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**Building Initial Online Trust: A Social Learning Theory Perspective and
Application on Brick-and-Click Companies**

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Abstract

A customer's trust in an online seller is considered to be an important factor for ecommerce success. The extant research has addressed the question of what online trust is and why some factors such as reputation are helpful to trust building. However, the question of where customers collect information about an online firm to base their trust on has not been addressed. In this study, we investigate different processes through which evidences are collected and trust is built. A framework of four "learning-processes" is proposed based on social learning theory. To demonstrate the utility of the framework, we apply it to the initial online trust building for brick-and-click firms. As a result, four customer experiences are identified to affect the initial perception of the trustworthiness of a firm's online operation, i.e., the experience with the website, the experience with the offline establishment, reputation, and general experience with the Internet. Our results suggest that the social learning theory is a viable tool to understand customer's trust building process. In the context of brick-and-click firms, it helps uncover the significant as well as in significant learning processes. Satisfaction with offline purchase experience is found to be insignificant. This might be due to the lack of integration between online and offline operations. Implications of the study's findings are discussed.

Keywords: Initial online trust, trust building process, social learning theory, brick and click strategy

Building Initial Online Trust: A Social Learning Theory Perspective and Application on Brick-and-Click Companies

INTRODUCTION

According to U.S department of commerce, total e-commerce sales for 2003 were estimated at \$54.9 billion, an increase of 26.3 percent from 2002. For ecommerce to continually succeed, buyer's trust in the seller is argued to play a pivotal role (Gefen 2003). Evidence has confirmed that trust is a significant predictor of the customer's online purchase intention, personal information disclosure, and use of services offered by the vendor (Bhattacharjee 2002; Gefen 2003; Jarvenpaa et al. 2000; McKnight et al. 2002a; Xu et al. 2003).

Initial online trust (IOT) has gained increasing interest in information systems (IS) research community (e.g., Gefen 2003). IOT is the trust a potential customer places on the online vendor before she engages in any trust behavior such as online purchase. IOT is crucial because many claimed ecommerce benefits such as reaching customers in a region where a company does not have local presence are arguably dependent on IOT. Nonetheless, the question remains, how is IOT formed?

The extant research has recognized that trust building is a psychological process. In this process, evidence about a firm, the trustee, is interpreted with respect to the goodwill of the firm, probability of opportunistic behavior by the firm, and its ability to fulfill obligations (Doney and Cannon 1997, 1998). If such reasoning favors the conclusion that a firm can and will fulfill its obligations, the customer's trust is formed. But where does the evidence come from? It is recognized that such evidence is context-dependent and varies at different stages of the dyadic relationship (Bigley and Pearce 1998). For example, trust in government and trust in family members are based on different evidence (Barber 1983). Likewise, trust in a stranger and trust in

a long-standing friend manifest for different reasons (Bigley and Pearce 1998). However, it is not clear where a trustor collects such evidence, i.e., antecedents of trust.

The lack of a systematic approach to identify trust antecedents is reflected in online trust studies. With a focus on the pure-play online company alone, many trust building antecedents such as reputation-like signs (e.g., Pavlou and Gefen 2002), web design factors (e.g., Belanger et al. 2002), and online service quality (e.g., Gefen 2002b) have been identified. However, do these studies capture relevant antecedents in various contexts? For example, in the brick-and-click context, customers who have prior experience with the firm's offline channel and those who do not will have different knowledge of the web store, and consequently, different reasons to trust. Therefore, current research findings may not generalize to the brick-and-click firms because it represents a different context. The current literature pays little attention to brick-and-click firms regarding the issue of customer's online trust.

It is important to find a way to systematically identify the different ways by which customer collects information and form trust perceptions. To this end, our first research question is: *What are different processes through which a trustor collects information and built trust based on this information?* To answer this question, we propose a trust building framework based on social learning theory (SLT). We consider trust building to be a learning process. Four learning processes are identified. To demonstrate the utility of the framework, we apply it to the initial online trust building for brick-and-click firms, because it is an important yet under-investigated area. In search for online-offline synergy, the transference of trust from the offline brand or the company namesake to the online establishment is identified as one of the potential benefits (e.g. Willcocks and Plant 2001). However, to the authors' knowledge, few empirical studies have investigated this phenomenon. How is IOT formed for these firms? Applying our

proposed SLT-based framework to this context, our second research question is: *What are trust building processes for initial online customers of a brick-and-click firm?*

This paper is organized as follows. First, the concepts of trust and initial trust are introduced. We then review the trust building processes proposed in the literature. Afterwards, the social learning theory (SLT) perspective is presented. Based on a framework developed from the SLT perspective, we examine the antecedents of IOT for brick-and-click firms. Corresponding hypotheses are offered. Next, methodology and findings are discussed. Finally, we offer some concluding remarks.

