THIRD-PARTY CERTIFICATION AS AN ONLINE POINT-OF-PURCHASE STRATEGY: INVESTIGATION OF AN INITIAL TRUST MODEL

by

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(Under the Direction of Jooyoung Kim)

ABSTRACT

The purpose of this study is to assess the possibility of implementing an online point-of-purchase strategy using third-party privacy certification within the timeframe of initial trust. An online experiment was conducted, using a 2 (third-party seal: present vs. absent) × 2 (purchase-decision involvement: low vs. high) × 2 (disposition to trust: low vs. high) × 2 (self-efficacy: low vs. high) between-subjects design. A total of 209 undergraduate students at a major Southeastern university participated in the experiment. The results provided evidence of trust transference from a well-known third-party seal to an unfamiliar retailer website, indicating that seal presence was shown to raise initial trust in the website and that the effects of seal presence was mediated by perceived privacy empowerment. It was also revealed that the seal effects were moderated by the levels of one's purchase-decision involvement, disposition to trust, and self-efficacy. Theoretical explanations and managerial implications are further discussed.

INDEX WORDS: Third-Party Privacy Certification, Point of Purchase, Order Page, Initial Trust, Perceived Privacy Empowerment

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DEDICATION

This thesis is dedicated to my parents who have supported me all the way since the beginning of my studies. I would like to share this study with all those who believe in the richness of learning.

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Foremost, I would like to express my sincere gratitude to Dr. Jooyoung Kim for his immense knowledge, patience, and continuous support. I would also like to thank the rest of my thesis committee, Dr. Karen W. King and Dr. Spencer F. Tinkham, for their encouragement and insightful comments for this study.

TABLE OF CONTENTS

LIST OF TABLES

Page

LIST OF FIGURES

Page

CHAPTER I

INTRODUCTION

The scale of Internet-based electronic commerce (e-commerce) has grown substantially over the past decade as an alternative to brick-and-mortar stores (Fox, 2008). E-commerce is convenient and time saving mainly due to the rich and free information available online that allows consumers to compare product features and prices easily across manufacturers (Chen & Dubinsky, 2003; Li & Chatterjee, 2005). Total U.S. e-commerce sales have reached $220 billion and will exceed $330 billion by 2010, which accounts for 13 percent of total retail sales (eMarketer, 2008; E. T. G. Wang, Yeh, & Jiang, 2006). However, several disadvantages also accompany the rapid large-scale growth of e-commerce. Consumers who consider making transactions over the Internet are known to have multiple concerns, including privacy, legitimacy of sellers, and price fairness (Odom, Kumar, & Saunders, 2002) and, particularly, privacy has been identified consistently as a chief concern of online consumers (Bart, Shankar, Sultan, & Urban, 2005; Rifon, LaRose, & Choi, 2005).

The Internet, with its low entry barriers for competitors, has emerged as a highly competitive marketplace. To survive this cut-throat competition, online retailers must rely on a large amount of customer information to tailor products and services to customers' specific needs (Miyazaki & Fernandez, 2000). Against consumers' expectations, however, the information has been abused frequently by online retailers and even sold to third parties, and consumers' concerns about privacy have also been mounting (Andrade, Kaltcheva, & Weitz,

2002; Nam, Song, Lee, & Park, 2006). Online consumers are known to be most concerned about privacy and safety, contradicting the conventional wisdom that cost and convenience would be their key concerns (Jiang, Jones, & Javie, 2008). This implies that traditional marketing promotion efforts may not always be successful in e-commerce (Koufaris, Kambil, & Labarbera, 2001) and that safe and responsible handling of customer information can be a strategic tool for online marketers (Miyazaki & Fernandez, 2001).

Third-party privacy certification has evolved as a major self-regulation practice to deal with consumers' concerns about privacy in transacting with online retailers. It is generally guaranteed that a retailer endorsed by a third-party privacy certification program adheres to the Fair Information Practices (FIPs) (Benassi, 1999); FIPs is a general term for a set of standards governing the collection and use of personally identifiable information over the Internet (Federal Trade Commission, 1998). While consumers may not be motivated to spend their time and effort required to investigate the technical details of the privacy policy statement on a retailer website, a third-party seal can signal the privacy caring effort resulting in a favorable perception that the retailer website respects customer information privacy on the Internet (Belanger, Hiller, & Smith, 2002). Consequently, third-party seals have become prevalent among U.S. online retailers (Chang & Cheung, 2005) and, recently, a majority of Internet users are known to recognize major third-party seals (Hui, Teo, & Lee, 2007; Moores & Dhillon, 2003).

The drop-off rate at the point of purchase at online stores is significantly higher than at offline stores (Li & Chatterjee, 2005), by and large due to online consumers' concerns about privacy; it is at this stage that consumers should provide online retailers with their personal and payment information in order to complete purchases (Li & Chatterjee, 2005). A potential reason for the ineffectiveness of third-party seals, in spite of their presence on commercial websites, is

that the seals might have been placed in locations not readily noticeable by consumers. In this regard, posting a third-party seal on the order page, as a point-of-purchase strategy online, is expected to promote consumers' willingness to disclose personally identifiable information and intent to purchase by alleviating their concerns about privacy. Therefore, this study examines the effectiveness of placing a third-party seal in a potentially strategic location: the order page.

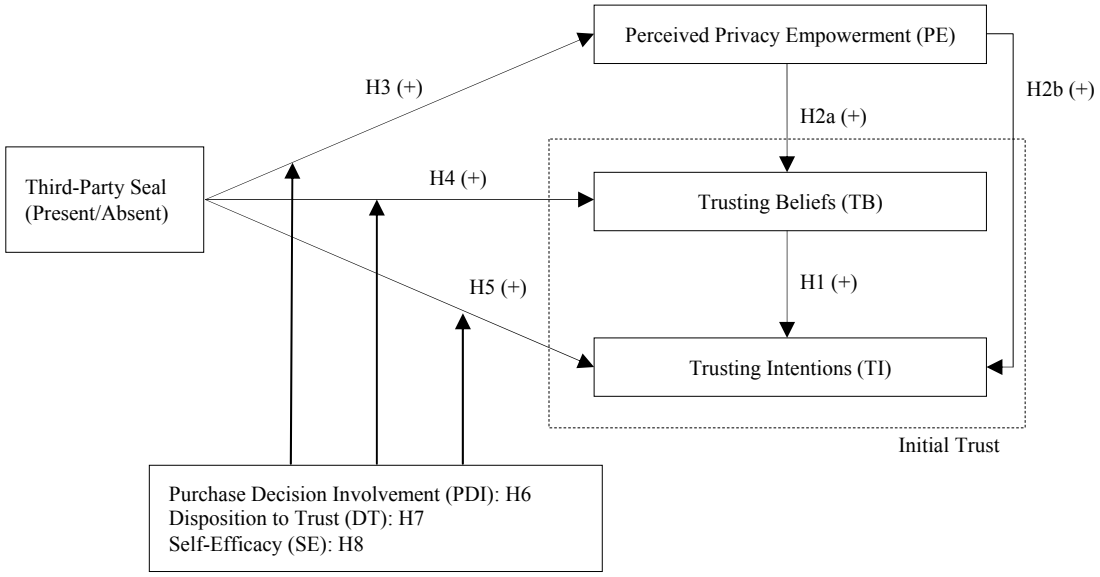
Prior studies have revealed the effect of third-party certification on promoting initial trust in unfamiliar websites (Chang & Cheung, 2005; S. Wang, Beatty, & Foxx, 2004). By the term "initial" this study means when a consumer and an online retailer first interact (McKnight, Cummings, & Chervany, 1998). Trust has been deemed to be built up gradually through the ongoing interactions between a consumer and a business, but these ongoing interactions may not be common in e-commerce (Koufaris & Hampton-Sosa, 2004). Given that the Internet marketplace is occupied consistently by only a few huge retailers, as numerous small-scale retailers create and then lose business (Lim & Dubinsky, 2005), the concept of experience-based trust can be applied for only these few retail giants. Consequently, it will be meaningful to examine other means of building trust that may not require extensive interactions at the early stage of consumer-retailer relationship.

The absence of a theoretical explanation which features a cognitive process that mediates the effect of third-party privacy certification constitutes a major limitation of previous studies. In this regard, this study adopts a construct, perceived privacy empowerment, from the study of Van Dyke, Midha, & Nemati (2007) as an antecedent of initial trust and explores its mediating role in influencing the effect of third-party privacy certification on promoting initial trust in a small-scale and unfamiliar online retailer. Moreover, few studies have paid attention to moderating factors that would affect the relationship between third-party privacy certification

and initial trust and, thus, this study examines the influences of three individual characteristic variables, purchase-decision involvement, disposition to trust, and self-efficacy, on the effectiveness of third-party privacy certification (McKnight et al., 1998; Mittal, 1989; Rifon et al., 2005).

This study is structured as follows. First, a series of relationships involving perceived privacy empowerment and the other two initial trust constructs, trusting beliefs and trusting intentions, are tested to ensure that perceived privacy empowerment is a significant predictor of initial trust. Once these hypothesized relationships are validated, the main effects of third-party certification on perceived privacy empowerment, trusting beliefs, and trusting intentions are examined to explain how third-party certification affects the relationships among the three constructs in building initial trust. Finally, this study tests the moderating roles of three individual characteristics, purchase-decision involvement, disposition to trust, and self-efficacy, in influencing the effectiveness of third-party privacy certification. Ultimately, this study aims to expand current understanding of third-party privacy certification effect and to assess the possibility of implementing an online point-of-purchase strategy using third-party privacy certification for small-scale and unfamiliar online retailers. Figure 1 presents an overview of this study.

Figure 1. A Proposed Conceptual Model of Initial Trust



CHAPTER II

LITERATURE REVIEW

Consumers' Concerns regarding Privacy on the Internet

The commercial development of World Wide Web has engendered a trust gap in e-commerce transactions, and the trust gap has centered on the privacy of personally identifiable information (Moores & Dhillon, 2003). In e-commerce literature, concerns about privacy on the Internet have been declared a major obstacle of consumer participation in online transactions (e.g., Miyazaki & Krishnamurthy, 2002; Rifon et al., 2005; Van Dyke et al., 2007). However, some online marketers have neglected to take care of privacy issues (Andrade et al., 2002), and the media coverage of Internet fraud, hacking, and identity theft has heightened consumers' awareness of privacy risks (Nam et al., 2006). As a result, consumers' concerns regarding privacy have been exacerbated; recently, 75 percent of Internet users stated that they do not like providing personal and payment information over the Internet (Horrigan, 2008).

Privacy Assurances

One method to alleviate consumers' perceived risks related to disclosing personally identifiable information to commercial websites is to provide consumers with privacy assurances (Mauldin & Arunachalam, 2002; Odom et al., 2002). There are several types of privacy assurances, but the U.S. e-commerce industry has set about self-regulatory practices that center

on the use of privacy policy statements and third-party privacy certification seals (Culnan, 2000; Moores & Dhillon, 2003).

A privacy policy statement is a comprehensive description of a website's information practices (Anton & Earp, 2004). Privacy policy statements have been used commonly by U.S. commercial websites as a means of disclosing their information practices to customers (Jensen & Potts, 2004). However, the effectiveness of privacy policy statements at reducing consumer concern about privacy is still debatable. This is largely because having a privacy policy statement does not guarantee that the website observes the Fair Information Practices (Milne & Culnan, 2002); privacy policy statements are often too long to be useful, considering that Internet users may not motivated to spend their time and effort to examine the details of privacy policy statements (Head & Hassanein, 2002; Milne & Culnan, 2002); and privacy policy statements also include a lot of technical terms, making them difficult for average users to comprehend (Anton & Earp, 2004; Belanger et al., 2002).

