not the focus of this study. The focus of this study is rather the relationship between financial incentives and the consumers' willingness to disclose their private information to eCommerce marketers. The background factors were noted as characteristics of consumers who did or did not disclose their private information in exchange for financial gains offered to them.

Milne and Rohm (2000) had found that consumers over 50 years of age desired a higher level of privacy. In another study, Graeff and Harmon (2002) found that younger consumers were more positively disposed toward the collection of their private data than were older participants. Graeff and Harmon also found that male consumers

showed fewer privacy concerns than did female ones. Therefore, age and gender of the participants needed to be collected with the eSurveys.

Other individual characteristics shown in the literature to be of interest and worth studying as factors influencing the consumers' willingness to disclose private information were educational level and Internet experience. Phelps et al. (2000) concluded that participants who had attended a vocational school or had some college education were very concerned about the organization's use of their personal information. Lynch and Beck (2001) concluded that less frequent users of the Internet had less favorable attitudes toward the Internet, and more frequent users of the Internet had fewer privacy concerns. Therefore, questions about the participants' education and Internet experience needed to be included on the eSurvey. Malhotra et al. (2004) concluded that past invasion of privacy might have influenced some consumers' reactions to information privacy threats and ought to be included as a factor in consumer privacy studies. To summarize, individual characteristics such as consumers' gender, age, education, Internet experience, and invasion of privacy in the past were necessary and justifiable data to be gathered with the eSurvey in order to answer the research questions concerning consumers' willingness to release private information over the Internet.

Another important factor in consumers' willingness to disclose their private information to eCommerce marketers was the consumers' general sensitivity to and concern for privacy. Although distinct from such characteristics as age and gender, the consumers' general sensitivity and concern for information privacy had been included in a previous study by Ward et al. (2005). The researchers found that consumers' sensitivity and concern for privacy was negatively correlated with consumers' willingness to disclose private information online. Therefore, consumers' general sensitivity to and concerns for privacy was a reasonable and justifiable factor to question in this study.

Thus far, the research questions aimed at assessing the participants' characteristics, past experiences, and overall level of privacy concern. To answer the research questions concerning the relationship between financial incentives and the different types of information to which consumers were thought to respond with various levels of sensitivity, the participants were presented with three different scenarios. These scenarios involved the potential disclosure of (a) personal information, (b) financial information, and (c) medical information in exchange for financial gains. Although there appears to be no prior study that had examined these varied types of information disclosures, parts of prior studies could be used in the formulation of the three scenarios for the present study.

Culnan (2000) considered personal information as data that could personally identify an individual. Such data would typically be a person's name, mailing address, e-mail address, and various items of demographic information such as age, gender, education, preferences, and interests. In another study, performed by Bank of America and Direct Case Studies (2005), certain financial facts were needed from customers in order to provide new online financial services; requested were items about the customer's spending habits to create a full picture of personal finances and lifestyle products. Specifically, the financial information needed from the customers in this study was annual income, bank account number, credit card number, current amount of debt, and annual mortgage payments. Harris Interactive (2006) conducted a study on the benefits of electronic medical records and the privacy issues associated with them. Examined were data related to the patient's name, address, medical history records, laboratory records, prescription records, and insurance records. By reviewing these studies, it became evident that, to explore consumers' willingness to disclose different types of private information to eCommerce marketers, three different types of information would be good candidates for research: personal information, financial information, and medical information.

The design of the eSurvey for the present study kept ease of use of the Internet in mind and used the same survey format for all three

scenarios, with the sole focus on the relationship of financial incentives and the consumers' willingness to disclose information. The three companies featured in this study, Terrazon.com, Union Bank of America, and Green Cross, were all presented as trustworthy companies at the outset because the trust factor of participants was not an issue under study in this research. The survey focused rather on the different types of private data sought from the consumers. The survey consistently offered a \$100, a \$50, and a \$25 financial incentive in each of the three versions, or scenarios, in exchange for the disclosure of three different types of private information. By keeping constant the amount of financial benefits in each of the three scenarios, the results of the impact of financial offers on the consumers' willingness to disclose different types of private information could be compared.

The eSurvey used a Likert scale to measure the willingness of the participants to disclose their information. The two extreme anchors of the Likert scale were *highly willing* and *highly unwilling* and represented the range of the survey. The neutral option *not sure* was provided for those who were undecided or unsure whether they would disclose their private information if the given scenario presented itself. An alternative to the Likert scale is the continuous line or track bar. Some online surveys use the track bar, where continuous intervals are captured by the survey software. However, track bars were not suited for this study because the

cross-tabulation analysis that followed required specific value intervals, not continuous intervals.

Survey Validation

Validation of a survey is important because deficiencies in how the questions are asked and presented could lead to inaccurate response data, and later corrections can be costly. Validating a survey involves testing it so that it sensibly represents the intended purpose. A survey is valid if it is (a) accurate, (b) complete, (c) conflict-free, and (d) nonredundant (Shanks, Tansley, & Weber, 2003).

One of the means to validate a survey is through the utilization of expert opinion. To validate the survey in this study, three experts were chosen to review the survey: Dr. Korrapati, Dr. Hoehn, and Dr. Nirenberg. They were chosen as experts because of their decades of academic and scholarly teaching and research experience. Once all three experts were in agreement about the face validity of the eSurvey, the instrument was judged to be valid.

Survey Reliability

The main elements of reliability in a survey instrument are consistency and stability (Leedy & Ormrod, 2005). The survey instrument in this study was administered in a consistent manner to all participants

via eSurveys to assure its reliability. Additionally, 12 participants of varied gender, age, and educational background were asked to take the survey. Approximately 1 month later, they were asked to take the survey again. Ten of the participants took and retook the survey, after appropriate modification had been made. Once the results of the takes and retakes of the survey yielded the same or very similar responses, the survey instrument was judged to be stable and reliable. The Kuder-Richardson formula was used to measure the reliability coefficient between these surveys taken and retaken. The coefficient was calculated to be 0.97. A coefficient of 0.7 or higher is considered reliable; therefore, this eSurvey was determined to be highly reliable.

Data Collection

The survey for this study was electronic. Other privacy studies done with eSurveys, where the responses had to be submitted electronically, were conducted by Basi (1999) and Ward et al. (2005). These researchers found that the respondents of electronic surveys possessed a certain level of comfort with technology, online activities, and even disclosure of information over the Internet. Although this sample bias might be present with eSurveys, there is no reason to believe that a similar bias would not be present in the answers of a paper-based survey. It was, thus, concluded that, because of the nature of

eCommerce and the importance of using the Internet relative to the topic of this study, Internet users could best be reached with an eSurvey. The data for this study were, consequently, collected electronically.

SurveyMonkey.com was utilized to administer the eSurveys in this study. SurveyMonkey.com has a solid reputation for administering surveys through e-mail and websites. SurveyMonkey.com also has a history of working with university researchers for academic purposes. This company understands the need for precision and is also very flexible with the retrieval and subsequent downloading of data. An e-mail message informed the participants that a link had been set up by SurveyMonkey.com, where they could access the eSurvey and confidentially answer the questions.

Upon collection of all the needed data, SurveyMonkey.com had the flexibility to download the data in multiple formats for subsequent import into SPSS, which was used for data analysis. More information on SPSS as an analytical tool will be provided in a later section; an example of the eSurvey instrument is included in Appendix A. Because the purpose of the study was to gain a better understanding of the relationship between financial incentives and the consumers' willingness to disclose their private information, three different levels of monetary incentives were offered (hypothetically) in three different areas of potentially sensitive private data of a personal, financial, or medical nature.

Data Analysis

To answer both research questions guiding this study, the independence or dependence of various factors needed to be determined. In this study, the factors tested were whether the independent variables of various financial incentives had an association with the dependent variable, willingness of consumers to disclose their private data. The financial incentives in this study were broken down into a high incentive of \$100, a medium incentive of \$50, and low incentive of \$25. The willingness of consumers to disclose information was on a Likert scale with anchors from 1 = *highly willing* to 5 = *highly unwilling*. This simple setup shows that the data analysis to answer both research questions would involve cross-tabulation, as displayed in the matrix of Table 2.

Table 2

Financial Incentives and Willingness to Disclose Private Data

	Highly willing	Willing	Not sure	Unwilling	Highly unwilling
\$100					
\$50					
\$25					

Cross-tabulation was used in the analysis of this study because it shows how independent variables, in this case various financial incentives, are distributed across the categories of dependent variables, in this case the levels of willingness of consumers to disclose private information. The main test performed was to find out whether patterns of association existed between the variables in a cross-tabulation matrix (Aczel, 2006). Cross-tabulation analysis is also used to identify the likelihood that the patterns (if any) did not occur by chance (test of significance). The test of significance is referred to as Chi-square. Table 2 was used with different variables of the survey for each of the three scenarios of information disclosures: (a) Terrazon.com, (b) Union Bank of America, and (c) Green Cross. Performing cross-tabulation for the three different scenarios showed the association of financial incentives with consumers' willingness to disclose personal, financial, and medical information and some specifics of such information. For example, the cross-tabulation analysis for Terrazon.com was performed for the variables name, address, e-mail address, age, gender, education, product preferences, and selection preferences. From this cross-tabulation analysis could also be determined whether increasing financial incentives would correlate with increasing willingness of consumers to disclose information. To test for potential significance of the relationship between independent and dependent variables, the Chi-square test is the most

suitable statistical means. According to Aczel (2006), the Chi-square formula for the statistical test of independence is

$$T = \sum_{i=1}^r \sum_{j=1}^c \frac{O_{ij} - E_{ij}}{E_{ij}}, \text{ where}$$

r = the number of rows in the cross-tabulation table,

c = the number of columns in the contingency table,

O_{ij} = the observed frequency of the i th row and j th column,

E_{ij} = the expected frequency of the i th row and j th column = $\frac{R_i C_j}{N}$,

R_i = the sum of the observed frequencies for row i ,

C_j = the sum of the observed frequencies for row j , and

N = the total sample size.

