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# Understanding Consumer Trust in Online Purchase Processes: An Experimental Investigation

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## Abstract

*Consumer dropouts during the purchase process represent a critical challenge in e-commerce. While many individuals use retailer websites mainly for product searches and information gathering, a significant number of online shoppers often abandon their shopping carts somewhere in their purchase process. Hence, it is essential to investigate the customer's exit from a website along a general purchase process longitudinally. Prior research has shown the lack of trust to be a critical obstacle inhibiting online transactions. However, few (if any) studies have examined the relationships between trust and consumer dropouts. This study investigates such relationships by a multi-stage online purchase process derived from a generic consumer decision process. We examine the trust-related considerations pertinent to each stage of the purchase process, with particular focus on prominent trust antecedents. Based on our analysis of the relationships between trust and consumer dropouts, we develop hypotheses specific to each purchase stage and empirically test them using the responses of 178 subjects who voluntarily participated in a controlled experiment. Overall, our results suggest that the customer dropout rate increases as the purchase process progresses, and that trust is more significant to the dropout decision in later stages of the purchase process.*

**Keywords:** E-commerce, Trust, Consumer dropout, Consumer decision process

## 1. Introduction

The domestic online sales in the U.S. reached US\$17.6 billion in the third quarter of 2004, representing a 23.8% increase from the same quarter of 2003 (U.S. Census Bureau). Most industry analysts and online vendors consider such fast-growing figures only the tip of the iceberg, especially when comparing to the total revenues of conventional (offline) sales. In 2003, the monetary amount of the Internet-based transactions accounted for 1.6% of the total sales in the U.S. Statistics show that over 90% of Internet users have visited retail websites, but most of them have decided not to transact on these websites. Silverstein et al. (2001) report that a considerable portion of the consumers they interviewed (between 20% and 90%) had not completed the transactions; i.e., abandoning their shopping carts and existing the websites. Another study estimates that 65% of the online visitors would abandon shopping carts after their initial navigations of a website (Raymond 2001).

Consumer trust has been considered a critical foundation of e-commerce (Keen 1999).

According to Hoffman et al. (1999), such trust would affect e-commerce activities in a prominent and significant fashion. The collective findings from several recent studies suggest that trust can significantly increase individuals' intentions for making online purchases (Gefen et al. 2003; McKnight et al. 2002; Gefen 2000; Jarvenpaa et al. 2000). Reichheld and Schefter (2000) as well as Jarvenpaa and Tractinsky (1999) report that consumers tend to exit websites that they do not feel trustworthy. However, the relationships between trust and customer dropouts online have received little research attention.

In this study, we use a consumer decision process (Engel et al. 1995) to model the general online purchase process, and then to investigate key antecedents affecting the consumer's trust at each stage of the purchase process. Based on our analysis of such relationships, we develop specific hypotheses and empirically test them using a controlled experiment that involves 178 undergraduate student subjects. According to our analysis results, the customer dropout rate increases as the purchase process progresses. In addition, trust appears more significant to the dropout decision in later stages of the purchase process.

## **2. Research Framework**

Trust has been a subject of interest to several research communities that include psychology (Rotter 1971; Rempel et al. 1985), sociology (Zucker 1986), management (McKnight et al. 1998; Mayer et al. 1995), and information systems (Piccoli & Ives 2003; Jarvenpaa et al. 1998). The conceptualization of trust is challenging and has been analyzed from different perspectives. In e-commerce, trust is often considered as the general beliefs about an online vendor (Gefen et al. 2003; McKnight et al. 2002; Jarvenpaa et al. 2000). Alternative models of trust have been proposed and tested, and the cumulating empirical evidences suggest that trust has profound effects on online business activities, directly and indirectly (Pavlou and Gefen 2004; Heijden et al. 2003; Pavlou 2001; Jarvenpaa et al. 2000). Congruent with the discussions by relevant prior research (such as Jarvenpaa et al. 2000; Kumar et al. 1995), we define trust as "a belief that the behavior of others is dependable." Previous research of online trust has identified some of the important antecedents (McKnight et al. 1998; Mayer et al. 1995; Jarvenpaa et al. 2000; Gefen et al. 2003) that are often assumed invariable with respect to the online purchase process. In contrast, we posit that of the salient trust antecedents emphasized by individuals visiting a retail website may evolve in the purchase process. This suggests their exits from the website at various stages of the purchase process can be partially explained by different trust considerations.