Another common self-regulatory practice, which is the focus of this study, is third-party privacy certification. To obtain a seal from a third-party authority, the online business is required to undergo a review process for evaluating the completeness of its information practices with a set of standards of the third-party authority (Benassi, 1999); the standards of third-party authorities are designed, basically on the basis of the principles of the Fair Information Practices (Moores & Dhillon, 2003). The costs of using third-party seals vary with the revenues generated by online businesses; the greater the revenues, the higher the costs of initial approval and ongoing monitoring (Miyazaki & Krishnamurthy, 2002; Moores & Dhillon, 2003). This suggests that third-party privacy certification can provide small-scale online businesses with a low-cost and easily adoptable method to build trust. There are several practical advantages of third-party

seals over privacy policy statements. First of all, third-party seals symbolically communicate third-party authorities, thus offering a more visible and easier way to reassure consumers that the online business respects customer privacy on the Internet (Liu, Marchewka, Lu, & Yu, 2005). It may be difficult to assess the effectiveness of privacy policy statements consistently because privacy policy statements are different from website to website and are also subject to change at the discretion of websites (Anton & Earp, 2004). On the other hand, third-party seals allow measuring the effectiveness more consistently, considering that third-party seals standardize websites' information practices in terms of the Fair Information Practices (Lwin & Williams, 2003).

Studies of Third-Party Privacy Certification

The research on the effectiveness of online retailer participation in third-party privacy certification programs has yielded mixed results, but a majority of studies have advocated the "comforting" effects of posting third-party seals on retailer websites (e.g., Chang & Cheung, 2005; Hu, Lin, & Zhang, 2003; S. Wang et al., 2004). For example, Wang et al. (2004) argued that the presence of a third-party seal would increase consumer willingness to disclose personal information to retailer websites. Hu et al. (2003) also claimed that a certain type of third-party seal would promote consumer intention to buy products from retailer websites. Moreover, Chang and Cheung (2005) showed that seal presence, in addition to retailer reputation, would enhance consumer trust in online retailers.

However, there is also skepticism about the effectiveness of third-party privacy certification because of the low awareness of third-party privacy certification or because third-party seals have been placed in locations not readily noticeable (e.g., privacy policy pages and

the bottom of home pages). For instance, Head and Hassanein (2002) argued that the awareness of third-party privacy certification was relatively low and that the presence of a third-party seal had a positive influence upon purchase decision for only those who were aware of the seal. With regard to locations for displaying third-party seals, for example, Miyazaki and Krishnamurthy (2002) displayed seals on the home pages and the privacy policy pages of their experimental websites, based on the fact that most certified websites displayed third-party seals on their home pages and/or privacy policy pages.

Consumer awareness of third-party privacy certification has been enhanced for the past several years. According to Moores and Dhillon (2003), 70 percent of online consumers, from 10 percent in 1999, were aware of a major third-party privacy certification program. Hui et al. (2007) also argued that a majority of Internet users were able to recognize major third-party seals. However, no study has examined the effectiveness of posting a third-party seal, focusing on a specific seal location. Previous studies have presented the comforting effects of third-party seals, placing them on the privacy policy pages and/or home pages of their experimental websites (e.g., Miyazaki & Krishnamurthy, 2002; Rifon et al., 2005). However, the studies directed the subjects' attention to the seals by using contrast colors or enlarging the seals. In reality, however, Internet users rarely or never visit privacy policy pages (Anton, Earp, Potts, & Alspaugh, 2001; Moores, 2005). Third-party seals displayed at the bottom of home pages may also be unnoticeable unless website visitors scroll down through the pages. Nevertheless, some of the studies reporting the comforting effects of third-party seals did not even mention where the seals were located on the stimulus websites (e.g., Chang & Cheung, 2005; Hu et al., 2003). Consequently, it is necessary to give more careful consideration to a desirable location for displaying third-party seals.

Point-of-Purchase on the Internet: Order Pages

One of the primary aims of this study is to examine the effectiveness of posting a third-party seal on the order page of a retailer website. There are several reasons why this study takes order pages into consideration. First of all, contrary to privacy policy pages, consumers must visit order pages to complete purchases, which will guarantee more exposure of third-party seals. Moreover, while message clutter, including a lot of instructions, banner advertisements, and product information, continues to grow on home pages (Brand 2.0, 2007), order pages tend to be relatively free from the message clutter; a preliminary content analysis of the U.S. top 100 online retailers (ForeSee Results, 2008) revealed that 97 websites out of 100 did not display any banner advertisement or additional product information on the order pages.

Above all, a third-party seal placed on the order page can prevent consumers from leaving a website without buying a product or service at the point of purchase. According to Li and Chatterjee (2005), at offline stores, less than 3 percent of consumers give up buying at the point of purchase, but more than 30 percent abandon purchases at online stores. Online consumers give up buying more frequently primarily because they are concerned about disclosing personally identifiable information to retailer websites (Li & Chatterjee, 2005). It is on the order page that consumers fill in their personal and financial information to finish buying. Unlike those standing in a checkout line, for example, online consumers who perceive privacy risks can simply give up buying and leave the website without any embarrassment, even if they are about to complete purchases. Therefore, posting a third-party seal on the order page, as an online point-of-purchase display, is expected to mitigate consumers' concerns about privacy and ultimately promote online transactions at the point-of-sale.

Hypotheses

A total of 8 hypotheses are developed, based on reviews of e-commerce literature. The first two hypotheses aim to elaborate the relationship between two established initial trust constructs, trusting beliefs and trusting intentions, and examine the role of perceived privacy empowerment as an antecedent of initial trust constructs. These two hypotheses serve as the basis for testing the next several hypotheses; that is, only if the relationships among the variables are validated, examining the effectiveness of third-party privacy certification on these three dependent variables would be meaningful. The next three hypotheses are to test the effectiveness of third-party privacy certification on each of the three dependent variables. Finally, the last three hypotheses pertain to the influences of three moderating variables, purchase-decision involvement, disposition to trust, and self-efficacy, upon the relationship between third-party certification and initial trust. The roles of these three moderators have been examined in general trust literature but largely overlooked in the area of initial trust (See Figure 1).

Initial Trust

This study focuses on building consumer initial trust in a small and unfamiliar online retailer by taking advantage of a third-party seal. The concept of initial trust is regarded as the trust at the beginning of the customer-business relationship with no prior e-commerce interaction history (McKnight & Chervany, 2001). Trust has long been treated as an experience-based attribute of relationships in the marketing field (Lambe, Spekman, & Hunt, 2000; Schoder & Haenlein, 2004). In other words, trust has been considered as forming gradually through ongoing interactions (e.g., transactions) between a business and a consumer (Chang & Cheung, 2005).

However, these ongoing interactions are not as common in e-commerce. Given that the Internet marketplace is consistently occupied by a few huge retailers—numerous small retailers keep creating and then losing their businesses shortly thereafter (Lim & Dubinsky, 2005)—the concept of experience-based trust can be applied to only these few retail giants. In fact, many small-scale online retailers, which lack national reputation and impressive size, are obstructed by consumer initial trust barriers because consumers perceive more risks in transacting with these retailers (Jarvenpaa, Tractinsky, & Saarinen, 1999; S. Wang et al., 2004). Consequently, whether these retailers can leap over the initial trust barriers determines the extent to which future interactions will take place.

When consumers first visit an online retailer, they tend to rely heavily on extrinsic website attributes, such as presentation style and third-party seals, to form their initial trust in the retailer (Abbott, Chiang, Hwang, Paquin, & Zwick, 2000; McKnight, Choudhury, & Kacmar, 2002). In this regard, initial trust is also referred to as "cue-based trust" (S. Wang et al., 2004). According to Wang et al. (2004), third-party seals can be easily adopted as a trust-building cue across most types of small online retailers. Jae and Delvecchio (2004) also argued that the presence of a visual stimulus at the point of purchase would improve decision-making for consumers who have no prior knowledge of the retailer.

McKnight and Chervany (2001) have developed an initial trust model, which is popular in e-commerce literature, centering on the two components: trusting beliefs and trusting intentions. It should be noted that the model excludes the affective component of trust (trusting attitudes) in that online trust at the initial stage is mainly cognitive due to the absence of interpersonal interaction (Ribbink, Van Riel, Liljander, & Streukens, 2004). Theoretically, this two-dimensional view of initial trust may provide a practical advantage that allows measuring

the effectiveness of third-party privacy certification more consistently by precluding emotional compounds (e.g., website involvement).

According to McKnight and Chervany (2001), the concept of trusting beliefs encompasses several elements, such as competence, benevolence, integrity, and predictability and, ultimately, these elements can be classified into two cognitive-based components: perceived trustworthiness and goodwill. These two components are likely to capture the most critical aspects of initial trust because consumers may primarily care about whether an unfamiliar website seems trustworthy and shows goodwill in their initial transactions with the website (Koufaris & Hampton-Sosa, 2004; McKnight & Chervany, 2001).

Trusting intentions are considered to be consumer willingness to depend on the other party (e.g., online retailer), even when the situation is vulnerable and uncertain (McKnight & Chervany, 2001). Trusting intentions are typically represented as the intentions to engage in specific behaviors, such as sharing personal information with a website and purchasing goods or services from the website (Bart et al., 2005). Ultimately, the initial trust model supposed that trusting beliefs in an online business would be positively related to trusting intention, following the basic premise of the theory of reasoned action (Fishbein & Ajzen, 1975; McKnight et al., 2002). Based on the discussion above, therefore, this study posits the following hypothesis:

H1: An increased level of trusting beliefs toward an unfamiliar website will lead to an increased level of trusting intentions.

Perceived Privacy Empowerment

Several studies have empirically tested the effectiveness of third-party privacy certification at building initial trust in online retailers. For example, Wang et al. (2004)

demonstrated the effects of several trust-building cues, including third-party seals, privacy disclosures, security disclosures, and awards from neutral sources, on promoting initial trust in an online retailer. However, the study has a major weakness, considering that it merely examined the signaling effect of a third-party seal, treating third-party privacy certification the same as the other trust-building cues. The study did not take into account the possibility that each trust-building cue might work in different ways, thus not examining the mechanism of how third-party privacy certification works. Therefore, the remaining task is to shed light on a cognitive process that mediates the effect of third-party privacy certification on initial trust.

Third-party privacy certification is different in nature from other trust-building cues in that it works primarily by having online consumers perceive that they have control over their personal information when engaging in e-commerce. In this regard, this study adopts a construct, perceived privacy empowerment, as a major antecedent of initial trust; perceived privacy empowerment is "a psychological construct related to the individual's perception of the extent to which they can control the distribution and use of their personally identifiable information" (Van Dyke et al., 2007, p. 73). Van Dyke et al. (2007) explained a mechanism by which perceived privacy empowerment affects trust, based on the generic trust model of Tan and Thoen (2001).

Tan and Thoen (2001) argued that trust in a transaction with another party consists of two basic components, party trust and control trust; party trust refers to the trust in the other party, and control trust is the trust in the control mechanisms that ensure the reliability of transaction processing (Tan & Thoen, 2001). In this sense, a specific online transaction can be promoted either by lowering one's personal threshold regarding a retailer website or by raising one's trust level related to the information practices of the website. As defined above, perceived privacy empowerment contributes to building trust by promoting one's confidence in the information

practices of a retailer website; that is, the role of perceived privacy empowerment is related to increasing control trust. In particular, the relationship between perceived privacy empowerment and control trust seems critical within the context of initial trust because consumers consistently have insufficient party trust in their initial transactions with unfamiliar websites. Finally, displaying a third-party seal on the order page of an unfamiliar website will be effective at promoting perceived privacy empowerment; online consumers are most likely to need control trust, especially when they are required to disclose personally identifiable information. Therefore, this study posits the following hypotheses.

H2: An increased level of perceived privacy empowerment will lead to an increased level of trusting beliefs (H2a) and an increased level of trusting intentions (H2b).

H3: Individuals will have significantly higher levels of perceived privacy empowerment when a third-party seal is displayed on the order page of an unfamiliar website than when the seal is not displayed.