The sample size is important in cross-tabulation analysis. Should the sample size be too small, the Chi-square value will be too small as well and, therefore, not represent a reasonable picture of the population. The formula to calculate the degrees of freedom of the Chi-square statistic is: $df = (r-1)(c-1)$

Many statistics textbooks and tools provide critical value tables for Chi-square. In this study, at a level of significance of 5%, the critical values were sought for the entire cross-tabulation. At 5% significance, there is a 95% probability that the data of the sample reflect the population accurately. The value of Chi-square for each cross-tabulation was compared to the critical value of Chi-square. If the Chi-square value meets or exceeds the critical value, the relationship between the independent and dependent variable is statistically significant. It should

be noted here that the individual characteristics of the participants and the overall level of privacy concern regarding the disclosure of information online will further be analyzed in the same manner in later sections.

Many statistical systems are available for analysis in survey studies. In this study, the SPSS system was used. What made the SPSS the system of choice were its main features: the simple switching between textual and graphic presentations of data with a click of the mouse, reordering and hiding of categories, specification of ranges, easy importation of various kinds of data (Fleenor, 1999), flexible output, and excellent handling of large data sets (Schwartz, 2001). The SPSS system was also used for Chi-square analysis.

Summary

The literature revealed not only that the relationship between financial incentives and consumers' willingness to disclose their private information is important to eCommerce and its growth, but also that no research attention had, heretofore, been focused on the different types of information collected by eCommerce marketers. Different types of private information such as personal, financial, or medical data hold different levels of sensitivity for consumers, and it would be worthwhile knowing if privacy concerns regarding such data could be mitigated by the offers of

various financial incentives. This quantitative study explored the intentions and opinions of Internet users who were presented with certain hypothetical scenarios where financial gains were offered by eCommerce organizations in exchange for the voluntarily disclosure of the participants' personal, financial, or medical data.

This chapter presented the reasons for choosing an eSurvey for data collection via the Internet, described the convenience sample ($N = 110$) and the referral method of sample selection, as well as validation and reliability testing of the survey instrument. The statistical measures used and the appropriateness of the SPSS software were described. After cross-tabulation and the use of the Chi-square statistic, the two research questions posed for the study can be answered in the next chapter. Chapter 4 will present the data analysis in greater detail, and, based on the findings, the research questions will be answered.

CHAPTER 4: DATA ANALYSIS

Introduction

Two research questions guided the study. The first question asked to what extent, if any, financial incentives were related to consumers' willingness to disclose their private information to eCommerce marketers. The second question examined what types of questions would meet with most versus least concerns for privacy: personal, financial, or medical. This chapter will describe the analysis of data collected via the Internet from a referral sample ($N = 110$) of Internet users of both genders and from a wide range of age groups and other demographic variables. First analyzed will be the demographic data of the participants, followed by the analysis of their answers regarding privacy concerns when confronted with questions about their personal, financial, or medical data under three hypothetical scenarios. Lastly, the two research questions will be answered.

Analysis of Demographic Data

A total of 115 individuals participated in the eSurvey. Of these, 5 individuals reported using the Internet less than 6 hours per week on average. They did not meet the criterion established for Internet users as defined in this study, and their eSurveys were eliminated. The remaining

participants comprised the sample ($N = 110$) for this study. A demographic breakdown of the sample is presented in Table 3.

The data showed a fairly even distribution of male (47%) and female (53%) participants. Considering the random nature of administering the varying levels of financial incentives, the distribution between the two genders remained balanced throughout the levels of \$100, \$50, and \$25 of incentives.

The age distribution was also approximately even between the 18-39-year age group and the 40-59-year age group (43% and 45%, respectively). The 60-year-and-older age group was only marginally represented with 13%. Although the percentage distribution among the age ranges varied with the random variation of the financial incentives (i.e., \$100, \$50, and \$25), the study had a strong overall representation of the two main age groups (18-39- and 40-59-year-olds), which are, in the main, the groups involved with eCommerce. The 60+ age group was expected to have less involvement with eCommerce, and their marginal representation among the respondents to the eSurvey was not overly surprising.

Table 3

Demographic Description of the Participants (N = 110)

Demographic	All Participants		Participants w/\$100 Offer		Participants w/\$50 Offer		Participants w/\$25 Offer	
	Count	%	Count	%	Count	%	Count	%
Gender								
Male	52	47%	15	41%	17	49%	20	53%
Female	58	53%	22	59%	18	51%	18	47%
Total	110	100%	37	100%	35	100%	38	100%
Age								
18-39	47	43%	11	30%	9	26%	27	71%
40-59	49	45%	24	65%	17	49%	8	21%
60 and Older	14	13%	2	5%	9	26%	3	8%
Total	110	100%	37	100%	35	100%	38	100%
Education								
High School Grad	3	3%	0	0%	1	3%	2	5%
2-4 Year College	44	40%	14	38%	8	23%	22	58%
Advance Degrees	63	57%	23	62%	26	74%	14	37%
Total	110	100%	37	100%	35	100%	38	100%
Internet Experience About 6 hours								
About 6 hours	20	18%	6	16%	2	6%	12	32%
More than 6 hours	90	82%	31	84%	33	94%	26	68%
Total	110	100%	37	100%	35	100%	38	100%
Invasion of Privacy								
None	67	61%	23	62%	23	66%	21	55%
Once	23	21%	7	19%	3	9%	13	34%
More than Once	20	18%	7	19%	9	26%	4	11%
Total	110	100%	37	100%	35	100%	38	100%
Sensitivity and Concern								
Not at all	0	0%	0	0%	0	0%	0	0%
Slightly Concerned	28	25%	13	35%	8	23%	7	18%
Moderately Concerned	40	36%	12	32%	11	31%	17	45%
Greatly Concerned	24	22%	7	19%	6	17%	11	29%
Total	110	100%	37	100%	35	100%	38	100%

Because respondents who used the Internet less than 6 hours per week had to be excluded from participation in the study, only those who were using the Internet at least 6 hours per week remained. Although the great majority of the participants (82%) reported using the Internet in excess of 6 hours per week, all 110 remaining participants were considered Internet users, as defined for the purposes of this study, and no distinction was made based on the number of hours they perused the Internet.

The majority of the participants in this study had not experienced invasion of privacy in the past. With more than 60% of the participants never having had their information privacy invaded—or at least never having had knowledge of such an act of invasion—it should be kept in mind that, perhaps, they were less guarded, less protective of their private data, and more open to enticement through offers of financial gains than if they had experienced such invasions in the past. It was interesting to note, however, that all participants expressed some concern about releasing private information online: 61% were *concerned* or *slightly concerned*, whereas 38% were *moderately concerned* or *greatly concerned*. This is of great importance to eCommerce marketers in their attempts to ease the privacy concerns of eCommerce customers.

Findings

Table 4 is a summary of how the questions on the eSurvey, the responses gathered, and the statistical tests performed on the responses were able to answer the research questions posed for the study.

Research Question 1

The first research question asked to what extent, if any, financial incentives are related to consumers' willingness to disclose their private information to eCommerce marketers. This question was answered based on the overall data received. Initially, no differentiation was made among consumers based on gender, age, educational background, and other demographic features. Additionally, because this researcher sought to discover the relationship between various variables and financial incentives, regression analysis, correlation analysis, and the ANOVA were not appropriate statistical tests to perform.

Table 4

Data and Statistical Test Used for Each Research Question

eSurvey questions	Research Question 1	Research Question 2	Statistical Tests
A. Personal information	X	X	Cross-Tabulation, Chi-Square
B. Financial information	X	X	Cross-Tabulation, Chi-Square
C. Medical information	X	X	Cross-Tabulation, Chi-Square
1. Gender		X	Cross-Tabulation, Chi-Square
2. Age		X	Cross-Tabulation, Chi-Square
3. Education		X	Cross-Tabulation, Chi-Square
4. Internet experience		X	Cross-Tabulation, Chi-Square
5. Invasion of privacy in the past		X	Cross-Tabulation, Chi-Square
6. Overall level of privacy concern relative to providing information online		X	Cross-Tabulation, Chi-Square

Chi-square analysis was used to determine the relationship or association between various variables and financial incentives to answer the research questions. Chi-square measures the statistical significance of a relationship between two variables. It does not measure the strength of association or relationship between two variables; that is what correlation analysis would do. Correlation analysis measures whether there is a linear relationship between two variables (one independent X and one dependent Y). Examples of such relationships would be: the greater the independent variable X, the greater the dependent variable Y,

or inversely: the greater the independent variable X, the smaller the dependent variable Y. Thus, it is possible for Chi-square to show that the relationship between two variables is statistically significant without the two variables having a linear relationship with each other, meaning that one variable does not increase or decrease as the other one increases or decreases. To perform Chi-square calculations, tables referred to as cross-tabulations were constructed.

All eSurvey questions were, one by one, paired with varying levels of financial incentives. For example, the first question on the survey instrument asked about the participants' willingness to disclose their personal information such as name in exchange for a certain amount of financial gain, or an incentive of \$100, \$50, or \$25. To determine whether the relationship between the various financial incentives and the participants' willingness to disclose their name had statistical significance, a cross-tabulation was created and Chi-square was calculated. Table 5 shows the cross-tabulation for the name variable.