LITERATURE REVIEW ON TRUST

Trust

Trust is generally defined as the “willingness to be vulnerable” when the trustor is dependent on the trustee for some resources or actions (Mayer et al. 1995). Willingness to be vulnerable however does not reflect actual behavior; but rather the intention. McKnight et al. (2002) further delineate the differences among trust belief, trust intention, and trust behavior. It is the trust intention that Mayer et al. define as the “willingness,” while the trust belief is really the perceived trustworthiness of the trustee, i.e., the ability, benevolence and integrity, as Mayer et al. (1995) summarize them. Ability, benevolence, and integrity constitute the three major dimensions of trust (Mayer et al. 1995, McKnight et al. 2002a).

Even though the fine line between belief and intention has been acknowledged, most empirical studies measure perceived trustworthiness as the core trust (e.g. Bhattacharjee 2002; Doney and Cannon 1997; Grazioli and Jarvenpaa 2000; Pavlou and Gefen 2002a). McKnight et al. (2002a) who factor-analyzed trust belief and trust intention items found the second level factor correlation between these two constructs to be 0.86. Jarvenpaa et al. (1998) find the

correlation between them to be around 0.7 to 0.89. Other studies (Gefen 2003; McAllister 1995) that have used items measuring both the belief (e.g., “This company is honest”) and the general trust intention without specifying a specific task (e.g., “I trust this company”) found that they load on a single factor. Not only the boundary between trust belief and trust intention appears ambiguous, but lines among the three aspects of trust belief – ability, benevolence, and integrity – are also fine. Not surprisingly, empirical tests mentioned above in general treat trust as a unidimensional factor. In fact, Bhattacharjee (2002) explicitly tested for dimensionality and favored a unidimensional view. Accordingly, we adopt this consolidated view of trust in our study and define it as the perceived ability, benevolence, and integrity of the trustee. Notice this trust definition is a belief definition. We therefore use trust and perceived trustworthiness interchangeably with a recognition that trustworthiness is highly correlated with trust intention.

Trust is context-dependent and dynamic. As Barber (1983, p.16-17) points out, “whether we have in mind expectations of the persistence of the moral social order, expectations of technically competent performance, or expectations of fiduciary responsibility, we must always specify the social relationship or social system of reference.” The context-dependent nature of trust implies not only the emphasis placed on different aspect of trustworthiness, but also different evidences people use to construe their trust. In fact, our review of empirical studies has shown that the online and offline trust can have different antecedents. Furthermore, trust is by no means a static concept (Tyler and Kramer 1995; Bigley and Pierce 1998). A theory of trust presupposes a theory of time (Luhmann 1979, p.10). Accordingly, the antecedents of trust may also vary at different stages of the relationship.

Initial Online Trust (IOT)

IOT is the initial stage of a customer's trust in a web store. It inherits the essential nature of general trust. Nevertheless, materializing at this specific stage, and in such a specific Internet context, IOT has its special properties as well.

Surprisingly, no robust definition of IOT has emerged. In the context of an offline firm, McKnight et al. (1998, p.473) define initial trust as the trust that surface "when parties first meet or interact." McKnight et al. (1998, p.474) further argue that initial trust between parties will not be based on "any kind of experience with, or firsthand knowledge of, the other party" but rather on "an individual's disposition to trust or on institutional cues that enable one person to trust another without firsthand knowledge." Likewise, Bigley and Pierce (1998, p.410) refer to initial trust as the "trust in an unfamiliar trustee, a relationship in which the actors not yet have credible, meaningful information about, or affective bonds with, each other."

In the online environment, IOT is characterized as the trust a potential customer has on an online vendor when she has no prior experience with that vendor (e.g., McKnight et al. 2002a). Nonetheless, extant literature does not clearly divulge when initial trust starts or what kind of knowledge a trustor may have before this interaction. These issues are relevant because in the online context, several scenarios could emerge. For instance, some customers of a brick-and-click firm may have offline experience with it, while other may not. Winning trust of a first time online customer without offline experience may require a different strategy than convincing an existing offline customer to buy online. Differentiating customers based on their knowledge is the first step to understand their trust. Against this backdrop, in this study, we define IOT as the trust that a potential customer holds towards an online vendor before the first purchase; hence,

IOT is pre-purchase trust. We recognize that before purchase, customers can have different knowledge of the vendor.

Trustworthiness as Expectancy

From the social learning theory (SLT) perspective, perceived trustworthiness, including IOT, can be regarded as expectancy. Rotter's (1954) SLT defines expectancy as "probability held by the individual that a particular reinforcement will occur as a function of a specific behavior on this part in a specific situation" (Rotter 1954, p.107). Rotter (1980a) characterizes interpersonal trust as a kind of *general expectancy* held by an individual that the word, promise, oral or written statement of another individual or group can be relied upon. General expectancy is formed based on experience from many similar situations. Trust in a specific situation is recognized and regarded as a kind of specific expectancy (Rotter 1980a).