Mechanisms of Third-Party Privacy certification

Consumers often do not have sufficient information about a product and/or a retailer when making a transaction on the Internet, primarily because of the impersonal nature of the Web (Ba & Pavlou, 2002). This information asymmetry may prevent online consumers from making an informed judgment as to whether an online retailer is trustworthy or untrustworthy and, ultimately, deter them from transacting with the retailer (B.-C. Lee, Ang, & Dubelaar, 2005). One approach to resolving this problem is market signaling (Kirmani & Rao, 2000). Online retailers can provide their customers with signals, including branding, money-back

guarantees, and privacy assurances, in an attempt to alleviate consumers' perceived information deficits and differentiate themselves from untrustworthy retailers (B.-C. Lee et al., 2005).

Third-party privacy certification can also build initial trust in an unfamiliar online retailer through a process of trust transference as well as market signaling (McKnight, Kacmar, & Choudhury, 2004). In e-commerce, trust transference often occurs when one party (e.g., a consumer) ascribes trustworthiness to an unfamiliar exchange partner (e.g., an unfamiliar online retailer), based on the partner's association with a trusted third party (e.g., a well-known third-party privacy certification authority). In this regard, Miyazaki and Krishnamurthy (2002) argued that posting a third-party seal on a retailer website can be considered as a co-branding strategy. In particular, an unfamiliar online retailer without a reputation may find it useful to post a well-known third-party seal on its website because the third-party seal can serve as a surrogate brand (Koehn, 2003). Based on the discussion above, therefore, this study posits the following hypotheses:

H4: Individuals will have significantly higher levels of trusting beliefs toward an unfamiliar website when a third-party seal is displayed than when the seal is not displayed.

H5: Individuals will have significantly higher levels of trusting intentions when a third-party seal is displayed than when the seal is not displayed.

Moderators: Purchase-Decision Involvement, Disposition to Trust, and Self-Efficacy

Purchase-Decision Involvement (PDI)

The concept of involvement has been frequently mentioned in advertising literature due to its influence upon consumers' cognitive and behavioral responses to advertising stimuli (Dholakia, 2001). In particular, the moderating role of involvement has been discussed from the

perspective of the elaboration likelihood model (ELM) (Petty, Cacioppo, & Schumann, 1983). According to Petty et al. (1983), one's involvement with the communicated topic, in addition to information-processing capability, will determine how one processes the persuasive message; specifically, they suggest that the central route of persuasion occurs when one is highly involved with the topic, and the peripheral route of persuasion occurs when one's involvement is limited. It should be also noted that involvement can be both enduring and situational because enduring and situational elements of involvement play different roles in influencing consumers' risk perceptions and subsequent responses (Dholakia, 2001).

In e-commerce literature, only did Yang, Hung, Sung, and Farn (2006) examine the trust-building mechanisms within the context of the ELM. Specifically, they tested the abilities of two trust-building cues, product information (central cue) and third-party seal (peripheral cue), to build initial trust in an unfamiliar website across high- and low-involvement conditions. As a result, they showed that the third party seal (peripheral cue) was effective at building consumers' initial trust under low-involvement conditions and that the product information (central cue) was successful under high-involvement conditions, which is consistent with the ELM. Yang et al. (2006) used Zaichkowsky's (1994) product-involvement scale that encompasses the enduring elements of involvement. However, this study adopts Mittal's (1989) purchase-decision involvement scale that captures the situational elements of involvement, assuming that one's involvement cannot be isolated from a purchase situation, especially during risky initial transactions with unknown websites; Mittal's (1989) purchase-decision involvement scale includes a risk dimension, but Zaichkowsky's (1994) product-involvement scale does not. Therefore, this study posits the following hypothesis, following the basic premise of the ELM.

H6: Individuals who have lower levels of PDI, not those with higher levels, will have significantly higher levels of perceived privacy empowerment (H6a); trusting beliefs toward an unfamiliar website (H6b); and trusting intentions (H6c) when a third-party seal is displayed than when the seal is not displayed.

Disposition to Trust (DT)

Disposition to trust is defined as "the extent to which one displays a consistent tendency to be willing to depend on others in general across a broad spectrum of situations and persons" (McKnight & Chervany, 2001, p. 45). McKnight, Cummings, and Chervany (1998) argued that disposition to trust affects trust in a specific other, especially when the other is unfamiliar or when the situation is uncertain. Given that e-commerce is primarily characterized by uncertainty involving a large physical distance between sellers and buyers, disposition to trust will be prominent in the Internet marketplace and, particularly, will play a critical role in determining the initial use of unfamiliar websites (McKnight et al., 2004; Ribbink et al., 2004). Nevertheless, no study has examined the moderating role of disposition to trust in the effects of third-party privacy certification within the context of initial trust.

Disposition to trust is known as stable and cross-situational in nature (McKnight et al., 1998). In the context of this study, this implies that consumers who have higher levels of disposition to trust is more likely to place higher initial trust in an unfamiliar website, compared to those with lower levels. As people with higher levels of disposition to trust might already show higher initial trust in an unfamiliar website, the presence of a third-party seal might have limited or less effect on increasing initial trust in the website. Because consumers with lower levels of disposition to trust would tend to show lower initial trust in an unfamiliar website, however, the room for increased initial trust based on seal presence might be larger. Under the

assumption that seal presence would induce trust transference, it would be possible to predict that the extent to which trust transference occurs would be significantly greater for those with lower levels of disposition to trust, compared to those with higher levels. Therefore, this study posits the following hypothesis:

H7: Individuals with lower levels of DT, not those with higher levels, will have significantly higher levels of perceived privacy empowerment (H7a); trusting beliefs toward an unfamiliar website (H7b); and trusting intentions (H7c) when a third-party seal is displayed than when the seal is not displayed.

Self-Efficacy (SE)

Another potentially important driver of trust in an unfamiliar online retailer is self-efficacy (Bart et al., 2005; Eastin & LaRose, 2000; Rifon et al., 2005). Self-efficacy, in the context of Internet privacy, is defined as beliefs in one's capability to protect one's privacy on the Internet (Eastin & LaRose, 2000). In this regard, levels of self-efficacy are often related to the amount of one's Internet experience; that is, consumers who have higher levels of self-efficacy are more likely to become less concerned about privacy when engaging in e-commerce. This is largely because as gaining more experience on the Internet, they establish their own privacy-protection mechanisms and tend to rely on the mechanisms rather than other trust-building cures (Eastin & LaRose, 2000; Miyazaki & Fernandez, 2001). On the other hand, those who have lower levels of self-efficacy with no self-protection mechanism may perceive online transactions as more risky, thus seeking out privacy assurances to reassure themselves (Rifon et al., 2005). Therefore, this study posits the following hypothesis:

H8: Individuals who have lower levels of SE, not those with higher levels, will have significantly higher levels of perceived privacy empowerment (H8a); trusting beliefs toward an

unfamiliar website (H8b); and trusting intentions (H8c) when a third-party seal is displayed than when the seal is not displayed.

CHAPTER III

METHODOLOGY

Overview of Research Design

An online experiment was designed to validate the proposed model of initial trust. Once the survey questionnaires including the stimulus Web pages were developed, two pretests, for manipulation and confound checks of stimulus materials, such as a website name, an order page, and a press release, were conducted. For the main experiment, participants received an e-mail requesting participation in the experiment with a link to a server that randomly assigned them to one of the two seal-treatment conditions. They were able to access an online survey from any computer at their convenience. The front pages of each of the online survey materials displayed a consent form to ascertain that students voluntarily agreed to participate in this study. Finally, respondents were given extra credit for their participation.

Pretests

Two pretests were conducted before collecting data to determine a target product and to check confounds of stimulus materials. A total of 59 undergraduate students participated in the pretests.

Target Product Selection

Thirty-eight participants were invited to report their purchase-decision involvement, assuming that they considered purchasing five target products: a backpack, cologne, running

shoes, running shorts, and a USB flash drive (2GB). These products were chosen on the premises that they are some of the most frequently-purchased items over the Internet (AdvertisingAge, 2008) and are relevant to the target sample (Yang et al., 2006). The products are also used by college students regardless of sex and are neither very expensive nor very cheap. The purchase-decision involvement for each product was measured with Mittal's (1989) 4-item, 7- point scale. As shown in Table 1, running shorts would discriminate clearly between the high- and low-involvement groups since the PDI index score for running shorts presented the most unbiased mean (closest to 4) and the highest standard deviation (e.g., Yang et al., 2006). Therefore, running shorts were chosen for this study.

Table 1. Purchase-Decision Involvement (PDI) Index Scores (n = 38)

Products	Purchase-Decision Involvement	
	M	SD
Backpack	4.72	1.20
Cologne	5.23	1.31
Running Shoes	5.59	.96
Running Shorts	4.26	1.34
USB Flash Memory (2GB)	3.07	1.18
Total	4.57	1.20

Web Order Pages

This study examines the effectiveness of displaying a third-party seal on the order page of an unfamiliar retailer website; therefore, two versions of a fictitious Web order page were created. The creation of the fictitious Web pages provided a practical advantage in controlling website attributes beyond the presence of a third-party seal (e.g., S. Wang et al., 2004). One of

the order pages displayed the TRUSTe seal conspicuously in the middle of the page, while the other displayed none. In every other respect, the two Web pages were identical in form and content. The basic information regarding TRUSTe appeared in a pop-up window when the mouse pointer was put on the seal. The TRUSTe seal was used for this study because the seal has shown highest levels of familiarity among Internet users, which has been confirmed by previous studies (e.g., Hui et al., 2007; Jiang et al., 2008; Miyazaki & Krishnamurthy, 2002; Rifon et al., 2005). The stimulus order pages were built upon presentation styles of popular retailer websites, but only general and typical design features were adapted to prevent participants from thinking of a specific website.

Thirty-eight participants were asked to give their opinions on the design attributes of the order page without displaying the TRUSTe seal. Participants rated the degree to which they agreed with the following four statements: "The website looks professionally designed;" "The screen design of the website (e.g., colors, fonts, and layout) is harmonious and well presented;" "The website seems convenient to use;" and "Overall, I like the design of the website." These statements were devised on the basis of Sutcliffe's (2002) website attractiveness and usability measures, and the responses to the four items were averaged to represent a single neutrality index (Cronbach's $\alpha = .88$). As a result, the neutrality index score for Web page design was $M = 4.14$ (1.32), which suggested that the stimulus website would be perceived as neutral, thus not confounding the effect of a third-party seal.

Website Name

A set of proposed names were randomly selected from the list of last names of the 2000 census data (U.S. Census Bureau, 2009) rather than from a dictionary to ensure that a website name did not connote specific product categories and benefits. The familiarity and neutrality for

each proposed name—*Brines.com, Joslyn.com, Metgler.com, Sinkey.com, and Winkler.com*—were assessed by 21 participants with the following four statements: "I am familiar with the name;" "The name seems to imply a unique product benefit;" "The name seems to warrant the quality of the products on the website;" and "Overall, I like the name." The responses to the three items, except those to the familiarity item, were averaged to represent an overall level of neutrality. As a result, *Joslyn.com* (Cronbach's $\alpha = .92$) was selected since the name presented the most unbiased neutrality score and the second lowest familiarity score. Table 2 shows the neutrality and familiarity scores for each name.

Table 2. Neutrality and Familiarity Index Scores: Website Names (n = 21)

Proposed Website Names	Neutrality		Familiarity	
	M	SD	M	SD
Brines.com	3.83	1.77	2.43	1.43
Joslyn.com	4.13	1.67	2.05	1.63
Metgler.com	2.68	1.26	1.71	1.06
Sinkey.com	2.38	.91	2.10	1.34
Winkler.com	3.48	1.48	2.90	1.81
Total	3.3	1.42	2.24	1.45

Press Release and Scenario

A press release, which informed participants of the launch of *Joslyn.com* in an objective manner, was created to demonstrate that *Joslyn.com* was a new online retailer with which participants had never transacted. Following a scenario explanation, moreover, participants were instructed to consider buying a product on the website because they were not able to surf the stimulus Web pages; the scenario method has been considered to be useful as a suitable

alternative to situations that may not be easily replicated in the laboratory (Eroglu, 1987). In order to lead participants to perceive a certain level of privacy risk, the scenario assumed that participants were required to register at *Joslyn.com* by providing such personal information as a name and e-mail address before making a purchase; a street address, a telephone number, and credit card information were necessary to complete the purchase; and, finally, they were able to save their delivery and payment information for later use by clicking a check box.