Table 5

Cross-Tabulation for the Name Variable

Personal Information Disclosure: Name						
Monetary Incentive	HW	W	NS	UW	HUW	Marginal Total
\$100	9	15	4	7	2	37
\$50	4	22	3	2	4	35
\$25	8	16	5	6	3	38
Marginal Total	21	53	12	15	9	110

Note. HW = *highly willing to disclose*. W = *willing to disclose*. NS = *not sure*. UW = *unwilling to disclose*. HUW = *highly unwilling to disclose*.

Chi-square for this cross-tabulation was calculated with the use of the SPSS statistical software. Based on 8 degrees of freedom and a 5-column Likert scale (1 = *highly willing*, 2 = *willing*, 3 = *not sure*, 4 = *unwilling*, and 5 = *highly unwilling*), the Chi-square value was 7.64. At the $p = .05$ level of significance, the Chi-square value had to be at least 15.51 to be statistically significant. It was, therefore, concluded that financial incentives did not have a statistically significant relationship or association with consumers' willingness to disclose their name as part of their personal information.

To answer Research Question 1 completely, Chi-square was calculated for each variable of personal, financial, and medical information (Questions 1, 2, and 3 on the eSurvey). A summary of these variables and their corresponding Chi-square calculations is shown in Table 6.

Table 6

Chi-Square Analysis of the Private Information Variable

		Analysis of 1-5 columns	Significance $p = .05$
		Chi-square	15.51
Personal Information	Name	7.64	Not
	Address	7.02	Not
	e-mail address	4.37	Not
	Age	13.42	Not
	Gender	22.85	Significant
	Education	10.47	Not
	Product preferences	6.19	Not
	Selection preferences	7.25	Not
Financial Information	Name	12.47	Not
	Address	10.22	Not
	Annual Income	3.49	Not
	Bank account no.	8.73	Not
	Credit card no.	11.11	Not
	Current debts	10.90	Not
	Annual mortgage payment	9.93	Not
Medical Information	Name	14.85	Not
	Address	14.75	Not
	Medical history records	7.36	Not
	Laboratory records	6.86	Not
	Prescription records	9.21	Not
	Insurance records	6.39	Not
	Social Security number	13.44	Not

Note. $df = 8$.

A review of the Chi-square calculations and analyses revealed that no significant association or relationship existed between financial incentives and the consumers' willingness to disclose their private information to eCommerce marketers, except for gender (Table 7). Disclosing one's gender was the only variable with a significant relationship to financial incentives offered. Therefore, further analysis of the gender variable and willingness to disclose information along gender lines needed to be performed for Research Question 2.

Table 7

Percentage Analysis of the Private Information Variable

	Chi-square	Sig	HW	% HW	W	% W	% HW and W	NS	% NS	UW	% UW	HUW	% HUW	Total
A Name	7.64	Not	21	19%	53	48%	67%	12	11%	15	14%	9	8%	110
A Address eMail	7.02	Not	16	15%	43	39%	54%	13	12%	22	20%	16	15%	110
A Address	4.37	Not	19	17%	51	46%	64%	15	14%	14	13%	11	10%	110
A Age	13.42	Not	26	24%	50	45%	69%	9	8%	15	14%	10	9%	110
A Gender	22.85	Sig	28	25%	60	55%	80%	3	3%	12	11%	7	6%	110
A Education Product	10.47	Not	27	25%	62	56%	81%	7	6%	7	6%	7	6%	110
A Preferences Selection	6.19	Not	35	32%	54	49%	81%	7	6%	6	5%	8	7%	110
A Preferences	7.25	Not	34	31%	55	50%	81%	8	7%	6	5%	7	6%	110
B Name	12.47	Not	26	24%	55	50%	74%	9	8%	11	10%	9	8%	110
B Address Annual	10.22	Not	22	20%	50	45%	65%	13	12%	13	12%	12	11%	110
B Income Bank	3.49	Not	8	7%	27	25%	32%	24	22%	30	27%	21	19%	110
B Account# Credit	8.73	Not	4	4%	34	31%	35%	17	15%	28	25%	27	25%	110
B Card# Current Debt	11.11	Not	5	5%	22	20%	25%	19	17%	31	28%	33	30%	110
B Amount Annual Mortgage	10.90	Not	5	5%	25	23%	27%	25	23%	27	25%	28	25%	110
B Payment	9.93	Not	5	5%	30	27%	32%	27	25%	23	21%	25	23%	110
C Name	14.85	Not	24	22%	58	53%	75%	8	7%	10	9%	10	9%	110
C Address Medical History	14.75	Not	21	19%	53	48%	67%	15	14%	10	9%	11	10%	110
C Records Laboratory	7.36	Not	5	5%	38	35%	39%	26	24%	20	18%	21	19%	110
C Records Prescription	6.86	Not	5	5%	43	39%	44%	22	20%	19	17%	21	19%	110
C Records Insurance	9.21	Not	5	5%	43	39%	44%	20	18%	21	19%	21	19%	110
C Records Social Security#	6.39	Not	4	4%	40	36%	40%	26	24%	21	19%	19	17%	110
C Security#	13.44	Not	2	2%	14	13%	15%	19	17%	33	30%	42	38%	110

Note. A = Personal information. B = Financial information. C = Medical information. $p = .05$. $df = 8$. HW = highly willing to disclose. W = willing to disclose. NS = not sure. UW = unwilling to disclose. HUW = highly unwilling to disclose.

Research Question 2

The second research question asked what the relationship is between financial incentives and the different types of information consumers would be least or most sensitive (i.e., hesitant) to disclose to eCommerce marketers: personal, financial, or medical. This question was answered by analyzing the responses to eSurvey Questions 1, 2, and 3 for various categories of financial incentives: \$100, \$50, and \$25 in detail and cross-tabulating the demographic variables asked in Questions 4 through 9 of the survey instrument. Lastly Chi-square was calculated for this cross-tabulation.

For example, the first question, and the first variable on the survey was about the disclosure of consumers' names as part of their personal information. For the variable name on a 5-column Likert scale (with the anchors 1 = *highly willing*, 2 = *willing*, 3 = *not sure*, 4 = *unwilling*, 5 = *highly unwilling*) a cross-tabulation included all the demographic features, with gender being the first. Table 8 is an example of the initial two cross-tabulations (for males and females) for the variable name.

Table 8

Cross-Tabulation for the Name Variable by Gender

Personal Information Disclosure: Name – Male						
	HW	W	NS	U	HU	Marginal Total
\$100 Incentive	4	7	1	3	0	15
\$50 Incentive	1	14	1	0	1	17
\$25 Incentive	3	9	4	2	2	20
Marginal Total	8	30	6	5	3	52

Personal Information Disclosure: Name – Female						
	HW	W	NS	U	HU	Marginal Total
\$100 Incentive	5	8	3	4	2	22
\$50 Incentive	3	8	2	2	3	18
\$25 Incentive	5	7	1	4	1	18
Marginal Total	13	23	6	10	6	58

Note. HW = *highly willing to disclose*. W = *willing to disclose*. NS = *not sure*. UW = *unwilling to disclose*. HUW = *highly unwilling to disclose*.

The Chi-square value for males on the name variable (as part of personal information) was 11.7, for females 3.1. With $df = 8$ and $p = .05$, neither Chi-square was statistically significant. The same calculation was performed for other variables and for all other demographic features. The results of these cross-tabulations and Chi-square calculations are listed in Appendix B.

All together, through cross-tabulations, 396 Chi-squares were calculated. These 396 ways of looking at the data and the relationships and associations between various levels of financial incentives and private information disclosures showed that no statistically significant

relationships or associations existed between financial incentives and the participants' willingness to disclose their private data.

As a general category however, gender had significance; each variable was, therefore, examined with respect to gender. A deeper analysis showed that men and women responded differently to financial incentives and that men did, in fact, consider money an incentive to disclose their personal information. The Chi-square for personal information/male gender was 19.59. At a significance level of $p = .05$ and $df = 8$, this Chi-square was significant, which means that financial incentives are significantly related to men's willingness to disclose their personal information.

Another interesting finding occurred in the 40-59-year age group. In this age category, and again with respect to the gender variable, financial rewards appeared to be a definite enticement for disclosing some personal information. The 40-59-year age group is critically important to eCommerce, which should make this finding of great interest to eCommerce marketers.

In fact, the willingness to disclose some personal information in exchange for a financial incentive became consistently significant with respect to gender in the 40-59-year age group. Further examples of significant results were personal information disclosure among advanced-degree holders with a Chi-square of 24.14 and personal

information disclosure among Internet users of more than 6 hours per week with a Chi-square of 15.65 and for the gender variable with a Chi-square of 26.5. Additionally significant with respect to gender was personal information disclosure among those with no prior past invasion of privacy with a Chi-square of 16.28 and among those with a one-time prior invasion of privacy with a Chi-square of 16.75, all at $p = .05$ and $df = 8$.

Relative to the second research question, it was found that there is a willingness to disclose some personal information in exchange for financial incentives with respect to two variables: gender and 40-59-year age group. Table 9 shows the willingness for personal information disclosure with respect to the gender variable. The items of personal information consumers were willing to disclose to eCommerce marketers for money were education, product preferences, selection preferences, age, name, e-mail address, and street address.