We adopt a consumer decision process (Engel et al. 1995) to model the general online purchase process consisting of several distinct stages. This allows a detailed analysis of customer dropouts with valuable insights into their decisions not to complete a transaction online. In this study, the general online purchase process is comprised of four stages: need recognition, information search, alternative evaluation, and purchase. Following this process, we then investigate the relationships between customer dropouts and the individual's trust in an online vendor, with particular focus on identifying key trust antecedents for each stage of the purchase process.

### **3. Research Hypotheses**

In this section, we analyze key trust antecedents and then identify the salient antecedents in each stage of the online purchase process.

#### ***3.1 Trust Antecedents***

Zucker (1986) suggests three modes of trust building: institutional-based, process-based and characteristic-based. In institutional-based trust building, trust is closely associated with social structures, such as third-party assurance, legal system or professional association (Kim et al., 2004). McKnight et al. (1998) identify two essential dimensions for building institutional-based trust: structural assurance and situational normality. The former refers to the belief that the structures (e.g., guarantee, regulation, legal recourse, and safeguard) are implemented in an institutional environment to promote success (Shapiro 1987), whereas the latter means an assessment on whether the transaction will be a success, based on the degree to which the environment appears to be proper (Lweis and Weigert 1985) or customary (Baier 1986). Prior studies (McKnight et al. 2002; Gefen et al. 2003; Pavlou and Gefen 2004; Kim et al. 2004) have shown key antecedents of institutional-based trust salient in e-commerce and affecting individuals' decisions to purchase online.

Process-based trust building corresponds to the experience of past and expected exchanges in the future. Prior experience provides a basis of trust (Hosmer 1995; Kumar et al. 1995). Luhmann (1979) suggests that familiarity can reduce social uncertainty, typically through increased understanding of what is happening right now. In e-commerce, familiarity reduces complexity through an understanding of how to inquire different products on a website and the associated procedures (Gefen 2000). According to Hosmer (1995), trust can also be built by a calculative process, a subjective cost-benefit analysis of situations when another party cheats or cooperates in a relationship (Buckley and Casson 1998; Shapiro et al. 1992; Lewicki and Bunker 1995). The antecedents of calculative-based trust have deterrence effects on any involving party who may choose not to engage in opportunistic behaviors likely to risk their reputations and trustworthiness (Shapiro et al. 1992). In an online purchase process, visitors may trust an online vendor more when they believe that the vendor has more to lose than to gain by behaving dishonestly (Gefen et al. 2003).

Similar to the process-based antecedents, the characteristic-based antecedents are trust building sources at the individual level, but perhaps more personal. Disposition to trust (or trust propensity) is the personal tendency to be willing to depend on others (McKnight et al. 2002; Ridings et al. 2002; Mayer et al. 1995). Prior research has identified trust propensity is essential for building a new relationship, but its importance may decrease with additional interactions with the trusted party (McKnight et al. 1998; Rotter 1971). When individuals have no prior knowledge about or interaction with an online vendor, disposition to trust can significantly affect their initial trust in the vendor (Reichheld and Scheffer 2000).

Luhmann (1979) suggests that trust can be affected by the functioning of a system implemented by the trusted party. Kumar (1996) comment that well explained and easily

understood processes are effective for creating trust in business transactions. In e-commerce, most of the interactions between a visitor and a vendor are through a website. Therefore, the ease of use of a website as perceived by visitors may convey the vendor's commitment to and efforts for ensuring satisfactory customer experiences (Gefen et al. 2003). Koufaris and Hampton-Sosa (2004) and Gefen et al. (2003) have shown that the perceived ease of use of a website has significant, positive effect on visitor's trust in the online vendor.