After reading the press release, 38 participants were asked to answer the questions regarding perceived likelihood of information abuse and trustworthiness of *Joslyn.com*. The items on estimated likelihood of information practices were adopted from the study of Rifon et al. (2005): "This website seems to track your online navigation and clicking behavior;" "This website seems to collect personal information from you;" and "This website seems to share personal information with third parties" (Cronbach's $\alpha = .82$). The items on perceived trustworthiness of an online retailer were adapted from the study of Jiang et al. (2008): "This website seems to provide reliable products and services to its customers;" "This website seems secure enough to transact;" and "Overall, I can trust this website" (Cronbach's $\alpha = .80$). The index scores for the two measures were neutral, $M = 4.16$ (.93) and $M = 4.02$ (1.04), respectively. As a result, it was ensured that the press release would not bias participants' perception of *Joslyn.com*.

Experimental Design and Participants

A total of 209 undergraduate students were recruited for this study, and they were randomly assigned to one of the two seal-treatment conditions. Though only the seal condition (i.e., present vs. absent) was manipulated, this study used a $2 \times 2 \times 2 \times 2$ between-subjects

design for data analyses: 2 (seal condition: presence vs. absence) × 2 (purchase-decision involvement: high vs. low) × 2 (disposition to trust: high vs. low) × 2 (Internet expertise: high vs. low). That is, the other three conditions (i.e., purchase-decision involvement, disposition to trust, and Internet expertise) were not manipulated but divided into two groups (i.e., high vs. low) after collecting data using median split methods. Finally, three individual characteristic variables, Internet shopping frequency, awareness of third-party certification, and attitude toward third-party certification, were controlled as the covariates (Head & Hassanein, 2002; Jiang et al., 2008; Pires, Stanton, & Eckford, 2004). With regard to sample characteristics, 98 percent of respondents fell into the age group of 18 to 24; 73 percent of them were female, while 27 percent were male; and all respondents had experience in shopping online at least once before and, specifically, they averaged 1.5 times per month of Internet shopping.

Dependent Measures

Three dependent variables were measured for evaluating the effectiveness of displaying a third-party seal on the order page of an unfamiliar website: trusting beliefs, trusting intentions, and perceived privacy empowerment. The scales for measuring initial trusting beliefs and trusting intentions were adopted from the studies of Koufaris and Hampton-Sosa (2004) and Bart et al. (2005), respectively. Both measures are consistent with those of the initial trust model of McKnight and his associates (McKnight & Chervany, 2001; McKnight et al., 2004) in that they capture the perceived trustworthiness and goodwill of an online retailer and one's willingness to depend on the retailer. The items on perceived privacy empowerment were devised according to the suggestion of Van Dyke et al. (2007); they argue that "the concept of empowering the individual control privacy is embedded within three out of four the Fair Information Practices

(notice, choice and access)" (p. 72) that serve as the basis for the principles of third-party certification seal programs. In this regard, participants rated the extent to which *Joslyn.com* would respect consumer privacy in terms of the three information practices. Table 3 specifies the measurement items.

Moderating Variables

In addition to purchase-decision involvement, disposition to trust and self-efficacy—perceived Internet expertise to protect personal information—were measured as the moderating variables. The items on disposition to trust were adopted from Gefen (2000)'s 5-item, 7-point scale, and individual self-efficacy was measured with the 3-item, 7-point scale of Bart et al. (2005) (See Table 3).

Table 3. Measurement Items

Measurement Items [1]	Sources
Dependent Variables	
Trusting Beliefs (Initial Trust) (.93) [2]	Koufaris & Hampton-Sosa (2004)
The website seems trustworthy.	
I trust the website to keep my best interest in mind.	
The website will keep promises it makes to me.	
I believe the information that the website provides me.	
It seems that the website wants to be known for keeping promises and commitments.	
Trusting Intentions (.89)	Bart et al. (2005)
I would register on the website.	
I would buy the product on the website.	
I would allow the website to remember my delivery and payment information for later use.	
I would provide some additional information (e.g., date of birth, product preference, and ethnicity) to get personalized services from the website.	
Overall, I am comfortable providing the website with my personal and financial information.	
Perceived Privacy Empowerment (.81)	Van Dyke et al. (2007)
The website will disclose its information practices (e.g., what information the website collects and how the website uses the information) before collecting personal information from its customers.	
The website will provide its customers with choices as to how their personal information is used beyond the use for which the information was provided (e.g., to complete a transaction).	
The website will offer customers reasonable access to the information the website has collected about them (e.g., a reasonable opportunity to review the information and to correct inaccuracies).	
Moderating Variables	
Purchase-Decision Involvement (.83 for running shorts)	Mittal (1989)
In selecting from the many types of and brands of [product] available on the Internet, would you say that: I would not care at all as to which one I buy – I would care a great deal as to which one I buy.	
Do you think that the various types of and brands of [product] available on the Internet are all very alike? They are all very alike – They are all very different.	
How important would it be to you to make the right choice from among [product] available on the Internet? Not at all important – Extremely Important	
In making your selection of [product] from among those available on the Internet, how concerned would you be about the outcome of your choice? Not at all concerned – Very much concerned	
Disposition to Trust (.91)	Gefen (2000)
I generally trust other people.	
I tend to count upon other people.	
I generally have faith in humanity.	
I feel that people are generally reliable.	
I generally trust other people unless they give me reason not to.	
Self-Efficacy (.83)	Bart et al. (2005)
I consider myself to be quite knowledgeable about the Internet in general.	
I am confident in my ability to assess the trustworthiness of websites.	
I am able to protect myself against the unwanted release of personal information.	

Covariates	
Internet Shopping Frequency	
On average, how frequently do you purchase products or services on the Internet per month?	
Awareness of Third-Party Certification (.91)	
I am aware of third-party certification privacy seal programs.	
I am aware of the purpose the third-party certification seal programs.	
I am aware of the TRUSTe privacy seal program.	
I am aware of the purpose of the TRUSTe privacy seal program.	
Attitude toward Third-Party Certification (.83)	Jiang et al. (2008)
I do NOT pay attention to whether an online retailer is certified by a third-party certification privacy seal program or not.	
I specifically look for third-party certification privacy seals on websites.	
I generally have faith in third-party certification privacy seals.	
I generally trust third parties.	

1. All of the items were measured on a 7-point scale.
2. The value in the parentheses indicates Cronbach's α.

CHAPTER IV

RESULTS

Hypotheses Testing

Relationships among Trusting Beliefs, Trusting Intentions, and Perceived Privacy Empowerment

Hypothesis 1 predicted that an increased level of trusting beliefs toward an unfamiliar online retailer would lead to an increased level of trusting intentions, and H2 stated that an increased level of perceived privacy empowerment would result in an increased level of trusting beliefs toward the retailer (H2a) and an increased level of trusting intentions (H2b). Three simple linear regressions were performed to test the hypothesized relationships, using pooled data. First, the hypothesized relationship between trusting beliefs and trusting intentions was confirmed with the standardized coefficient of .62 ($p < .001$), thus supporting H1. As predicted by H2a and H2b, moreover, perceived privacy empowerment had a positive influence on trusting beliefs and trusting intentions with the standardized coefficients of .54 ($p < .001$) and .50 ($p < .001$), respectively. Table 4 shows the test results.

Table 4. Test Results of Hypothesized Relationships

Proposed Relationships	β	t	Sig.
TB → TI	.62	11.05	.000
PE → TB	.54	9.03	.000
PE → TI	.50	8.17	.000

Note: The relationship is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Main Effects

Hypotheses 3, 4, and 5 predicted that perceived privacy empowerment, trusting beliefs toward an unfamiliar website and trusting intentions would be significantly higher when a third-party seal was displayed on the order page of the retailer website than when the seal was not displayed. An analysis of covariance (ANCOVA) was performed for each of the three dependent variables, perceived privacy empowerment (H3: PE), trusting beliefs (H4: TB), and trusting intentions (H5: TI), with Internet shopping frequency, awareness of third-party certification, and attitude toward third-party certification as the covariates.

First, the test revealed that the respondents under seal-presence (SP) conditions perceived themselves as more empowered in terms of the information practices of the website than those under seal-absence (SA) conditions, $M_{SP} = 4.64$, $M_{SA} = 4.28$, F (1,197) = 5.59, $p = .05$, thus supporting H3. In addition, the respondents under seal-presence conditions reported significantly greater trusting beliefs, $M_{SP} = 5.04$, $M_{SA} = 4.62$, F (1, 195) = 5.67, $p < .05$, and trusting intentions, $M_{SP} = 4.24$, $M_{SA} = 3.55$, F (1, 196) = 10.47, $p < .01$. Therefore, H4 and H5 are supported. The summary of test results is shown in Table 5.

Table 5. Seal Effects on Three Dependent Variables: Main Effects

Dependent Variables	Seal Absence		Seal Presence		F	Sig.
	M	SD	M	SD		
PE	4.28 (n=101)	1.07	4.64 (n=102)	.97	5.59	.019
TB	4.62 (n=98)	1.04	5.04 (n=103)	.92	5.67	.018
TI	3.55 (n=99)	1.38	4.24 (n=103)	1.27	10.47	.001

Note: The mean difference is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Moderating Effects

The responses to three continuous measures, purchase-decision involvement (PDI), disposition to trust (DT), and self-efficacy (SE), were dichotomized as high or low by median split to test the hypotheses of moderating effects. Table 6 presents the distribution of the responses to each of the three measures. As a result, this procedure generated 12 analysis cells, and the sample size of each cell ranged from 34 to 67 (See Figure 2).

Table 6. Distributions of the Responses to PDI, DT, and SE

Variables	Distribution					Sample Size (n)	
	Min	Max	Mean	SD	Median	Low	High
PDI	1.25	7.00	4.81	1.24	4.75	106 (50.7%)	103 (49.3%)
DT	1.40	7.00	4.81	1.12	5.00	123 (58.9%)	86 (41.1%)
SE	1.00	7.00	4.80	1.13	5.00	136 (65.1%)	73 (34.9%)

Note: Each variable was measured with a 7-point scale.

Figure 2. Sample Size of Each Analysis Cell

PDI

Seal	High	Low
Present	51	51
Absent	47	52

Disposition to Trust

Seal	High	Low
Present	39	64
Absent	45	55

Self-Efficacy

Seal	High	Low
Present	36	67
Absent	34	65

First, H6 predicted that purchase-decision involvement would moderate the effects of a third-party seal on three dependent variables, perceived privacy empowerment (H6a), trusting beliefs (H6b) and trusting intentions (H6c), respectively. The effectiveness of seal presence on each dependent variable was tested separately under low- and high-involvement conditions. An

ANCOVA was performed to test each hypothesis with Internet shopping frequency, awareness of third-party certification, and attitude toward third-party certification as the covariates. The results showed that perceived privacy empowerment, trusting beliefs, and trusting intentions were significantly greater under seal-presence conditions only for those who had lower levels of purchase-decision involvement, thus supporting H6 (See Tables 7-1 & 7-2).