Table 9

Personal Information Disclosure by Gender

	Gender	Personal Information	Chi-Square	Significant	Highly Willing	Willing	% Willing or Highly Willing
Gender	Male	Education	3.349	Not	11	35	42%
Gender	Female	Product Preferences	5.412	Not	23	23	42%
Gender	Female	Gender	8.552	Not	18	27	41%
Gender	Female	Selection Preferences	5.197	Not	23	22	41%
Gender	Male	Selection Preferences	9.851	Not	11	33	40%
Gender	Male	Gender	19.588	Significant	10	33	39%
Gender	Female	Education	10.742	Not	16	27	39%
Gender	Male	Product Preferences	10.33	Not	12	31	39%
Gender	Female	Age	10.521	Not	16	24	36%
Gender	Male	Name	11.734	Not	8	30	35%
Gender	Female	Name	3.094	Not	13	23	33%
Gender	Male	Age	15.372	Not	10	26	33%
Gender	Male	eMail Address	7.871	Not	7	28	32%
Gender	Female	eMail Address	2.652	Not	12	23	32%
Gender	Male	Address	14.008	Not	7	24	28%
Gender	Female	Address	3.422	Not	9	19	25%

Summary

To summarize, after the researcher looked at the data in 396 different ways, the researcher found no significant relationship or association between financial incentives and the consumers' willingness to disclose their private data in the areas of personal, financial, and medical information. However, a subtle significance appears to exist along gender lines. Men and women seem to respond differently to financial incentives in exchange for their private information. It appears

that men are, in fact, amenable to being influenced by money and, thus, open to financial incentives in exchange for their personal information.

Another finding was that the 40-59-year age group seemed amenable to being influenced by financial gains for disclosure of some of their personal information. The 40-59-year age group is an important part of eCommerce. These findings are, therefore, of interest to eCommerce marketers relative to the gender and age of their customers. A more detailed discussion and interpretation of the findings will be presented in the next chapter.

Chapter 5 will give a brief summary of the study, followed by conclusion based on the findings of this research. Both the limits of the study and its implications for social change will be discussed, and recommendations will be offered for further research.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

eCommerce has become a major element in the domestic and global economy, largely because of the advancements in technology and the Internet. The growth of eCommerce is an important element in the growth of the economy and, hence, a positive factor for society. However, consumers' privacy concerns have presented a serious limitation to the growth of eCommerce. A thorough review of the literature revealed that managing consumers' privacy concerns might be a means to boost the growth of eCommerce. Additionally, the literature review revealed that one of the best ways to reduce the consumers' perception of privacy invasion might be to induce them to disclose their information voluntarily. However, there appeared to be a gap in the literature regarding the relationships of financial incentives and the consumers' willingness to disclose their private data, particularly with respect to the potentially sensitive nature of three types of data: personal, financial, and medical. To contribute toward closing this gap was the focus of this research.

The purpose of this study was to examine whether financial incentives would help consumers and eCommerce marketers in a mutually beneficial manner by contributing to better utilization of

eCommerce and assure its growth. The growth in eCommerce is not only a vital factor in the growth of the domestic economy, but also in the growth of the global economy. To achieve the goals of this study, two research questions were posed:

1. To what extent, if any, are financial incentives related to consumers' willingness to disclose their private information to eCommerce marketers?

2. What is the relationship between financial incentives and the different types of sensitive information consumers would be willing to disclose to marketers (i.e., personal, financial, or medical)?

The answers to these questions were thought to help eCommerce marketers, perhaps, to find the means to mitigate consumers' privacy concern. The mitigation of consumers' privacy concerns would be one way to boost the growth of eCommerce and, in turn, the growth of the economy. Growth and improvements in the economy are benefiting society by bringing positive changes to the lives of many individuals and to the country as a whole.

This study was performed by asking the target population of Internet users (defined as those who use the Internet at least 6 hours per week) what their intentions and opinions were about releasing three types of private data (personal, financial, or medical), when being offered various levels of financial incentives. The intentions and opinions held by

participants were best suited for a quantitative survey study. Because of the important role played by the Internet in a study involving eCommerce, the best way to reach Internet users was thought to be through an eSurvey and referral sampling. Thus, the research was undertaken through a referral eSurvey with 115 potential participants. The responses of 5 of these potential participants had to be excluded from the study because they did not meet the criterion for participation, which was the definition of Internet users as those who peruse the Internet for a minimum of 6 hours per week. Data from the remaining 110 respondents were analyzed through cross-tabulation and Chi-square calculations. The SPSS statistical software was used for that purpose.

Upon analysis of the data, it was concluded that financial incentives, by and large, do not have a statistically significant relationship or association with consumers' willingness to disclose their private information. Furthermore, no significant relationships seemed to exist between financial incentives and the different types of potentially sensitive information, which consumers might be hesitant to disclose. Exceptions to this finding were men and consumers in the 40-59-year age bracket, who appeared amenable to being influenced by financial gains in exchange for the release of private information.

Conclusions

For a brief review of the findings, Table 10 is a summary of the analyses presented in chapter 4. A total of 396 cross-tabulations and Chi-square calculation were performed to explore the relationship, if any, between financial incentives and Internet users' willingness to disclose their private information to eCommerce marketers. It was concluded that consumers are reluctant to disclose private information to eCommerce marketers even with when offered financial incentives. The analysis indicated, however, subtle findings with respect to the two variables gender and 40-59-year-olds. These respondents seemed amenable to being influenced by monetary gains in exchange for the disclosure of private information.

With respect to the gender variable, men showed a greater willingness to disclose some personal information in exchange for money than did women. To explore the reasons behind this finding could be the topic of future research. Some factors to consider might be possible differences in the level of trust or vulnerability between men and women or whether men, on the whole, are more open to the influences of incentives.

Table 10

List of Variables with Significant Chi-Squares

Type of Information	Variable With Significant Chi-Squares
Personal	Gender
Personal	Male – Gender
Medical	Female – Name
Personal	Age: 40-59 – Gender
Medical	Age: 40-59 – Social Security #
Personal	Education: Advance Degree – Gender
Financial	Education: 2-4-Year College – Bank Account No.
Personal	Internet Experience: More than 6 hours – Age
Personal	Internet Experience: More than 6 hours – Gender
Medical	Internet Experience: More than 6 hours – Address
Personal	Past Invasion: None – Gender
Personal	Past Invasion: Once – Gender
Financial	General Concern: Concerned – Current Debt Amount
Financial	General Concern: Concerned – Annual Mortgage Payment

With respect to the variable age groups, 40-59-year-olds showed a willingness to disclose some personal information to eCommerce marketer in exchange for financial incentives. The reasoning behind the willingness of this age group versus the other age groups could be the topic of future research. Some factors to consider would be the different levels of comfort different age groups might have with using the Internet. The younger age group (i.e., 18-39-year-olds), generally, has grown up with the Internet. This age group feels comfortable within the Internet

environment. The 60+ age group has been less involved with the Internet in general and has mostly preferred the mortar-and-brick methods of conducting business rather than eCommerce. The 40-59-year age group, however, has experienced everyday life with and without the Internet. This group has reasons both for being suspicious of the Internet and for using it and taking advantage of its benefits. Members of this cohort seem concerned about using the Internet, and yet, they are also sensitive to its benefits and prone to be swayed by offers of additional benefits regarding its use. Herein might be found some explanations for the differing responses by age cohort.

Answering the Research Questions

After reviewing the data presented in chapter 4 and analyzing the findings, the answer to the first research questions is that consumers are, by and large, not willing to disclose their private information to eCommerce marketers even when presented with financial incentives. Some exceptions were found with respect to gender.

The answer to the second research question is that consumers are not willing to disclose different types of potentially sensitive private information (personal, financial, or medical) to eCommerce marketers in exchange for financial gains, with two exceptions: Men and Internet users in 40-59-year age group showed willingness to disclose some

personal information in exchange for financial gain. Figure 3 relates these findings to the conceptual framework presented in chapter 2.