### ***3.2 Hypotheses in Need Recognition Stage***

In this study, we focus on "new customers"; i.e., those without any prior interactions with the online vendor. In need recognition stage, new consumers have not yet visited the website and have no social cues or experience with the online vendor. While no specific trusted party is involved in this stage, an individual's prior experience with or knowledge about similar websites can provide a basis to trust (Doney et al. 1998). Of particular importance is the individual's familiarity with the general online purchase procedure before visiting a new website. If an individual has prior online transaction experience or has attempted to make purchases from another website, he or she can derive a concrete expectation from such experiences or attempts (Gulati 1995; Blau 1964). As a result, when an individual has a need for and a relatively defined expectation of online shopping, he or she is likely to visit an unknown retail website to search products that can fulfill the need.

Disposition to trust is also relevant in the need recognition stage because it involves a personal tendency to be willing to rely on others (McKnight 1998). This disposition is a trust "credit" given to others before actual experiences can provide a more rational interpretation (Gefen et al. 2003). Disposition to trust exists even when visitors have no knowledge about the online vendor. An individual with high disposition of trust is less likely to refuse visiting a "new website" to search for products when he or she has a need for making a purchase. Accordingly, we tested the following hypotheses in the need recognition stage.

- H1: The greater the disposition to trust an individual has towards an online vendor, the more likely he or she will be willing to engage in an online purchase process.*
- H2: The greater the familiarity an individual has with online purchases, the more likely he or she will be willing to engage in an online purchase process.*

### ***3.3 Hypotheses in Information Search Stage***

In this stage, visitors search for products to fulfill their needs. In general, individuals would find a website easy to navigate when they are able to locate particular products without any hassle. Luhmann (1979) suggests that trust can be considerably affected by the functions of a system implemented by the trusted party. Accordingly, the perceived ease of use of a website is expected to have significant effects on the visitor's trust in an online vendor. When interacting with a website, an individual's prior experience or knowledge of similar websites may also influence on his or her expectation of the website currently visited. By analyzing the current situation as well as the prior experience, the individual can assess whether this website is considered to be normal with respect to the specifics anticipated (McKnight et al. 1998). If a website requires visitors to perform uncommon tasks or to complete a procedure in an unexpected way, they will be more inclined to not trusting the vendor (Gefen et al.

2003). Hence, situational normality, in terms of the appearance of a website's interfaces or its functionality/process for information search, is critical to the trust-building in the information search stage. Therefore, we tested the following hypotheses.

*H3: The greater the ease of use of a website as perceived by visitors, the more likely they will trust the online vendor.*

*H4: The greater the situational normality of a website as perceived by visitors, the more likely they will trust the online vendor.*

Disposition to trust affects a new relationship (Ridings et al. 2002; Mayer et al. 1995). Typically, individuals encounter a new website in the information search stage. An individual may interact with a website for different purposes, such as searching for products, submitting feedbacks, subscribing to product news, or placing an order. The focus of this stage is product search. In this vein, the familiarity with online purchases and perceived ease of use of the website are important. Therefore, we tested the following hypotheses.

*H5: The greater the disposition to trust an individual has towards an online vendor, the more likely he or she will trust the vendor.*

*H6: A visitors' familiarity with online purchases has a less significant effect on his or her trust in an online vendor than the perceived ease of use of a website as well as the perceived situational normality.*

Prior research has shown that an individual's trust in an online vendor significantly affects his or her intention to purchase on its website (Gefen et al. 2003; McKnight et al. 2002; Gefen 2000; Jarvenpaa et al. 2000). Purchase intention often emerges and is strengthened (or weakened) in the alternative evaluation stage. An individual's trust in an online vendor may affect his or her decision on whether or not to proceed to the alternative evaluation stage. Thus, we tested the following hypothesis.

*H7: The greater the trust an individual has in an online vendor, the more likely he or she will continue with the purchase process.*

### **3.4 Hypotheses in Alternative Evaluation Stage**

Alternative evaluation involves comparisons among brands or models identified in the information search stage, based on desirable standards or preferred specifications and features. Individuals often value such safeguards as security mechanisms, refund policies, and third-party assurance when they consider making purchases on a website. Structural assurance is an important in the alternative evaluation stage and may be the most significant trust antecedent among those pertinent to the earlier stages of the purchase process. Accordingly, we tested the following hypothesis.