Table 7-1. Seal Effects on Three Dependent Variables: Low-PDI Conditions

Dependent Variables	Seal Absence		Seal Presence		F	Sig.
	M	SD	M	SD		
PE	4.17 (n=52)	.94	4.75 (n=51)	.79	11.03	.001
TB	4.43 (n=51)	1.01	4.89 (n=51)	.75	3.84	.047
TI	3.49 (n=52)	1.37	4.37 (n=52)	1.03	13.729	.000

Note: The mean difference is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Table 7-2. Seal Effects on Three Dependent Variables: High-PDI Conditions

Dependent Variables	Seal Absence		Seal Presence		F	Sig.
	M	SD	M	SD		
PE	4.39 (n=49)	1.19	4.54 (n=51)	1.11	.226	.635
TB	4.71 (n=47)	1.09	5.19 (n=52)	1.05	2.232	.139
TI	3.61 (n=47)	1.40	4.10 (n=51)	1.48	1.40	.240

Note: The mean difference is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Hypothesis 7 stated that disposition to trust would moderate the effects of a third-party seal on perceived privacy empowerment (H7a), trusting beliefs (H7b), and trusting intentions (H7c). The effectiveness of seal presence was tested for each of the three dependent variables under low- and high disposition-to-trust conditions, respectively. These hypotheses were tested

by the same procedure as that used to test H6. As predicted by H7, the results showed that only for those who had lower levels of disposition to trust were perceived privacy empowerment, trusting beliefs, and trusting intentions significantly higher under seal-presence conditions than seal-absence conditions. Therefore, H7 is supported (See Tables 8-1 and 8-2).

Table 8-1. Seal Effects on Three Dependent Variables: Low-DT Conditions

Dependent Variables	Seal Absence		Seal Presence		F	Sig.
	M	SD	M	SD		
PE	4.04 (n=55)	.94	4.50 (n=63)	.88	7.55	.007
TB	4.25 (n=53)	.92	4.83 (n=65)	.89	9.80	.002
TI	3.25 (n=55)	1.29	4.07 (n=64)	1.16	11.20	.001

Note: The mean difference is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Table 8-2. Seal Effects on Three Dependent Variables: High-DT Conditions

Dependent Variables	Seal Absence		Seal Presence		F	Sig.
	M	SD	M	SD		
PE	4.57 (n=46)	1.14	4.87 (n=39)	1.06	1.10	.297
TB	5.04 (n=45)	1.03	5.38 (n=38)	.88	.97	.328
TI	3.92 (n=44)	1.41	4.51 (n=39)	1.41	2.28	.135

Note: The mean difference is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Finally, H8 predicted the moderating effects of self-efficacy in influencing the effects of seal presence on perceived privacy empowerment (H8a), trusting beliefs (H8b), and trusting intentions (H8c). The seal effect on each of the three dependent variables was tested with an ANCOVA. The results revealed that H8a, H8b and H8c were supported. The tests confirmed the moderating effects of self-efficacy; only for those who had low self-efficacy were perceived

privacy empowerment, trusting beliefs, and trusting intentions significantly greater under seal-presence conditions than under seal-absence conditions. However, the display of a third-party seal had a marginal effect ($p < .10$) on trusting intentions for those who had high self-efficacy (See Tables 9-1 & 9-2). Table 10 presents an overall summary of findings.

Table 9-1. Seal Effects on Three Dependent Variables: Low-SE Conditions

Dependent Variables	Seal Absence		Seal Presence		F	Sig.
	M	SD	M	SD		
PE	4.17 (n=66)	.97	4.49 (n=66)	.90	5.48	.021
TB	4.41 (n=64)	.96	4.87 (n=67)	.75	8.28	.005
TI	3.45 (n=65)	1.25	4.03 (n=67)	1.15	7.57	.007

Note: The mean difference is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Table 9-2. Seal Effects on Three Dependent Variables: High-SE Conditions

Dependent Variables	Seal Absence		Seal Presence		F	Sig.
	M	SD	M	SD		
PE	4.48 (n=35)	1.22	4.93 (n=36)	1.02	1.53	.221
TB	5.01 (n=34)	1.11	5.34 (n=36)	1.12	.38	.538
TI	3.74 (n=34)	1.61	4.62 (n=36)	1.42	3.51	.066

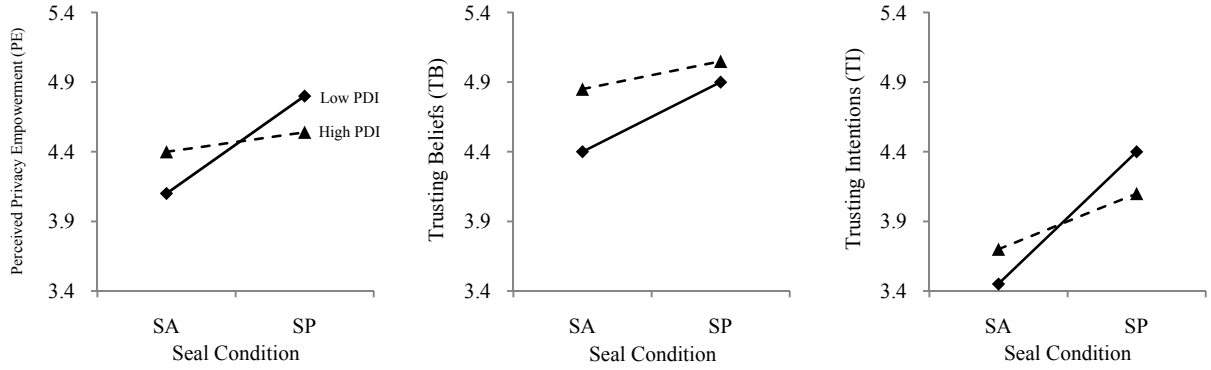
Note: The mean difference is significant at the levels of * $p < .05$, ** $p < .01$, and *** $p < .001$

Table 10. Summary of Findings: Mean Differences

Conditions [1]	Hypotheses [2]	Results					
		Dependent Measures [3]		Means		*p*-value	Test Results
				SP	SA		
Main Effects	$M_{SP} > M_{SA}$	PE	$M_{SP} > M_{SA}$	4.64	4.28	.019	Supported
	$M_{SP} > M_{SA}$	TB	$M_{SP} > M_{SA}$	5.04	4.62	.018	Supported
	$M_{SP} > M_{SA}$	TI	$M_{SP} > M_{SA}$	4.24	3.55	.001	Supported
LO-PDI	$M_{SP} > M_{SA}$	PE	$M_{SP} > M_{SA}$	4.75	4.17	.001	Supported
	$M_{SP} > M_{SA}$	TB	$M_{SP} > M_{SA}$	4.89	4.43	.047	Supported
	$M_{SP} > M_{SA}$	TI	$M_{SP} > M_{SA}$	4.37	3.49	.000	Supported
HI-PDI	$M_{SP} = M_{SA}$	PE	$M_{SP} = M_{SA}$	4.54	4.39	.635	Supported
	$M_{SP} = M_{SA}$	TB	$M_{SP} = M_{SA}$	5.19	4.71	.139	Supported
	$M_{SP} = M_{SA}$	TI	$M_{SP} = M_{SA}$	4.10	3.61	.240	Supported
LO-DT	$M_{SP} > M_{SA}$	PE	$M_{SP} > M_{SA}$	4.50	4.04	.007	Supported
	$M_{SP} > M_{SA}$	TB	$M_{SP} > M_{SA}$	4.83	4.25	.002	Supported
	$M_{SP} > M_{SA}$	TI	$M_{SP} > M_{SA}$	4.07	3.25	.001	Supported
HI-DT	$M_{SP} = M_{SA}$	PE	$M_{SP} = M_{SA}$	4.87	4.57	.297	Supported
	$M_{SP} = M_{SA}$	TB	$M_{SP} = M_{SA}$	5.38	5.04	.328	Supported
	$M_{SP} = M_{SA}$	TI	$M_{SP} = M_{SA}$	4.51	3.92	.135	Supported
LO-SE	$M_{SP} > M_{SA}$	PE	$M_{SP} > M_{SA}$	4.49	4.17	.021	Supported
	$M_{SP} > M_{SA}$	TB	$M_{SP} > M_{SA}$	4.87	4.41	.005	Supported
	$M_{SP} > M_{SA}$	TI	$M_{SP} > M_{SA}$	4.03	3.45	.007	Supported
HI-SE	$M_{SP} = M_{SA}$	PE	$M_{SP} = M_{SA}$	4.96	4.48	.221	Supported
	$M_{SP} = M_{SA}$	TB	$M_{SP} = M_{SA}$	5.34	5.01	.538	Supported
	$M_{SP} = M_{SA}$	TI	$M_{SP} = M_{SA}$	4.62	3.74	.066	Supported

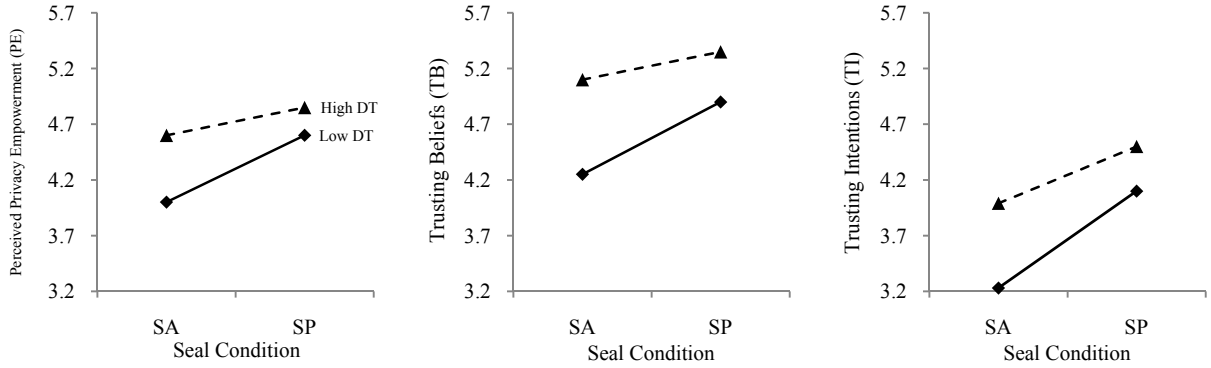
1. LO-PDI (Low Purchase-Decision Involvement), HI-PDI (High Purchase-Decision Involvement), LO-DT (Low Disposition to Trust), HI-DT (High Disposition to Trust), LO-SE (Low Self-Efficacy), HI-SE (High Self-Efficacy)
2. SP (Seal Present), SA (Seal Absent)
3. PE (Privacy Empowerment), TB (Trusting Beliefs), TI (Trusting Intentions)
* $p < .05$, ** $p < .01$, and *** $p < .001$

Figure 3-1. Moderating Effects of Purchase-Decision Involvement (PDI)



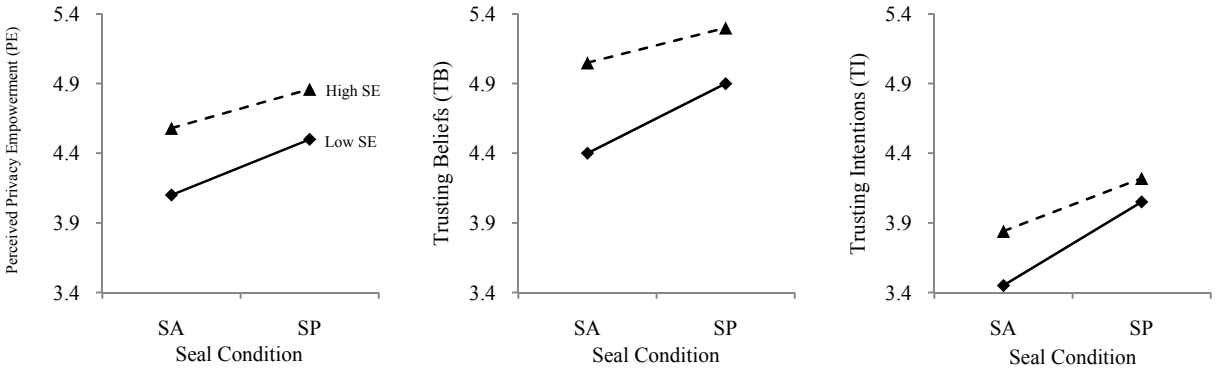
Note: The vertical axis of each graph represents the estimated marginal mean.

Figure 3-2. Moderating Effects of Disposition to Trust (DT)



Note: The vertical axis of each graph represents the estimated marginal mean.