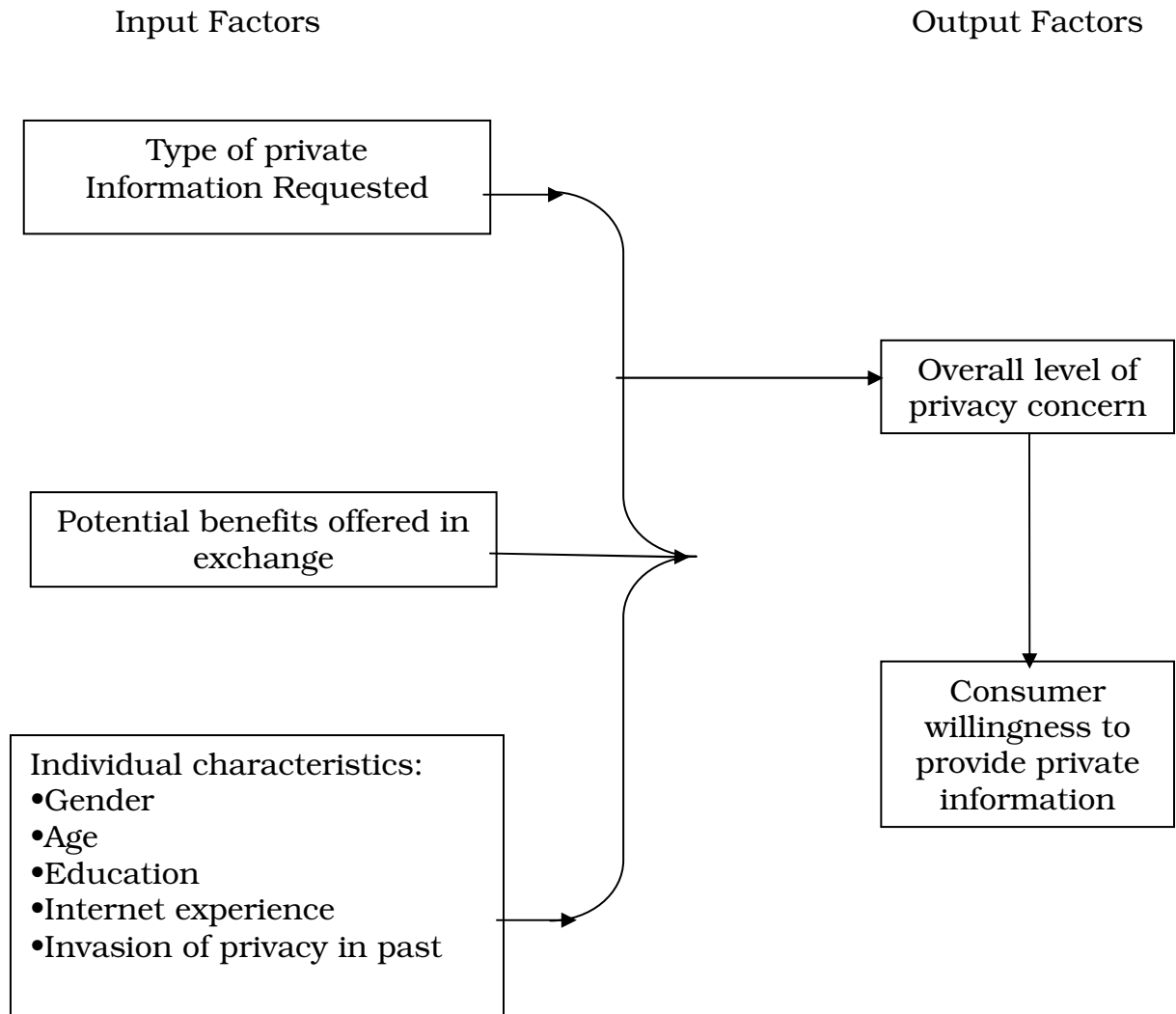


Figure 3. Relating the findings to the conceptual framework for influencing consumers' willingness to provide private information.

The data gathered from a referral sample ($N = 110$) by means of an eSurvey (Appendix A) represent the input factors. These data were processed to find the relationships between input and output factors. Specifically, the different types of private data—personal, financial, and medical—were examined in relation to the financial incentives offered and with respect to individual characteristics; individual concern and sensitivity for privacy; and, ultimately, in relation to the consumers' willingness to provide eCommerce marketers with their private information. Relative to the first input factor—varying types of personal, financial, and medical information—consumers showed that they were unwilling to disclose their information in exchange for a financial benefit. The second input factor—financial benefit—was measured at varying levels (\$25, \$50, and \$100) to clearly determine its impact, if any. Neither the high, medium, or low level had a significant relationship with the consumers' willingness to disclose their private data. Individual characteristics as input factor—for example, male gender or 40-59-year age group—were helpful to the understanding that certain individual characteristics were, in fact, sensitive to benefits offered by eCommerce marketers and led to willingness to release some less sensitive personal information in exchange for financial incentives. The input factors gender and age did have a significant relationship or association with the consumers' willingness to disclose their personal information. It was a

note of interest that, for the input factor concern, all respondents answered in the affirmative, that is, to one degree or another they all reported some level of sensitivity and concern about their privacy.

Limitations of the Study

The limitations of the study need to be reviewed at this point so that the subsequent interpretation of the findings and the conclusion drawn based upon those findings can proceed with these limitations in mind:

1. The survey conducted in this study measured the intention of the participants, not their actual behavior. For example, participants reported how they would behave if they were offered a \$25 financial incentive on their purchase in exchange for their private information. The participants did not report the behavior of an actual event. Although the measurement of intention is commonly accepted as a measure of actual behavior, measuring the actual behavior of participants under test conditions would strengthen the validity of this study (Dinev & Hart, 2006).

2. The eCommerce marketers requesting the private information (personal, financial, and medical) in this study were not well-known companies. In order to alleviate the impact of lack of trust, it was mentioned in the study that each company in question was a

trustworthy company. Care should be taken not to apply the results of this study to less well-known and, presumably, even less trusted marketers requesting information. Previous research has shown that trust could influence participants' responses.

3. Lack of information about the quality of the marketers' privacy policy was also a limitation in this study. Participants were informed that the marketer requesting the information did have a privacy policy in place; however, the quality of said policy was not explained in detail. Different levels of quality in the marketers' privacy policy might affect the participants' willingness to disclose their information in exchange for a financial incentive.

4. This study was conducted during an economic downturn. Some participants might have been willing to share private information with eCommerce marketers simply because they were short on money. The results of this study might have been different if it had been conducted in a different economic climate.

Implications and Recommendations for Action

The implication for social change of this study is that eCommerce marketers need to find means to mitigate the concerns of consumers so that eCommerce can grow and, in turn, grow the economy. Financial incentives, however, might not be the only or even the best means of

mitigating these concerns. eCommerce marketers need to be aware that consumers are generally not willing to disclose their private information for financial incentives. Therefore, relative to Research Questions 1 and 2, the growth of eCommerce should not focus on financial incentives as the only or the best means to achieve growth. Although two vital groups of eCommerce users—men and consumers belonging to the age bracket of 40-59-year-olds—showed sensitivity to financial incentives, eCommerce marketer should, probably, also focus on building trust with their customers in order to gain their responsiveness and attention. This topic could be the focus of future research.

Mitigating the consumers' concerns will benefit eCommerce marketers and, by extension, the whole of society. The Internet, eCommerce, and the economy are important parts in everyone's life. Consumers need to speak out and ask for what they want to see offered by eCommerce if they are to do more business on the Internet. This could very well include factors such as better control over the use of their personal information or greater trust in the safeguards provided by vendors and national legislations. eCommerce marketers, on the other hand, should thoroughly understand their customers' and their needs. These needs might vary based on gender, age group, and other characteristics. eCommerce marketers should make every attempt to

meet the needs of consumers because the growth of eCommerce will lead to growth of the economy, which, ultimately, will benefit all of society.

Recommendations for Further Study

The current study focused specifically on consumers' willingness to disclose their private information to eCommerce marketers in exchange for financial incentives. This could be considered a beginning point for many other studies to provide a more comprehensive understanding of consumers' concerns relative to Internet information privacy. One avenue for future research could be the study of consumers' actual behavior for disclosure of their private information in exchange for financial incentives. This study researched the participants' intended behavior rather than their actual behavior.

Also absent in this study was the consumers' control over their information, once disclosed to eCommerce marketers. They were not given any level of control after the disclosure of their information. A future study might focus on consumers' willingness to disclose their information if they are given the opportunity to retain certain levels of control after disclosure. Examples of such controls would be time limits of, perhaps, 1 year on the use of the disclosed data, after which the eCommerce marketers would no longer be able to use the information, or limitations on other entities to whom the information can be handed

over, that is, to whom the original marketers may sell or release the information obtained.

Future research might also focus on the trust factor among consumers. This study showed that men were more willing to disclose some personal information in exchange for money than women. One might examine whether men are more trusting of eCommerce than women or whether other factor might account for these findings.

Future studies on this topic might also focus on the cultural background of consumers and its effects on willingness to disclose private information. Because eCommerce and the Internet are not confined by geographical boundaries, the participants in this study could have come from varied cultural backgrounds. A future study might focus on consumers of one culture versus those of another, and compare their willingness to disclose private information. Cultural values might play an important role on consumers' willingness to disclose private information to eCommerce marketers.

Concluding Remarks

The take-home message of this study is that consumers are not easily enticed through financial incentives to surrender their private information to eCommerce marketers. Although one gender and certain age groups appeared to be more open to financial incentives or more

willing to disclose some personal information, the respondents were, by and large, very guarded vis-à-vis eCommerce marketers and hesitant to release sensitive private data when (hypothetically) offered financial incentives under various scenarios. eCommerce marketers will, first, need to understand and, then, endeavor to meet the needs of their customers in order to grow their businesses. The growth of eCommerce will contribute to the growth of the economy and, thereby, benefit society as a whole.

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APPENDIX A: THE SURVEY

There will be three versions of this survey administered. Version 1 offers \$25, Version 2 offers \$50, and Version 3 offers \$100, in hypothetical scenarios, to the participants for the disclosure of their private information.

1) Personal Information

Consider the following scenario:

Terrazon.com is a reputable online bookstore and has Internet privacy policies in place.

You are a Terrazon.com customer.

The main advantages of using Terrazon.com are:

1. Ease of selection where within seconds you can locate your desired books.
2. Convenience of making your purchase 24/7, from home or office.

Terrazon.com is interested in knowing more about your preferences so they can offer a better product selection. So they need to ask you some personal questions.

In order to entice you and thank you for disclosing your information Terrazon.com will offer you **\$100.00** credit toward current or future shipping fees.

How willing are you to disclose the following personal information to Terrazon.com over the Internet?

	Highly Willing	Willing	Not Sure	Unwilling	Highly unwill
Name	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Address	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eMail Address	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Age	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gender	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product Preferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selection Preferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2) Financial Information

Consider the following scenario:

Union Bank of America is a reputable bank across the United States and has Internet privacy policies in place.

You are a Union Bank of America customer.

Union Bank of America would prefer for you to do on-line banking as it is able to save greatly on in-bank customer service.

The advantages for you to use online banking are:

1. You are able to do banking 24/7 from a convenient location.
2. You are able to make payments, transfer funds, check balances, and order checks, and apply for loans.
3. You are notified via email each time a credit check is run on your account; so that you will be able to stop fraudulent inquiries immediately.
4. You receive analysis of the various categories of your spending and a comparison of these spending against the national average.

In order to entice you and thank you for doing on-line banking, Union Bank of America is offering you free check printing (\$50.00 value), and two waivers of overdraft charges (\$50.00 value), totaling **\$100.00**. However, you need to disclose certain information through the web.