*H8: The greater the structural assurance of a website as perceived by visitors, the more likely they will trust the online vendor.*

*H9: The perceived ease of use of a website has a less significant effect on a visitor's trust in an online vendor than the perceived structural assurance.*

*H10: The perceived situational normality of a website has a less significant effect on a visitor's trust in an online vendor than the perceived structural assurance.*

*H11: The disposition to trust of a visitor has a less significant effect on his or her trust in the online vendor than the perceived structural assurance.*

*H12: An individual's familiarity with online purchases has a less significant effect on his or her trust in an online vendor than the perceived structural assurance.*

When advancing to the alternative evaluation stage, visitors would have intentions to purchase from the website. Prior research has suggested an individual's trust in an online vendor is critical to his or her purchase intention, such as Gefen et al. (2003), McKnight et al. (2002), Gefen (2000), and Jarvenpaa et al. (2000). Thus, we tested the following hypothesis.

*H13: The greater the trust an individual has in an online vendor, the more likely he or she will be willing to further engage in the purchase process.*

### ***3.5 Hypotheses in Purchase Stage***

After comparing the alternative products, an individual then decides whether or not to make a purchase; and if so, which product? Most websites requires an individual to provide payment and delivery information (such as payment method and mailing address). Visitors may have concerns about issues surrounding information privacy as well as unauthorized access to and use of their provided information, such as credit card number (Smith et al. 1996; Stewart and Segars 2002). From a rationale aspect, visitors would weigh the potential risks and expected benefits before providing the information required for completing the purchase. In this case, the calculative-based belief may be the most important trust antecedent in the purchase stage. Therefore, we tested the following hypotheses.

*H14: The stronger a visitor's calculative-based belief of a website, the more likely he or she will trust the online vendor.*

*H15: The structural assurance of a website as perceived by visitors has a less significant effect on their trust in the online vendor than the calculative-based belief.*

*H16: The ease of use of a website as perceived by visitors has a less significant effect on their trust in the online vendor than the calculative-based belief.*

*H17: The situational normality of a website as perceived by visitors has a less significant effect on their trust in the online vendor than the calculative-based belief.*

*H18: The disposition to trust of an individual has a less significant effect on his or her trust in the online vendor than the calculative-based belief.*

*H19: An individual's familiarity with online purchases has a less significant effect on his or her trust in the online vendor than the calculative-based belief.*

According to Luhmann (1979), trust is important for maintaining a relationship in activities characterized by considerable social uncertainty and risks. Prior research has shown that trust can reduce the risks and uncertainty perceived by individuals (Gefen 2000; Jarvenpaa et al. 2000). As a result, they more willing to disclose personal information when they trust the online vendor (Xu et al. 2003). Therefore, we tested the following hypothesis.

*H20: The greater the trust an individual has on an online vendor, the more likely he or she is willing to complete a transaction online.*

#### 4. Research Methodology

We tested the hypotheses using a controlled experiment that involved a total of 178 undergraduate students at a major university in Hong Kong. By design, the subjects needed a mobile phone and were asked whether they were willing to search and plausibly purchase a phone from a designated website. Our choice of product was primarily based on the salience of mobile phones in Hong Kong. As a result, our subjects were reasonably familiar with different mobile phones and were able to relate to the experiment task. Our choice was also advantageous because of the product space was more manageable than that of other products (such as CDs or books). We included a fairly comprehensive selection of mobile phones from which each subject could easily find one he or she liked. Our subjects proceeded in the purchase process, following the four stages described. We collected the subjects' evaluative responses immediately after they completed a stage and was decided whether or not to continue with the purchase process. All question items were specifically designed for assessing their trust-related evaluations with respect to the stage just completed. After completing the question items, each subject could continue or exit the website. We had conducted a pilot study to validate our instrument and, at the same time, fine-tune our data collection procedure and website design. The subjects participating in the pilot study were excluded from the subsequent experiment.

The question items used to measure each construct examined in the study were mostly adapted from related prior studies. Our use of the previously validated items contributed to the reliability and validity of our instrument which used a seven-point Likert scale. Specifically, disposition to trust was measured by three items adapted from Pavlou and Gefen (2004). Familiarity with online purchase was measured by three items adapted from Gefen (2000). Perceived ease of use was measured by five items that were adapted from Gefen et al. (2003) and largely consistent with those used by Davis (1989). Situational normality as well as calculative-based belief was measured by three items adapted from Gefen et al. (2003), respectively. The calculative-based belief was measured by four items adapted from McKnight et al. (2002). Trust in an online vendor, our dependent variable, was measured by five items adapted from McKnight et al. (2002).