Figure 3-3. Moderating Effects of Self-Efficacy (SE)



Note: The vertical axis of each graph represents the estimated marginal mean.

CHAPTER V

DISCUSSION

Summary of Findings and Implications

The purpose of this study was to assess the possibility of implementing an online point-of-purchase strategy using third-party privacy certification within the timeframe of initial trust. Specifically, this study aimed to explore a mechanism of how third-party certification works; to test the effects of third-party certification on promoting perceived privacy empowerment, trusting beliefs, and trusting intentions; and to examine the roles of three moderators, purchase-decision involvement, disposition to trust, and self-efficacy, in influencing the effects of third-party certification on the three dependent variables. The results of this study provided evidence of trust transference from a well-known third-party seal to an unfamiliar retailer website. Specifically, the results indicated that the presence of a third-party seal was shown to raise trusting beliefs and trusting intentions toward an unfamiliar online retailer, and the effects of seal presence on initial trust was mediated by perceived privacy empowerment. It was also revealed that the seal effects on each dependent variable were dependent upon the levels of purchase-decision involvement, disposition to trust, and self-efficacy.

The absence of a theoretical explanation which features a cognitive process that mediates the effects of privacy assurances constitutes a major limitation of previous studies (Andrade et al., 2002). In this regard, this study posited two initial hypotheses to explore a series of cognitive processes involving the relationships among trusting beliefs, trusting intentions, and perceived

privacy empowerment, before testing the main effects of third-party certification on these three dependent variables. First, the relationship between trusting beliefs and trusting intentions was confirmed, as predicted by the initial trust-building model of McKnight et al. (2002). The other two relationships between perceived privacy empowerment and trusting beliefs and between perceived privacy empowerment and trusting intentions were also demonstrated, consistent with the findings of Van Dyke et al. (2007) about the association between perceived privacy empowerment and trust in e-commerce.

Once a series of the hypothesized relationships were confirmed, this study tested whether third-party certification would promote perceived privacy empowerment, trusting beliefs, and trusting intentions and, if so, how third-party certification would affect the relationships among the three dependent variables in building initial trust. The results indicated that all of the three dependent variables were promoted when a third-party seal was displayed; therefore, it could be argued that trust transference occurred through a series of cognitive processes from perceived privacy empowerment to trusting intentions, indicating that perceived privacy empowerment served as a significant predictor of initial trust and, therefore, mediated the effects of third-party certification on promoting initial trust.

This provides a more detailed explanation of how third-party certification contributes to building initial trust and, specifically, suggests that online marketers may be able to build consumers' initial trust in retailer websites by empowering consumers with third-party certification even though consumers have no prior experience with the websites (e.g., Koufaris & Hampton-Sosa, 2004). It should also be noted that the impacts of displaying a third-party seal on the order page of an unfamiliar website were marked, especially in promoting trusting intentions as well as perceived privacy empowerment and trusting beliefs. Third-party certification

promoted individuals' intentions to have the website remember their personal and payment information and to disclose more sensitive information to the website as well as their intentions to register on the website and to buy a product from the website. As a result, the practice of displaying a third-party seal on the order page of a retailer website seems encouraging, considering that behavioral intention variables are difficult to promote but are the best indicators of advertising effectiveness (Mehta, 1994; Zeithaml, Berry, & Parasuraman, 1996).

Consumers may differ in their purchase-decision involvement, disposition to trust, and self-efficacy when engaging in e-commerce (Larose & Rifon, 2007; M. K. O. Lee & Turban, 2001; Rifon et al., 2005). In addition to the main effects, therefore, this study examined the roles of these three moderating variables in influencing the effects of third-party certification to provide a more thorough explanation of the seal effects. First, the results indicated that the presence of a third-party seal promoted perceived privacy empowerment, trusting beliefs, and trusting intentions only for consumers who had lower purchase-decision involvement, and not for those with higher levels. This suggests that consumers with lower levels of purchase-decision involvement tend to rely more on peripheral cues in their initial transactions with unfamiliar online retailers as a means of "instant relief" from their concerns about privacy.

It was also revealed that third-party certification promoted perceived privacy empowerment, trusting beliefs, and trusting intentions only for consumers with lower levels of disposition to trust—for those who had higher disposition to trust, levels of the three dependent variables were also greater when a third-party seal was displayed, but the differences were not statistically significant, as expected. Finally, third-party certification was shown to raise perceived privacy empowerment, trusting beliefs, and trusting intentions only for consumers with lower levels of self-efficacy; on the other hand, those who had higher self-efficacy were

unaffected by seal presence. Combining these two results leads to an important finding. Specifically, third-party certification would promote initial trust, especially for consumers who are worried more about potential abuse of their personal information but are less knowledgeable in protecting the information on the Internet; in fact, they are most likely to abandon purchases at the point-of-sale during initial transactions with unfamiliar online retailers.

Moreover, a closer look at the results of the seal effects across high and low self-efficacy conditions indicated that for those with higher levels of self-efficacy, third-party certification might also have a meaningful effect on their trusting intentions ($p = .66$, significant at $p = .10$ level). This finding contradicts the common belief that individuals with higher levels of self-efficacy are less likely to seek out privacy assurances (Rifon et al., 2005). The result may be ascribed to the fact that trusting intentions are at the highest level in a general hierarchy of purchase-decision process (Sheppard, Hartwick, & Warshaw, 1988). This suggests that even highly self-efficacious consumers may want to "crosscheck" their decisions to purchase right before buying and, therefore, seek out privacy assurances. This reconfirms the effects of the practice of displaying a third-party seal on the order page of an unfamiliar retailer website.

Overall, the findings of this study improve the understanding of how third-party certification plays a critical role in stimulating consumers' perception of online retailers' trustworthiness. This study constitutes an exploratory effort, which studies the effects of an online point-of-purchase strategy using third-party certification on building initial trust in an unfamiliar online retailer. In particular, the third-party seal placed on the order page, as a peripheral cue, contributed to building initial trust in the unfamiliar website by empowering consumers to have confidence in terms of the information practices of the website. It was also revealed that third-party certification was effective for the most vulnerable type of consumers,

those who worried more about their privacy but did not know how to protect their privacy on the Internet. Therefore, online marketers who intend to post third-party seals on their websites should consider displaying them on the order pages of their websites.

Limitations and Future Research

Despite several important findings, this study has some potential limitations. First, this study examined the effectiveness of displaying a third-party seal on the order page of a website, arguing the ineffectiveness of the current industry practices of posting third-party seals on privacy policy pages and/or at the bottom of home pages (e.g., Turow, 2003). Nevertheless, this study did not empirically test the effectiveness of seal presence across these locations, which may provide a limited explanation of the effects of point-of-purchase seal display. Future study warrants a more thorough examination of the effectiveness of third-party certification by comparing the relative impacts of third-party certification on privacy policy pages, home pages, and order pages. In addition, although this study presented the mediating roles of perceived privacy empowerment, there may be other possible antecedents of initial trust in explaining the effects of third-party certification. Therefore, more rigorous theoretical examinations are required.

With regard to the data collection procedure, participants were asked to assume that they considered purchasing a specific product on the stimulus website before answering the survey questions; this study used an inactive Web page, not an active website that could allow participants to navigate and choose their favorite products. Therefore, some external factors, such as participants' lack of interest in the product, might have affected the results. It could also be argued that the student sample used in this study might not represent a larger non-student

population. Nevertheless, the use of a student sample is still meaningful for several reasons, especially within the context of this study. First of all, current college students are the first generation of Internet users who might have begun to use the Internet from an early age (Rifon et al., 2005). Moreover, younger consumers are more likely to purchase online than older consumers, thus being exposed to greater risk of privacy violations (Larose & Rifon, 2007; Odom et al., 2002). Finally, the female-dominant sample would affect purchase-decision involvement with a product and general trust in e-commerce. However, Fallows (2005) argued that the amount of Internet use and online transaction activities are similar between women and men.

This study made an initial and important step toward more academic and practical efforts to examine the usefulness of an online point-of-purchase strategy using third-party certification. The findings of this study may be useful, especially for many small-scale and unfamiliar online retailers, in that third-party privacy certification would provide them with a relatively inexpensive and easily-adoptable way to build initial trust. The practice of posting a third-party seal, as a means of point-of-purchase display, seems desirable not only because it may induce consumers to engage in e-commerce, but also because it will make e-commerce healthier overall as this practice becomes more popular. Finally, the findings of this study can also be extended to some other domains. Consumer privacy on the Internet has recently been challenged by the emergence of Web 2.0. “Web 2.0” is an overarching term that refers to a new era of Web-enabled applications that are built around user-generated content, such as blogs and social networking sites (Fox, 2008). Because it is characterized mainly by openness (Greenmeier & Gaudin, 2008), the potential loss of privacy may be a worry, especially for those who are concerned about sharing personal information over the Internet and perceive themselves as

lacking Internet expertise. Therefore, third-party certification can also be applied for the areas of blogs or social networking websites as well as commercial websites.

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APPENDIX

ONLINE SURVEY QUESTIONNAIRE

[PART 1]

Please answer the following questions below.

1. I use the Internet mainly…
   1) as an information tool
   2) for business/work
   3) for shopping
   4) for entertainment;
   5) for other purposes (PLEASE SPECIFY)

2. How much time do you spend on the Internet for only personal purposes (EXCEPT THE BUSINESS/WORK PURPOSE)?
   ___ Hours (A DAY)

3. Have you ever purchased anything on the Internet?
   1) Yes
   2) No

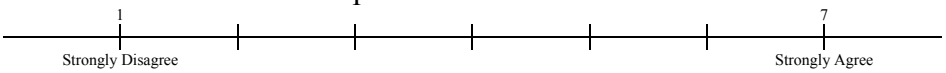
4. [IF YES] On average, how frequently do you purchase products or services on the Internet PER MONTH?
   (PLEASE ENTER A POSITIVE NUMBER IN THE BOX BELOW)

[PART 2]

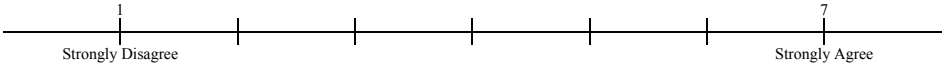
The next few sets of questions ask you about your perception of online shopping.

Compared to local stores, it seems that…

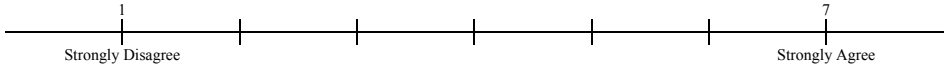
1. online retailers offer lower prices.



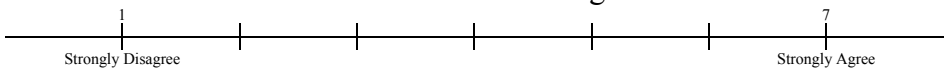
2. online retailers offer better selection.



3. online retailers offer better quality.

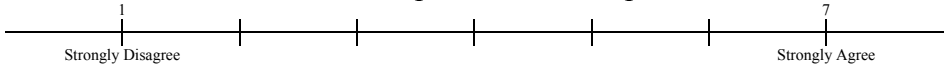


4. online retailers are more convenient to use in general.

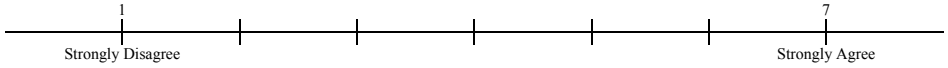


Based on your past online shopping experience,

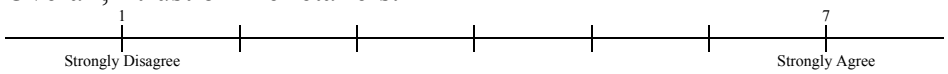
5. most online retailers are able to provide reliable products and services to customers.



6. most online retailers offer secure transactions.