How willing are you to disclose this financial information to Union Bank of America over the Internet?

	Highly Willing	Willing	Not Sure	Unwilling	Highly Unwilling
Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annual Income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bank Account #	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Credit Card #	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current Debt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annual Mortgage Payment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3) Medical Information

Consider the following scenario:

Green Cross is a reputable insurance company, well known and trusted by many persons. Green Cross has Internet privacy policies in place.

You are a Green Cross subscriber.

Green cross would like to have a consolidated medical record of all of its patients to decrease its healthcare costs by eliminating many medical errors, unnecessary tests, and improving the quality of care in general.

The advantages of the consolidated medical for you are:

1. Scheduling appointments online
2. Receiving test results of diagnostic tests via email
3. Communicating with your doctor by email.
4. Lower Insurance costs as a result reduction in unnecessary expenses.

In order for Green Cross to achieve its goals, it needs you to disclose your medical record over the Internet. In order to entice you to participate in this program they are offering you a **\$100.00** wavier in your deductibles should you be willing to participate.

How willing are you to disclose this medical information to Green Cross over the Internet?

	Highly Willing	Willing	Not Sure	Unwilling	Not at all Willing
Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical History Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laboratory Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prescription Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insurance Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social Security Number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4) Gender Male

Female

5) Age

- Less than 20
- 20-39
- 30-59
- 60 and Older

6) Education

- High School Grad
- 2-4 Year College
- Advanced Degrees

7) Internet Experience

- None
- Less than 6 hours per week
- About 6 hours per week
- More than 6 hours per week

8) Invasion of Privacy in the past

- None Once More than Once

9) General sensitivity and concern to provide information online

- Not at all Concerned
- Slightly Concerned
- Concerned
- Moderately Concerned
- Greatly Concerned

This survey is being conducted as part of a research on the relationship of financial incentives and consumers' willingness to disclose information to eCommerce marketers.

The participation in this survey is strictly voluntarily and anonymous. There will be no means of knowing who did or did not participate, and which responses belong to which participant.

By submitting this survey you indicate your consent to participate in this research.

APPENDIX B: SUMMARY OF RESULTS

Research Question 1

		df=8 five columns Chi- square	Sig=5% df=8 15.51
Personal Information	Name	7.64	Not
	Address	7.02	Not
	eMail Address	4.37	Not
	Age	13.42	Not
	Gender	22.85	Significa nt
	Education	10.47	Not
	Product Preferences	6.19	Not
	Selection Preferences	7.25	Not
Financial Information	Name	12.47	Not
	Address	10.22	Not
	Annual Income	3.49	Not
	Bank Account#	8.73	Not
	Credit Card#	11.11	Not
	Current Debt Amount	10.90	Not
	Annual Mortgage Payment	9.93	Not
	Medical Information	Name	14.85
Address		14.75	Not
Medical History Records		7.36	Not
Laboratory Records		6.86	Not
Prescription Records		9.21	Not
Insurance Records		6.39	Not
Social Security#		13.44	Not

Research Question 2

Personal Information - Gender					
Personal Information - Gender	Male	Name	11.73	Not	
	Female	Name	3.09	Not	
	Male	Address	14.01	Not	
	Female	Address	3.42	Not	
	Male	eMail Address	7.87	Not	
	Female	eMail Address	2.65	Not	
	Male	Age	15.37	Not	
	Female	Age	10.52	Not	
	Male	Gender	19.59	Significant	
	Female	Gender	8.55	Not	
	Male	Education	3.35	Not	
	Female	Education	10.74	Not	
	Male	Product Preferences	10.33	Not	
	Female	Product Preferences	5.41	Not	
	Male	Selection Preferences	9.85	Not	
	Female	Selection Preferences	5.20	Not	
	Financial Information - Gender				
	Financial Information - Gender	Male	Name	8.87	Not
Female		Name	10.68	Not	
Male		Address	5.59	Not	
Female		Address	9.07	Not	
Male		Annual Income	3.67	Not	
Female		Annual Income	7.17	Not	
Male		Bank Account#	8.55	Not	
Female		Bank Account#	11.48	Not	
Male		Credit Card#	5.36	Not	
Female		Credit Card#	12.50	Not	
Male		Current Debt Amount	7.45	Not	
Female		Current Debt Amount	15.12	Not	
Male		Annual Mortgage Payment	6.79	Not	
Female		Annual Mortgage Payment	14.29	Not	

(table continues)

Medical Information - Gender				
Male	Name	6.95	Not Significant	
Female	Name	16.14	Not Significant	
Male	Address	8.69	Not Significant	
Female	Address	12.80	Not Significant	
Male	Medical History Records	8.40	Not Significant	
Female	Medical History Records	8.25	Not Significant	
Male	Laboratory Records	7.61	Not Significant	
Female	Laboratory Records	5.53	Not Significant	
Male	Prescription Records	7.98	Not Significant	
Female	Prescription Records	7.47	Not Significant	
Male	Insurance Records	5.27	Not Significant	
Female	Insurance Records	5.86	Not Significant	
Male	Social Security#	9.65	Not Significant	
Female	Social Security#	8.47	Not Significant	
Personal Information - Age				
Age: 18-39	Name	10.00	Not Significant	
Age: 40-59	Name	7.87	Not Significant	
Age: 60 and Older	Name	7.50	Not Significant	
Age: 18-39	Address	6.96	Not Significant	
Age: 40-59	Address	6.19	Not Significant	
Age: 60 and Older	Address	11.31	Not Significant	
Age: 18-39	eMail Address	10.07	Not Significant	
Age: 40-59	eMail Address	2.88	Not Significant	
Age: 60 and Older	eMail Address	8.99	Not Significant	
Age: 18-39	Age	8.47	Not Significant	
Age: 40-59	Age	15.32	Not Significant	
Age: 60 and Older	Age	6.94	Not Significant	
Age: 18-39	Gender	7.27	Not Significant	
Age: 40-59	Gender	21.69	Not Significant	
Age: 60 and Older	Gender	6.94	Not Significant	
Age: 18-39	Education	10.67	Not Significant	
Age: 40-59	Education	11.24	Not Significant	
Age: 60 and Older	Education	7.50	Not Significant	
Age: 18-39	Product Preferences	5.52	Not Significant	

(table continues)

	Age: 40-59	Product Preferences	7.36	Not	
	Age: 60 and Older	Product Preferences	6.94	Not	
	Age: 18-39	Selection Preferences	4.85	Not	
	Age: 40-59	Selection Preferences	6.67	Not	
	Age: 60 and Older	Selection Preferences	6.94	Not	
Financial Information - Age	Age: 18-39	Name	10.11	Not	
	Age: 40-59	Name	5.19	Not	
	Age: 60 and Older	Name	8.17	Not	
	Age: 18-39	Address	5.48	Not	
	Age: 40-59	Address	6.21	Not	
	Age: 60 and Older	Address	11.63	Not	
	Age: 18-39	Annual Income	4.64	Not	
	Age: 40-59	Annual Income	8.09	Not	
	Age: 60 and Older	Annual Income	3.31	Not	
	Age: 18-39	Bank Account#	5.85	Not	
	Age: 40-59	Bank Account#	3.82	Not	
	Age: 60 and Older	Bank Account#	5.72	Not	
	Age: 18-39	Credit Card#	6.44	Not	
	Age: 40-59	Credit Card#	6.62	Not	
	Age: 60 and Older	Credit Card#	4.67	Not	
	Age: 18-39	Current Debt Amount	3.66	Not	
	Age: 40-59	Current Debt Amount	5.45	Not	
	Age: 60 and Older	Current Debt Amount	3.63	Not	
		Age: 18-39	Annual Mortgage Payment	5.40	Not
		Age: 40-59	Annual Mortgage Payment	5.53	Not
	Age: 60 and Older	Annual Mortgage Payment	3.56	Not	
Medical Information - Age	Age: 18-39	Name	5.41	Not	
	Age: 40-59	Name	11.87	Not	
	Age: 60 and Older	Name	3.89	Not	
	Age: 18-39	Address	9.42	Not	
	Age: 40-59	Address	9.68	Not	
	Age: 60 and Older	Address	7.13	Not	
	Age: 18-39	Medical History Records	8.70	Not	
	Age: 40-59	Medical History Records	3.72	Not	

(table continues)

		Medical History		
	Age: 60 and Older	Records	4.59	Not
	Age: 18-39	Laboratory Records	6.55	Not
	Age: 40-59	Laboratory Records	5.28	Not
	Age: 60 and Older	Laboratory Records	8.04	Not
	Age: 18-39	Prescription Records	6.11	Not
	Age: 40-59	Prescription Records	6.03	Not
	Age: 60 and Older	Prescription Records	7.44	Not
	Age: 18-39	Insurance Records	7.47	Not
	Age: 40-59	Insurance Records	4.54	Not
	Age: 60 and Older	Insurance Records	8.24	Not
	Age: 18-39	Social Security#	6.20	Not
				Significa
	Age: 40-59	Social Security#	23.61	nt
	Age: 60 and Older	Social Security#	5.70	Not
Personal				
Information -				
Education	Education: High School			
	Grad	Name	3.00	Not
	Education: 2-4 Year			
	College	Name	2.47	Not
	Education: Advance			
	Degrees	Name	10.59	Not
	Education: High School			
	Grad	Address	3.00	Not
	Education: 2-4 Year			
	College	Address	4.45	Not
	Education: Advance			
	Degrees	Address	5.64	Not
	Education: High School			
	Grad	eMail Address	3.00	Not
	Education: 2-4 Year			
	College	eMail Address	2.25	Not
	Education: Advance			
	Degrees	eMail Address	7.79	Not
	Education: High School			
	Grad	Age	3.00	Not
	Education: 2-4 Year			
	College	Age	5.76	Not
	Education: Advance			
	Degrees	Age	14.28	Not