We analyzed the dropout rate in each purchase stage studied. As shown in Table 1, our results show that our subjects exited the experiment in different stages of the purchase process, a finding consistent with our anticipation.

<b>Stage</b>	<b>Continue with the Process</b> (percentage of stage total)	<b>Exit the Experiment</b> (percentage of stage total)	<b>Total</b>
Need Recognition	166 (93%)	12 (7%)	178
Information Search	133 (80%)	33 (20%)	166
Alternative Evaluation	100 (75%)	33 (25%)	133
Purchase	19 (19%)	81 (81%)	100

Table 1: Continue / Dropout Rates

We performed linear regression analyses to test our hypotheses, thereby examining whether the hypothesized trust antecedents had significant effects on subjects' trust-related assessments in different stages. We also performed a logistic regression analysis to investigate whether trust in the online vendor had a significant effect in subjects' decision to proceed with the purchase process or exit the experiment. Table 2 summarizes the results of the data analysis.

Stage	Hypothesis	Independent Variable	Dependent Variable	Significance	Hypothesis Supported
Need Recognition	H1	<b>DTT</b>	C/D	No	No
	H2	<b>FAM</b>		No	No
Information Search	H3	<b>PEOU</b>	TRUST	<b>Yes (p&lt;0.05)</b>	<b>Yes</b>
	H4	<b>SN</b>		No	No
	H5	<b>DTT</b>		<b>Yes (p&lt;0.001)</b>	<b>Yes</b>
	H6	<b>FAM</b>		No	<b>Yes</b>
	H7	<b>TRUST</b>	C/D	No	<b>No</b>
Alternative Evaluation	H8	<b>SA</b>	TRUST	<b>Yes (p&lt;0.001)</b>	<b>Yes</b>
	H9	<b>PEOU</b>		<b>Yes (p&lt;0.05)</b>	<b>Yes</b>
	H10	<b>SN</b>		No	<b>Yes</b>
	H11	<b>DTT</b>		No	<b>Yes</b>
	H12	<b>FAM</b>		No	<b>Yes</b>
	H13	<b>TRUST</b>	C/D	<b>Yes (p&lt;0.01)</b>	<b>Yes</b>
Purchase	H14	<b>CAL</b>	TRUST	<b>Yes (p&lt;0.001)</b>	<b>Yes</b>
	H15	<b>SA</b>		<b>Yes (p&lt;0.001)</b>	<b>Yes</b>
	H16	<b>PEOU</b>		No	<b>Yes</b>
	H17	<b>SN</b>		<b>Yes (p&lt;0.05)</b>	<b>Yes</b>
	H18	<b>DTT</b>		No	<b>Yes</b>
	H19	<b>FAM</b>		No	<b>Yes</b>
	H20	<b>TRUST</b>	C/D	No	<b>No</b>

FAM: Familiarity with online purchase; DTT: Disposition to trust; PEOU: Perceived ease of use; SN: Situational normality; SA: Structural assurance; CAL: Calculative-based belief; TRUST: Trust in online vendor; CD: Continue/dropout decision.

Table 2: Hypothesis Testing Results

In the need recognition stage, neither disposition to trust nor familiarity with online purchases appeared to significantly affect the subject's decision on whether or not to visit a new website. This finding may suggest online purchase is not a novel concept to our subjects. When an individual already knows what to expect from a retailer website, the familiarity with online purchases may then become less important in his or her decision on whether or not to visit a new retailer website. The insignificance of disposition to trust observed might be partially explained by the subject's considering a retailer website more efficient and convenient for accessing product information than other channels. This is particularly important when visitors have specific products, brands or models in mind. In light of the benefits such as time

savings and convenience (Bhatnagar et al. 2000), an individual is likely to visit a website potentially capable of meeting his or her needs, even though online vendors may be generally perceived as not reliable.