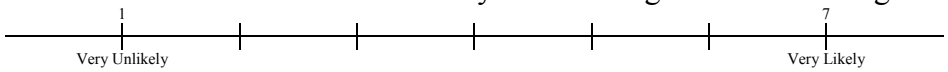


7. Overall, I trust online retailers.

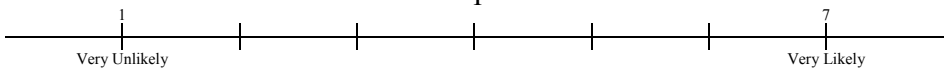


Based on your past online shopping experience,

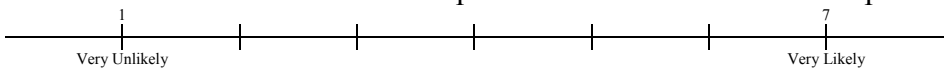
8. most online retailers seem to track my online navigation and clicking behavior.



9. most online retailers seem to collect personal information from me.

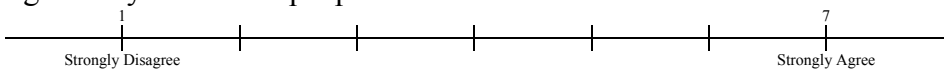


10. most online retailers seem to share personal information with third parties.

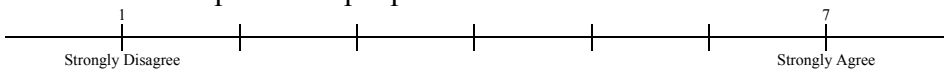


Please answer the questions below.

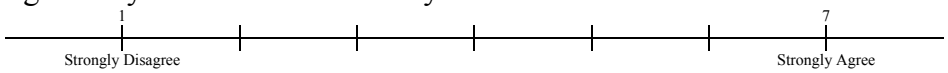
11. I generally trust other people.



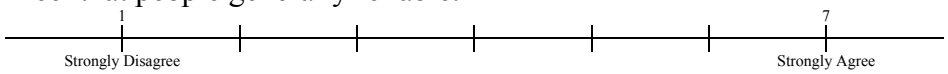
12. I tend to count upon other people.



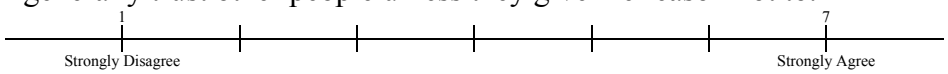
13. I generally have faith in humanity.



14. I feel that people generally reliable.



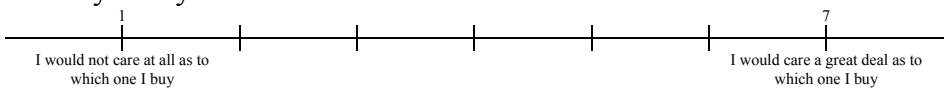
15. I generally trust other people unless they give me reason not to.



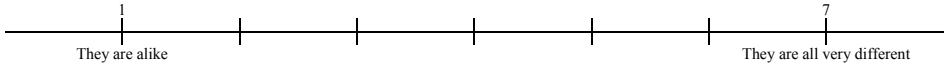
[PART 3]

The next few questions ask about your perception of buying SPORTS APPAREL (RUNNING SHORTS) on the Internet.

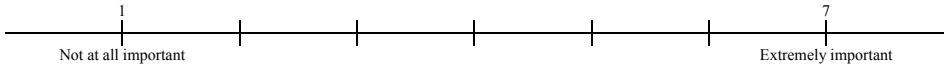
1. In selecting from the many types of and brands of running shorts available on the Internet, would you say that:



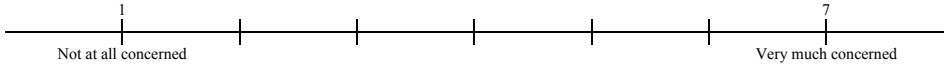
2. Do you think that the various types of and brands of running shorts available on the Internet are all very alike or are all very different?



3. How important would it be to you to make the right choice from among the running shorts available on the Internet?



4. In making your selection of a pair of running shorts from among those available on the Internet, how concerned would you be about the outcome of your choice?



[PART 4]

Please read the following PRESS RELEASE carefully.

Joslyn Company Launches Its First E-commerce Website

Indianapolis, United States – January 28, 2009 – Joslyn Company announced today the launch of its e-commerce website, Joslyn.com, which will sell direct to consumers in the United States over the Internet starting April 1st, 2009. The site will offer sports apparel with a wide array of high-quality products that reflect the store's pride.

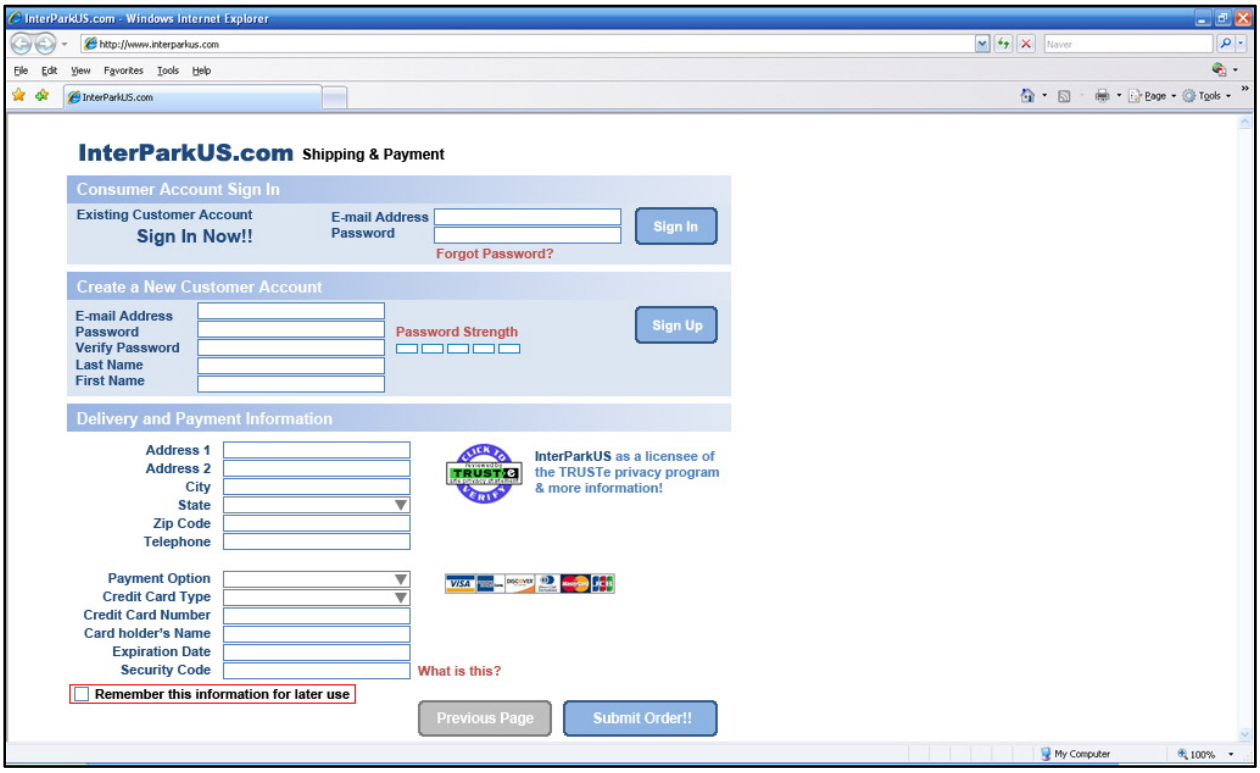
"We are very excited to launch our e-commerce site," said John S. Hamilton, the chief marketing director of Joslyn.com. "We are confident that the site will provide a compelling online experience for our customers."

Joslyn.com is partnering with a e-commerce solution provider to develop and operated its online store at www.joslyn.com. The provider will develop and operate facets of the online store, including customer service, order processing, and fulfillment. To celebrate the opening of Joslyn.com, a variety of special promotion items will be available for spring on the website.

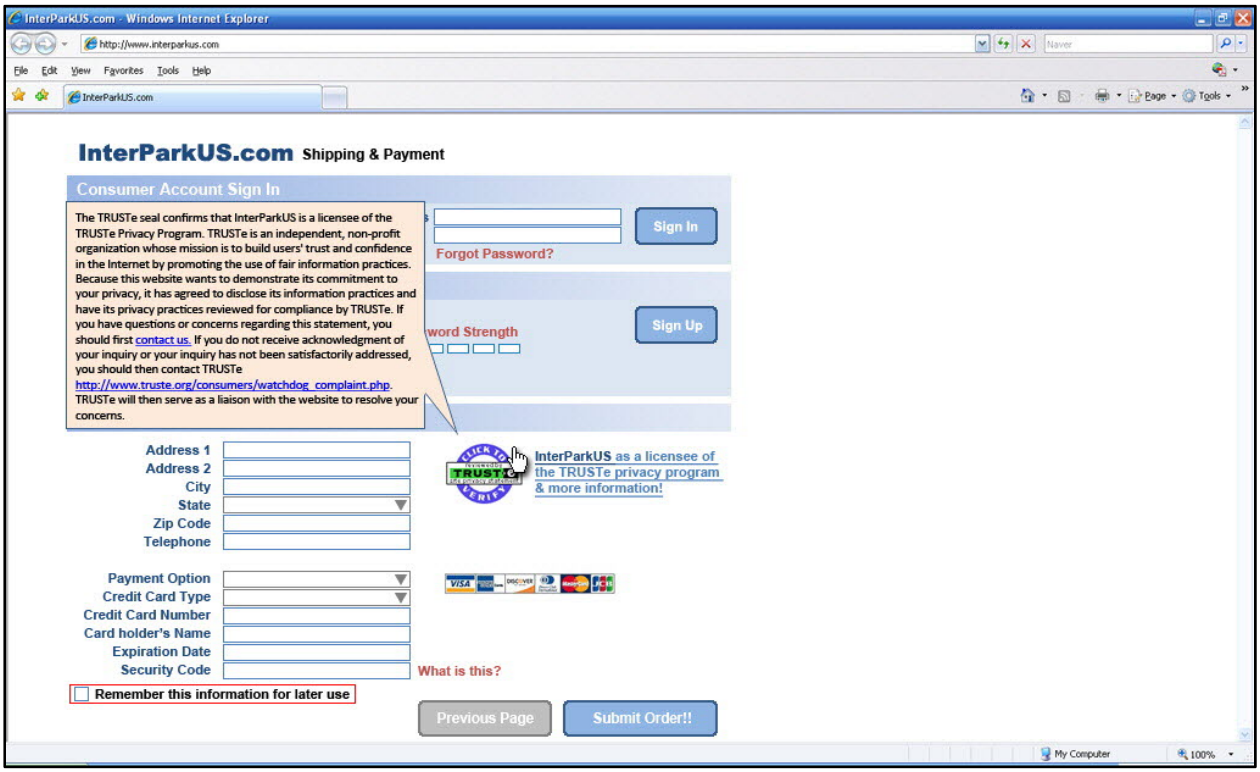
Contact:
Shelly J. Smith
ssmith@joslyn.com
223 North Street,
Indianapolis,
United States

Now, please ASSUME that you are considering buying a pair of RUNNING SHORTS on the Joslyn.com website. If you click the "check out now" button, the following order page will be loaded:

** Note: In order to complete their purchases, visitors need to REGISTER on the Joslyn.com website by offering basic personal information (e-mail address and first/last names). While completing their order, visitors can SAVE their delivery and payment information for later use by clicking the check box below ("Remember this information for later use").*



** Note: When you put the mouse pointer on the TRUSTe seal, the information regarding TRUSTe appears as follows:*



Please answer the following questions below.