(table continues)

Financial Information - Education	Education: High School Grad	Gender	3.00	Not
	Education: 2-4 Year College	Gender	3.58	Not
	Education: Advance Degrees	Gender	24.14	Significa nt
	Education: High School Grad	Education	0.75	Not
	Education: 2-4 Year College	Education	3.71	Not
	Education: Advance Degrees	Education	12.49	Not
	Education: High School Grad	Product Preferences	0.75	Not
	Education: 2-4 Year College	Product Preferences	5.34	Not
	Education: Advance Degrees	Product Preferences	11.10	Not
	Education: High School Grad	Selection Preferences	0.75	Not
	Education: 2-4 Year College	Selection Preferences	4.39	Not
	Education: Advance Degrees	Selection Preferences	13.36	Not
	Education: High School Grad	Name	0.75	Not
	Education: 2-4 Year College	Name	8.75	Not
	Education: Advance Degrees	Name	10.69	Not
	Education: High School Grad	Address	3.00	Not
	Education: 2-4 Year College	Address	9.06	Not
	Education: Advance Degrees	Address	4.99	Not
	Education: High School Grad	Annual Income	3.00	Not
	Education: 2-4 Year College	Annual Income	3.30	Not
	Education: Advance Degrees	Annual Income	3.02	Not

(table continues)

Medical Information - Education	Education: High School Grad	Bank Account#	3.00	Not Significa nt
	Education: 2-4 Year College	Bank Account#	15.52	
	Education: Advance Degrees	Bank Account#	9.72	Not
	Education: High School Grad	Credit Card#	3.00	Not
	Education: 2-4 Year College	Credit Card#	11.75	Not
	Education: Advance Degrees	Credit Card#	5.89	Not
	Education: High School Grad	Current Debt Amount	3.00	Not
	Education: 2-4 Year College	Current Debt Amount	11.79	Not
	Education: Advance Degrees	Current Debt Amount	6.45	Not
	Education: High School Grad	Annual Mortgage Payment	3.00	Not
	Education: 2-4 Year College	Annual Mortgage Payment	9.80	Not
	Education: Advance Degrees	Annual Mortgage Payment	5.50	Not
	Education: High School Grad	Name	0.75	Not
	Education: 2-4 Year College	Name	10.27	Not
	Education: Advance Degrees	Name	9.76	Not
	Education: High School Grad	Address	3.00	Not
	Education: 2-4 Year College	Address	11.00	Not
	Education: Advance Degrees	Address	7.62	Not
	Education: High School Grad	Medical History Records	3.00	Not
	Education: 2-4 Year College	Medical History Records	12.57	Not
	Education: Advance Degrees	Medical History Records	3.59	Not

(table continues)

Personal Information - Internet Experience	Education: High School Grad	Laboratory Records	3.00	Not
	Education: 2-4 Year College	Laboratory Records	10.06	Not
	Education: Advance Degrees	Laboratory Records	3.16	Not
	Education: High School Grad	Prescription Records	3.00	Not
	Education: 2-4 Year College	Prescription Records	12.02	Not
	Education: Advance Degrees	Prescription Records	3.17	Not
	Education: High School Grad	Insurance Records	3.00	Not
	Education: 2-4 Year College	Insurance Records	5.23	Not
	Education: Advance Degrees	Insurance Records	3.58	Not
	Education: High School Grad	Social Security#	0.00	Not
	Education: 2-4 Year College	Social Security#	12.56	Not
	Education: Advance Degrees	Social Security#	6.03	Not
	Internet Experience: About 6 hours per week	Name	5.67	Not
	Internet Experience: More than 6 hours per week	Name	9.05	Not
	Internet Experience: About 6 hours per week	Address	6.68	Not
	Internet Experience: More than 6 hours per week	Address	9.77	Not
	Internet Experience: About 6 hours per week	eMail Address	6.67	Not
	Internet Experience: More than 6 hours per week	eMail Address	6.16	Not
	Internet Experience: About 6 hours per week	Age	3.75	Not

(table continues)

Financial Information - Internet Experience	Internet Experience: More than 6 hours per week	Age	15.65	Significa nt
	Internet Experience: About 6 hours per week	Gender	3.39	Not
	Internet Experience: More than 6 hours per week	Gender	26.51	Significa nt
	Internet Experience: About 6 hours per week	Education	12.00	Not
	Internet Experience: More than 6 hours per week	Education	14.72	Not
	Internet Experience: About 6 hours per week	Product Preferences	4.39	Not
	Internet Experience: More than 6 hours per week	Product Preferences	7.87	Not
	Internet Experience: About 6 hours per week	Selection Preferences	2.73	Not
	Internet Experience: More than 6 hours per week	Selection Preferences	8.84	Not
	Internet Experience: About 6 hours per week	Name	9.32	Not
	Internet Experience: More than 6 hours per week	Name	10.35	Not
	Internet Experience: About 6 hours per week	Address	6.67	Not
	Internet Experience: More than 6 hours per week	Address	12.63	Not
	Internet Experience: About 6 hours per week	Annual Income	10.17	Not

(table continues)

Medical Information - Internet Experience	Internet Experience: More than 6 hours per week	Annual Income	4.80	Not
	Internet Experience: About 6 hours per week	Bank Account#	5.20	Not
	Internet Experience: More than 6 hours per week	Bank Account#	7.06	Not
	Internet Experience: About 6 hours per week	Credit Card#	5.77	Not
	Internet Experience: More than 6 hours per week	Credit Card#	9.02	Not
	Internet Experience: About 6 hours per week	Current Debt Amount	9.14	Not
	Internet Experience: More than 6 hours per week	Current Debt Amount	8.54	Not
	Internet Experience: About 6 hours per week	Annual Mortgage Payment	10.44	Not
	Internet Experience: More than 6 hours per week	Annual Mortgage Payment	7.42	Not
	Internet Experience: About 6 hours per week	Name	11.44	Not
	Internet Experience: More than 6 hours per week	Name	13.74	Not
	Internet Experience: About 6 hours per week	Address	11.67	Not
	Internet Experience: More than 6 hours per week	Address	16.01	Significa nt
	Internet Experience: About 6 hours per week	Medical History Records	8.13	Not
	Internet Experience: More than 6 hours per week	Medical History Records	8.94	Not
	Internet Experience: About 6 hours per week	Laboratory Records	6.39	Not

(table continues)

Personal Information - Past Invasion	Internet Experience: More than 6 hours per week	Laboratory Records	10.26	Not
	Internet Experience: About 6 hours per week	Prescription Records	6.67	Not
	Internet Experience: More than 6 hours per week	Prescription Records	13.20	Not
	Internet Experience: About 6 hours per week	Insurance Records	6.60	Not
	Internet Experience: More than 6 hours per week	Insurance Records	7.77	Not
	Internet Experience: About 6 hours per week	Social Security#	6.77	Not
	Internet Experience: More than 6 hours per week	Social Security#	11.63	Not
	Past Invasion: None	Name	6.16	Not
	Past Invasion: Once	Name	4.45	Not
	Past Invasion: More than Once	Name	11.73	Not
	Past Invasion: None	Address	9.30	Not
	Past Invasion: Once	Address	9.37	Not
	Past Invasion: More than Once	Address	8.12	Not
	Past Invasion: None	eMail Address	8.18	Not
	Past Invasion: Once	eMail Address	3.99	Not
	Past Invasion: More than Once	eMail Address	6.37	Not
	Past Invasion: None	Age	11.55	Not
	Past Invasion: Once	Age	12.37	Not
	Past Invasion: More than Once	Age	8.13	Not Significa nt
	Past Invasion: None	Gender	16.28	Significa nt
Past Invasion: Once	Gender	16.75	nt	
Past Invasion: More than Once	Gender	3.90	Not	
Past Invasion: None	Education	15.46	Not	

(table continues)

Financial Informatio n - Past Invasion	Past Invasion: Once	Education	12.57	Not
	Past Invasion: More than Once	Education	7.88	Not
	Past Invasion: None	Product Preferences	4.26	Not
	Past Invasion: Once	Product Preferences	4.45	Not
	Past Invasion: More than Once	Product Preferences	4.57	Not
	Past Invasion: None	Selection Preferences	5.56	Not
	Past Invasion: Once	Selection Preferences	4.45	Not
	Past Invasion: More than Once	Selection Preferences	7.18	Not
	Past Invasion: None	Name	8.06	Not
	Past Invasion: Once	Name	7.49	Not
	Past Invasion: More than Once	Name	6.70	Not
	Past Invasion: None	Address	7.54	Not
	Past Invasion: Once	Address	6.45	Not
	Past Invasion: More than Once	Address	6.70	Not
	Past Invasion: None	Annual Income	7.86	Not
	Past Invasion: Once	Annual Income	12.18	Not
	Past Invasion: More than Once	Annual Income	5.25	Not
	Past Invasion: None	Bank Account#	9.25	Not
	Past Invasion: Once	Bank Account#	10.17	Not
	Past Invasion: More than Once	Bank Account#	8.58	Not
	Past Invasion: None	Credit Card#	7.15	Not
	Past Invasion: Once	Credit Card#	7.13	Not
	Past Invasion: More than Once	Credit Card#	7.88	Not
	Past Invasion: None	Current Debt Amount	11.77	Not
	Past Invasion: Once	Current Debt Amount	7.67	Not
	Past Invasion: More than Once	Current Debt Amount	9.70	Not
	Past Invasion: None	Annual Mortgage Payment	11.15	Not
	Past Invasion: Once	Annual Mortgage Payment	9.12	Not
	Past Invasion: More than Once	Annual Mortgage Payment	5.71	Not