In the information search stage, disposition to trust seemed to have significant effects on the subject's trust in the online vendor, a finding consistent with those reported by prior research examining trust building in initial stages of a relationship (McKnight et al. 1998; Mayer et al. 1995; Rotter 1971). Perceived ease of use was positively associated with trust. This result is congruent with the findings from prior studies, including Koufaris and Hampton-Sosa (2004) and Gefen et al. (2003), and implies that an individual's trust is affected by the ease or the difficulty in using the website locate products of interest to him or her. However, situational normality did not affect trust significantly. A plausible explanation may be as follow. Situational normality refers to an individuals' assessment of the degree to which a situation appears normal or customary (Baier 1986). To support visitors' product searches, most online vendors do not deviate from the "norms" by making their websites appearing uncustomary to visitors. Many websites provide search support via a search engine that is capable of locating products relevant in relation to the user-provided search words. A website can customize its presentation of the search results; but, this is more related to the perceived ease of use than situational normality. In addition, the subject's trust in the online vendor did not significantly affect his or her decision on whether to proceed with the purchase process or exit the experiment. Visitors understand that they are more likely to find products that satisfy their needs if they continue with the process. They may also consider nothing significant to be sacrificed when advancing to the alternative evaluation stage simply because they have not provided any personal or sensitive information. As a result, their trust in the vendor is not critical to their decision making.

In the alternative evaluation stage, disposition to trust became insignificant to the subject's trust in the online vendor. This result is consistent with the findings of prior research; i.e., this disposition becoming less important when visitors are more affected by their interactions with the trusted party (McKnight et al. 1998; Rotter 1971). Prior e-commerce research has offered limited discussions concerning when disposition to trust is likely to become less significant to an individual's trust in the vendor. In this connection, our result provides some empirical evidence for addressing this question. Adversely, perceived ease of use appears to be more significant to trust partially because the additional information accessed by subjects enables their product assessments and selections, including comparative product rating, user testimonials or feedback, and detailed product specifications. The more information an individual reviews, the easier his or her evaluation process becomes. Visitors may consider an online vendor that does not intend to hide information from them more trustworthy than those do so (Gefen et al. 2003). We hypothesize that structural assurance significantly affects trust. This implies that consumers are cautious about the safeguards implemented on the website before making a purchase decision. In the alternative evaluation stage, an individual's trust can significantly affects his or her decision on whether to advance to the next purchase stage. When reaching this stage, a visitor is considered to have some intention

for making a purchase online. Our result is consistent with the findings of prior studies which suggest trust to be a significant determinant of the intention to purchase (Gefen et al. 2003; McKnight et al. 2002; Gefen 2000; Jarvenpaa et al. 2000).

In the purchase stage, structural assurance was found to be important for trust building. The structural assurances or safeguards provide a complex institutional environment in the purchase stage. Several parties are involved, including the vendor, a certificate authority, and a compliance monitoring organization. Consumers may assess situational normality based on their knowledge about the (trusted) third parties and how they collaborate with the online vendor. The institutional environment becomes increasingly more complicated and important in the purchase stage than in earlier stages. Individuals may be concerned about the misuse or unauthorized distribution of their provided information by the vendor. They may weigh the costs and benefits of the vendor for pursuing such opportunistic behaviors. In this light, the calculative-based belief becomes important. Last but not least, our results suggest that an individual probably will complete a transaction when he or she trusts the online vendor. That is, visitors are likely to make purchases from a website when they are satisfied with the assurances or safeguards of the website, comfortable with the transaction environment, and expecting their provided information to be used in a proper and secure manner.

Cautions should be taken when generalizing our results. Our subjects are university students who use the Internet intensively on a frequent basis. Thus, our results might not be directly applicable to those not particularly technology savvy or only using the Internet occasionally. Our experiment focuses on a particular product (i.e., mobile phone); thus, our analysis results may not be generalizable to other products. This is particularly relevant when considering our subjects' relatively young age and their interest in the latest mobile phones. As a consequence, our results may considerably differ had we used subjects so enthusiastic about mobile phones. Another source of limitations is our irreversible experiment procedure which prohibits subjects from returning to a previously completed stage. This is different from real-world online purchases which allow an individual to return to previous stages recursively. The irreversible design allows us to examine the relationships between trust and customer dropouts in each stage without ambiguity, but it inevitably constrain the applicability of our findings. Prior research has shown trust to be transferable (Stewart 2003; Uzzi 1996). In this light, we cannot comfortably rule out the trust observed in the experiment reflects the subjects' trust in the investigators who affiliate with a major and reputable university, in addition to the trust in the online vendor. The suspected transfer of trust might become prominent in the purchase stage; that is, subjects completed the purchase process even though they considered the online vendor not particularly trustworthy.