Based on your past online experience,

1. Joslyn.com seems to provide reliable products and services to its customers.

1 — Strongly Disagree ——— 7 — Strongly Agree

2. Joslyn.com seems to offer secure transactions.

1 — Strongly Disagree ——— 7 — Strongly Agree

3. Overall, I can trust Joslyn.com

1 — Strongly Disagree ——— 7 — Strongly Agree

Based on your past online experience,

4. Joslyn.com seems to track your online navigation and clicking behavior.

1 — Very Unlikely ——— 7 — Very Likely

5. Joslyn.com seems to collect personal information from you.

1 — Very Unlikely ——— 7 — Very Likely

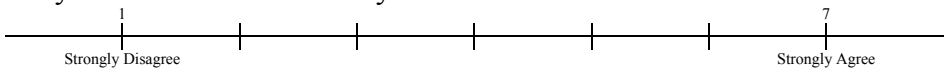
6. Joslyn.com seems to share personal information with third parties.

1 — Very Unlikely ——— 7 — Very Likely

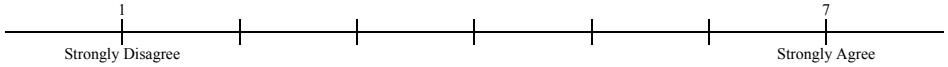
[PART 5]

Please answer the questions below.

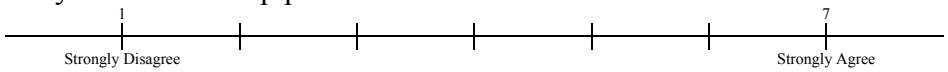
1. Joslyn.com seems trustworthy.



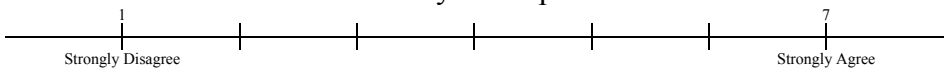
2. I trust Joslyn.com to keep my best interests in mind.



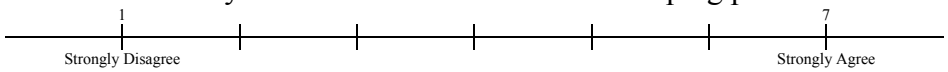
3. Joslyn.com will keep promises it makes to me.



4. I believe the information that Joslyn.com provides me.

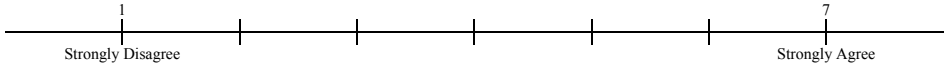


5. It seems that Joslyn.com wants to be known for keeping promises and commitments.

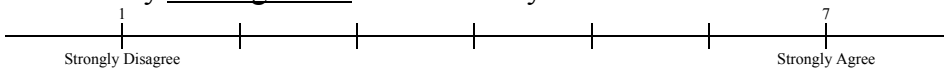


Please answer the questions below.

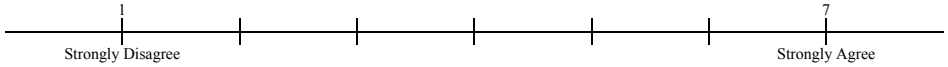
6. I would register on the Joslyn.com website.



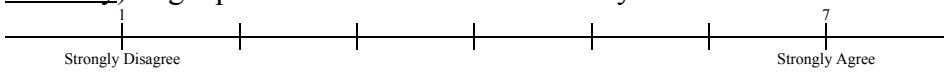
7. I would buy running shorts from the Joslyn.com website.



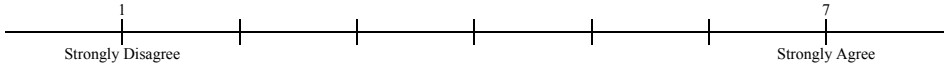
8. I would allow Joslyn.com to remember my delivery and payment information for later use.



9. I would provide some additional information (e.g., date of birth, product preference, and ethnicity) to get personalized services from Joslyn.com.

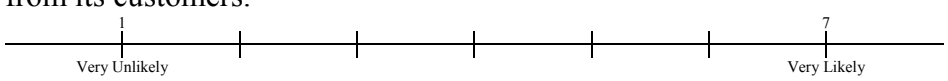


10. Overall, I am comfortable providing Joslyn.com with my personal and financial information.

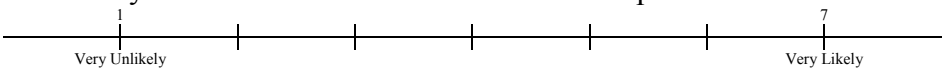


Based on your past online shopping experience, it is likely that…

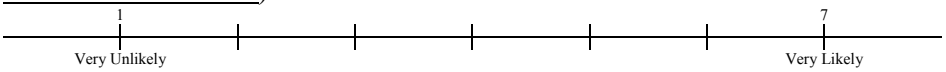
11. Joslyn.com will disclose their information practices (e.g., what information the website collects and how the website uses the information) before collecting personal information from its customers.



12. Joslyn.com will provide its customers with choices as to how their personal information is used beyond the use for which the information provided.

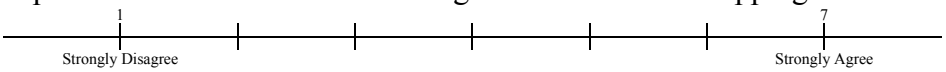


13. Joslyn.com will offer customers reasonable access to the information the website has collected about them (e.g., a reasonable opportunity to review the information and to correct inaccuracies).

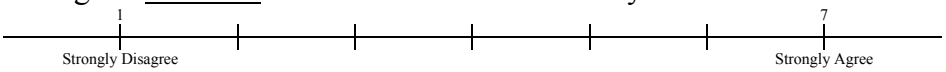


[Seal Condition Only] Please answer the questions below.

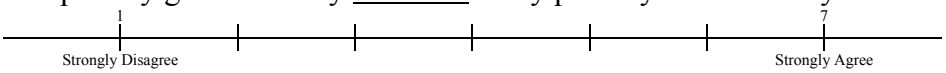
14. The presence of the TRUSTe seal representing the privacy policy of Joslyn.com is expected to contribute to a lessening of risk of online shopping.



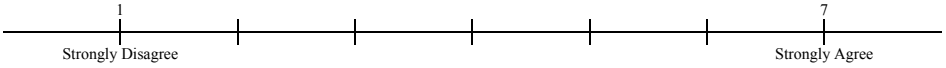
15. Seeing the TRUSTe seal assures me that the Joslyn.com website is safe.



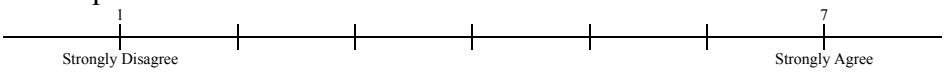
16. The privacy guaranteed by TRUSTe is my primary reason to buy.



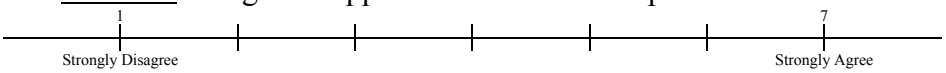
17. The statement promising a discretionary use of private information would increases the credibility of Joslyn.com.



18. Because Joslyn.com is certified by TRUSTe, whether Joslyn.com is well known becomes less important.



19. The TRUSTe seal gives support to the trust buildup.

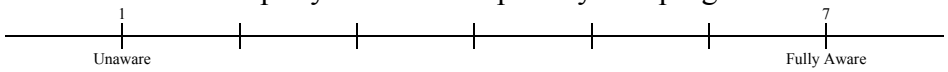


[PART 6]

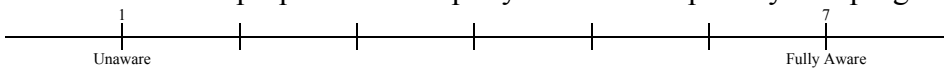
The next few questions are asking about how familiar you are with third-party certification privacy seal programs.

** Note: Third-party certification privacy seal programs have been developed as a means of self-regulation by the e-commerce industry in an effort to reduce consumers' concerns about privacy when dealing with online retailers.*

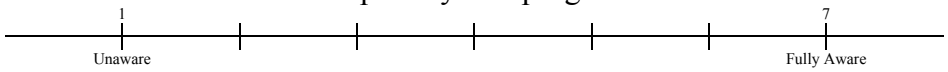
1. I am aware of third-party certification privacy seal programs.



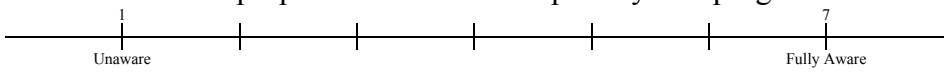
2. I am aware of the purpose of third-party certification privacy seal programs.



3. I am aware of the TRUSTe privacy seal program.

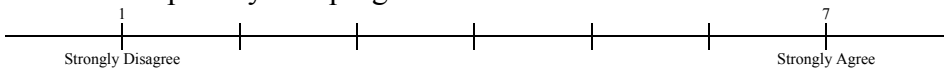


4. I am aware of the purpose of the TRUSTe privacy seal program.

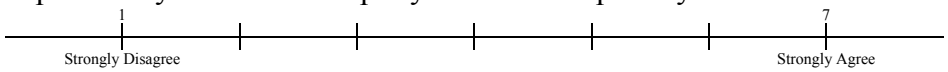


Please answer the questions below.

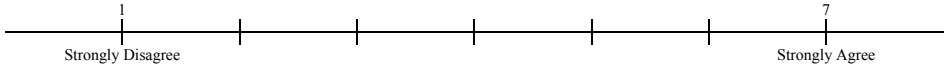
5. I do NOT pay much attention to whether an online retailer is certified by a third-party certification privacy seal program or not.



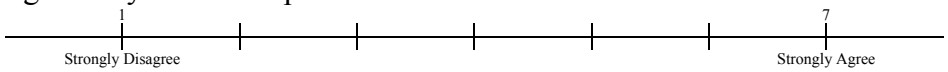
6. I specifically look for third-party certification privacy seals on websites.



7. I generally have faith in third-party certification privacy seals.

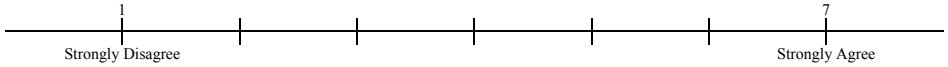


8. I generally trust third parties.

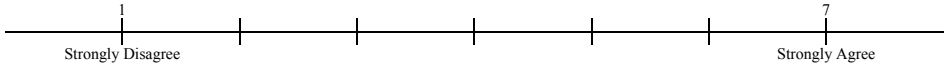


Please answer the questions below.

9. I am sensitive about the way online companies handle my personal information.

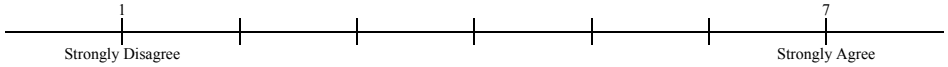


10. I am concerned that online companies are collecting too much personal information about me.

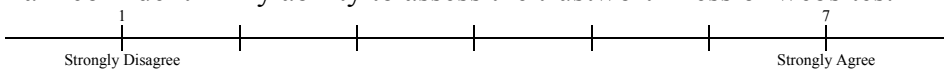


Please answer the questions below.

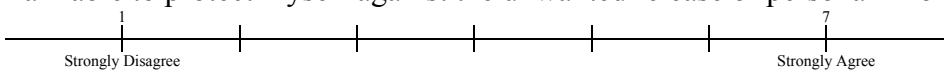
11. I consider myself to be quite knowledgeable about the Internet in general.



12. I am confident in my ability to assess the trustworthiness of websites.



13. I am able to protect myself against the unwanted release of personal information.



[PART 7]

Demographics

1. What is your gender
   1) Female
   2) Male

2. To what age group do you belong?
   1) 18 – 24
   2) 25 – 34
   3) 35 – 59
   4) 60 or older

The following information will be used for giving you extra credit only at the discretion of your professor.

3. Your full name (Last, First)
4. Your course through which this survey is distributed (e.g., ADPR 0000)
5. Name of your course professor (Last, First)

This concludes the survey.
Your participation will be reported to your professor.
Please click the "done" button below; it will lead you to the survey homepage.
Thank you for your participation.