(table continues)

Medical Informatio n - Past Invasion	Past Invasion: None	Name	7.01	Not	
	Past Invasion: Once	Name	6.89	Not	
	Past Invasion: More than Once	Name	9.03	Not	
	Past Invasion: None	Address	8.08	Not	
	Past Invasion: Once	Address	7.11	Not	
	Past Invasion: More than Once	Address	12.84	Not	
	Past Invasion: None	Medical History Records	6.05	Not	
	Past Invasion: Once	Medical History Records	6.24	Not	
	Past Invasion: More than Once	Medical History Records	10.94	Not	
	Past Invasion: None	Laboratory Records	4.80	Not	
	Past Invasion: Once	Laboratory Records	4.85	Not	
	Past Invasion: More than Once	Laboratory Records	7.96	Not	
	Past Invasion: None	Prescription Records	5.99	Not	
	Past Invasion: Once	Prescription Records	6.55	Not	
	Past Invasion: More than Once	Prescription Records	7.96	Not	
	Past Invasion: None	Insurance Records	3.92	Not	
	Past Invasion: Once	Insurance Records	4.69	Not	
	Past Invasion: More than Once	Insurance Records	6.81	Not	
	Past Invasion: None	Social Security#	4.94	Not	
	Past Invasion: Once	Social Security#	7.63	Not	
	Past Invasion: More than Once	Social Security#	11.56	Not	
	Personal Informatio n - General Concern	General Concern: Slightly Concerned	Name	8.22	Not
		General Concern: Moderately Concerned	Name	6.96	Not
General Concern: Concerned		Name	4.15	Not	
General Concern: Greatly Concerned		Name	13.73	Not	

(table continues)

General Concern: Slightly Concerned	Address	8.70	Not
General Concern: Moderately Concerned	Address	13.18	Not
General Concern: Concerned	Address	7.15	Not
General Concern: Greatly Concerned	Address	7.66	Not
General Concern: Slightly Concerned	eMail Address	4.21	Not
General Concern: Moderately Concerned	eMail Address	5.36	Not
General Concern: Concerned	eMail Address	11.78	Not
General Concern: Greatly Concerned	eMail Address	2.76	Not
General Concern: Slightly Concerned	Age	6.28	Not
General Concern: Moderately Concerned	Age	5.65	Not
General Concern: Concerned	Age	7.70	Not
General Concern: Greatly Concerned	Age	4.79	Not
General Concern: Slightly Concerned	Gender	4.21	Not
General Concern: Moderately Concerned	Gender	5.55	Not
General Concern: Concerned	Gender	8.45	Not
General Concern: Greatly Concerned	Gender	13.62	Not
General Concern: Slightly Concerned	Education	4.43	Not
General Concern: Moderately Concerned	Education	8.44	Not
General Concern: Concerned	Education	12.02	Not
General Concern: Greatly Concerned	Education	5.40	Not
General Concern: Slightly Concerned	Product Preferences	3.79	Not
General Concern: Moderately Concerned	Product Preferences	5.57	Not
General Concern: Concerned	Product Preferences	10.12	Not

(table continues)

Financial Information - General Concern	General Concern: Greatly Concerned	Product Preferences	5.94	Not
	General Concern: Slightly Concerned	Selection Preferences	3.79	Not
	General Concern: Moderately Concerned	Selection Preferences	6.56	Not
	General Concern: Concerned	Selection Preferences	10.29	Not
	General Concern: Greatly Concerned	Selection Preferences	5.02	Not
	General Concern: Slightly Concerned	Name	8.03	Not
	General Concern: Moderately Concerned	Name	9.16	Not
	General Concern: Concerned	Name	10.94	Not
	General Concern: Greatly Concerned	Name	8.34	Not
	General Concern: Slightly Concerned	Address	6.92	Not
	General Concern: Moderately Concerned	Address	8.05	Not
	General Concern: Concerned	Address	9.77	Not
	General Concern: Greatly Concerned	Address	7.74	Not
	General Concern: Slightly Concerned	Annual Income	5.09	Not
	General Concern: Moderately Concerned	Annual Income	14.83	Not
	General Concern: Concerned	Annual Income	10.63	Not
	General Concern: Greatly Concerned	Annual Income	8.60	Not
	General Concern: Slightly Concerned	Bank Account#	8.07	Not
	General Concern: Moderately Concerned	Bank Account#	3.81	Not
	General Concern: Concerned	Bank Account#	6.70	Not
General Concern: Greatly Concerned	Bank Account#	10.74	Not	

(table continues)

	General Concern: Slightly Concerned	Credit Card#	5.54	Not
	General Concern: Moderately Concerned	Credit Card#	9.57	Not
	General Concern: Concerned	Credit Card#	12.83	Not
	General Concern: Greatly Concerned	Credit Card#	8.31	Not
	General Concern: Slightly Concerned	Current Debt Amount	3.57	Not
	General Concern: Moderately Concerned	Current Debt Amount	8.17	Not
	General Concern: Concerned	Current Debt Amount	17.13	Significa nt
	General Concern: Greatly Concerned	Current Debt Amount	13.06	Not
	General Concern: Slightly Concerned	Annual Mortgage Payment	7.89	Not
	General Concern: Moderately Concerned	Annual Mortgage Payment	9.87	Not
	General Concern: Concerned	Annual Mortgage Payment	16.01	Significa nt
	General Concern: Greatly Concerned	Annual Mortgage Payment	4.64	Not
Medical Informatio n - General Concern	General Concern: Slightly Concerned	Name	2.64	Not
	General Concern: Moderately Concerned	Name	8.40	Not
	General Concern: Concerned	Name	5.99	Not
	General Concern: Greatly Concerned	Name	9.90	Not
	General Concern: Slightly Concerned	Address	4.54	Not
	General Concern: Moderately Concerned	Address	7.36	Not
	General Concern: Concerned	Address	10.49	Not
	General Concern: Greatly Concerned	Address	9.90	Not
	General Concern: Slightly Concerned	Medical History Records	10.67	Not

(table continues)

General Concern: Moderately Concerned	Medical History Records	7.96	Not
General Concern: Concerned	Medical History Records	9.20	Not
General Concern: Greatly Concerned	Medical History Records	6.66	Not
General Concern: Slightly Concerned	Laboratory Records	10.14	Not
General Concern: Moderately Concerned	Laboratory Records	10.35	Not
General Concern: Concerned	Laboratory Records	7.50	Not
General Concern: Greatly Concerned	Laboratory Records	6.66	Not
General Concern: Slightly Concerned	Prescription Records	15.05	Not
General Concern: Moderately Concerned	Prescription Records	10.35	Not
General Concern: Concerned	Prescription Records	7.93	Not
General Concern: Greatly Concerned	Prescription Records	6.66	Not
General Concern: Slightly Concerned	Insurance Records	8.54	Not
General Concern: Moderately Concerned	Insurance Records	10.46	Not
General Concern: Concerned	Insurance Records	7.71	Not
General Concern: Greatly Concerned	Insurance Records	8.06	Not
General Concern: Slightly Concerned	Social Security#	3.61	Not
General Concern: Moderately Concerned	Social Security#	10.41	Not
General Concern: Concerned	Social Security#	5.61	Not
General Concern: Greatly Concerned	Social Security#	10.20	Not

CURRICULUM VITAE

PARISSA POURHOSSEINI, Ph.D.

EMPLOYMENT OBJECTIVE

Meet the information needs of organizations through defining information flow, analyzing, designing, developing, and implementing financial systems.

EDUCATION

Doctor of Philosophy: Information Systems Management
Walden University, Minneapolis, MN – 2009

Master's of Business Administration
California State University, Northridge - 1993

Bachelor of Science: Management Information Systems
California State University, Northridge – 1989

WORK EXPERIENCE

Ph.D. STUDIES - WALDEN UNIVERSITY - Minneapolis, MN (2004 – present)

Applied Management and Decision Sciences, Information Systems Management:

- Course Work Studies in Information Systems Management
- Dissertation: The Relationship of Financial Incentives and Consumers' willingness to Disclose Information to e-Commerce Marketers
- Research: Implications of Information Systems Research Methodologies and Techniques
- Research: The Impact of Information Technology on Decision Making in Organizations
- Research: Employing the Logic of Opposition to Explain the Organizational Consequences of Information Technology

ASSISTANT VICE PRESIDENT - UNION BANK OF CALIFORNIA -Los Angeles, CA (1997-2003)

DATABASE ADMINISTRATOR (1997-2003):

- Lead information technologist in administering ORACLE Financial System.
- Managed loading, import and export of data into the system.
- Developed scripts in SQL / SQL+, and Visual Basic to automate data retrieval.
- Designed and implemented system, database and user security.
- Integrated existing systems and new software tools.
- Implemented new profitability database system.
- Developed policies and procedures.

SENIOR FINANCE ANALYST - COCA COLA COMPANY -Los Angeles, CA (1994-1997)

- Prepared business review and presentations for senior management.
- Analyzed competitive data: the market, the category and the competitors.
- Automated financial reports and graphs; on-screen access using drop-down menus.
- Automated the monthly financial notebook; provided on-screen access to history notebooks.
- Supported and assisted in special projects.

SENIOR FINANCE ANALYST - HUGHES AIRCRAFT COMPANY -Canoga Park, CA (1990-1994)

- Lead analyst for Radar Guidance Design Laboratory.
- Prepared program budgets, operating plans and, manpower plans.
- Provided daily user support, group and individual training, for IBM mainframe, Macintosh & IBM PC systems, and Local Area Networks.