## **5. Summary**

The current research responds to the need for examining the role of trust in online shopping. While most previous research examines trust and its antecedents by considering the online purchase process as a whole, this study investigates trust and its antecedents at the specific stages in the purchase process. Following a prevailing consumer decision process, we model

the general online purchase process consisting of multiple distinct stages. Our investigation contributes to our better understanding of the relationship between trust-related considerations and the individual's decision making along the multi-stage purchase process. While previous research suggests that disposition to trust becomes less important when people are influenced by the interaction in the relationship (McKnight et al. 1998; Rotter 1971), our study shows that the effect of disposition to trust on the consumer's trust may diminish considerably beyond the information search stage. Towards that, continued investigations of returned customers are important, particularly those targeting a comparative analysis that can shed light on the genuine significance of disposition to trust. Such investigations should also emphasize on the linkage between trust and information privacy by focusing on such antecedents as situational normality, structural assurance, and calculative-based belief.

Recent studies have suggested consumers tend to search online but make purchase offline (such as BIGresearch 2005). According to our analysis, individuals are more likely to complete a transaction online when they trust the vendor. Interestingly, the impact of such trusts appears to be less significant before the evaluation stage. This finding suggests the need for additional research to examine the particular stages in the purchase where the customer dropout significantly influences the intention to purchase offline as well as the relationship between trust and the intention for offline purchases.

Most shoppers proceed with product search and evaluation in an iterative fashion, online and offline. Further research can be done to investigate if the trust level changes when consumers perform replicated processes. Finally, the last stage of the consumer decision process model, post-purchase, is not within the scope of this study. We believe disposition to trust and familiarity with online purchase process refreshes after the first visit. In fact, research has been done to investigate the relationships between trust, pre-, and post-purchase intention (Kim et al. 2003). These two trust antecedents can be considered in similar future research as well.

Our findings suggest that perceived ease of use is important to trust building in early stages of online purchase; i.e., information search and alternative evaluation. Imaginably, perceived ease of use can be affected by search support (such as via a search engine), the specificity of user-provided search input, the effectiveness of search result presentation, and website design (including the structure for organizing different products and the hyperlinks connecting them). To classify its products, an online vendor may benefit by understanding how most individuals would proceed with their product searches on its website and what website functionality they need. As shown by our findings, perceived ease of use affects the individual's trust in an online vendor who, in turn, should provides easily searchable and accessible product information on its website for high benevolence (Kumar et al. 1995). Information search is a critical initial activity common to most online purchases. Vendors usually have a substantial control of the information search support and therefore should study typical search patterns and methods by the visitors to their websites and provide them with adequate design and

functionality accordingly.

In later stages of the purchase process (i.e., alternative evaluation and purchase), structural assurance becomes an increasingly critical trust antecedent. Prior research shows that salient seal programs encourage and facilitate trust building online, especially when visitors recognize such seals (Kimery and McCord 2002; Kovar et al. 2000). Hence, vendors should join prevailing seal programs and place the awarded seals in an easily noticeable position on their websites. Our findings suggest a prominent effect of situational normality in the purchase stage. This may imply that individuals are highly conscious about the institutional environment when they are asked to provide personal information. Many online vendors receive orders around the world; however, most e-seal or certificate programs are not visible or recognized internationally. For example, BBB Online Reliability and Privacy seals ([www.bbb.com](http://www.bbb.com)) are mostly used by merchants in the U.S. and Canada and therefore are not particularly known outside these countries. In light of their international operations, an online vendor should apply for e-seals popular in the specific countries it targets and, better yet, should cooperate with major financial institutions (such as banks and assurance companies) in the targeted countries to ensure the necessary protection and guarantees.

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