Treating trust as expectancy is also consistent with the expectancy theory. The expectancy theory (Vroom 1964) defines expectancy as the likelihood that a particular act will be followed by a particular outcome. Such expectancy is in part determined by individual's ability to control the outcome, and in part determined by external constraints (Campbell et al. 1970). In a purchase context, the trustworthiness can be regarded as an external constraint that determines a buyer's expectancy of success.

The view of trustworthiness as expectancy is echoed in the trust literature as well. According to Mayer et al. (1995, p.712), trust is the "expectation that other will perform a particular action." Likewise, many others (e.g. Doney and Cannon 1997; Schurr and Ozanne 1985) typify trust as the expectation that an individual can be relied on to fulfill obligations.

Treating trustworthiness as expectancy enables us to examine trust building in general, and IOT building in particular from the SLT perspective. Because SLT is a well-established

theory in psychology, and the expectancy formation is one of its main themes, many insights can be drawn from it when we examine trustworthiness. We shall turn to this perspective shortly, but first we offer a review of trust building processes.

Trust Building Processes

How is trust, and especially initial trust, formed? Our review of the literature reveals at least two different perspectives on trust development: the context-dependent perspective and the psychological process perspective.

In considering the context-dependent perspective, Bigley and Pearce (1998) argue that trust can differ for unfamiliar actors, familiar actors, and in the organization of economic transactions. The signs and evidence used to build trust are assumed to be different across these situations. The most systematic treatment of trust context is probably the conceptualization of institution-based trust that highlights the importance of institutional context on trust building. Built on the history of U.S. economy, Zucker (1986) suggests that institutionalization is both a product of trust and a platform to develop trust. Such a view is widely echoed by other researchers in both theoretical discussion and empirical test (e.g., Barber 1983; McKnight et al. 1996). Besides institution-based trust, no method is proposed to identify context-specific trust antecedents. In summary, the context-dependent view tries to answer the question “*what are the context-specific factors that affect trust building?*” Nonetheless, this perspective does not offer a systematic approach to identify those factors for different contexts.

As a representative of the psychological trust building perspective, Doney and Cannon (1997, 1998) identify five cognitive processes of trust development. In the *calculus* process, a trustor calculates the costs and/or rewards for another party to be opportunistic. In the *prediction* process, the trustor forecasts another party’s behavior from historical data. The *capability*

process gauges another party's ability to meet its obligations while the *intentionality* process assesses the other party's goodwill in the exchange. Finally, in the *transference* process, the trustor relies on a third party's definition of another as a basis for defining trust. Most of these processes attempt to explain the formation of trust after some individuating evidences have been collected and answer the question "*how is the trust evidence interpreted?*"

The trust building processes reviewed above have some limitations. The psychological perspective explains how certain signals are processed to predict trustworthiness, but not where such signals are obtained. The context-dependent perspective recognizes the specific nature of each context, but derives no commonalities among different contexts, therefore offers no guidelines to analyze new contexts. In summary, the current literature does not answer a key question, "*through which channels does the trustor get to know the trustee?*"

Answering this question is in fact critical, if we are to offer practitioners guidance on how to manage their trustworthiness in the eyes of trustors. To this end, this study proposes a social learning theory (SLT)-based framework to studying trust building. Based on SLT, for a given context, the evidence-collecting channels, which correspond to the learning processes, are identified. These learning processes produce a set of evidences about the trustee in a given context. Such evidences then undergo psychological reasoning as suggested by Doney and Cannon (1997) to produce cognitive trust belief. Therefore, the learning processes proposed complement the trust building processes identified in the literature to produce an integrated picture of trust building (see Figure 1).

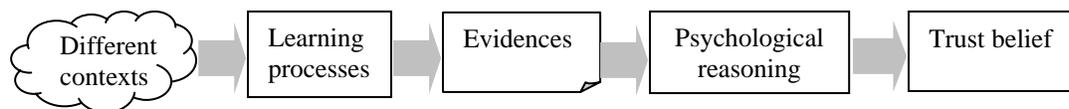


Figure 1. The overall trust building process

SOCIAL LEARNING THEORY PERSPECTIVE ON TRUST BUILDING

Trust Building from the Social Learning Perspective

Rotter's SLT explains why a person chooses a certain course of action when she has a number of possible alternatives available. There are four basic concepts in Rotter's theory (Rotter 1954):

1. Behavior potential – is the likelihood for any given behavior to occur.
2. Expectancy – considered the central concept of SLT, is the probability that a particular reinforcement will occur as a function of a specific behavior in a particular situation.
3. Reinforcement value - is the degree of preference for any reinforcement, if the probability of their occurring were all equal.
4. Psychological situation - emphasizes that all the above factors are subjective perceptions.

Rotter (1960) goes on to treat behavior potential as a function of expectancy and reward (i.e., reinforcement value). Although Rotter (1980a) subsequently applies this theory to trust propensity, and regard it as a type of general expectancy resulting from experiences in interpersonal relationships, further application of this theory in the trust domain has not been explored. Thus, we extend SLT to study the trust relationship between a buyer and a seller. In doing so, we consider the behavior potential as either to-buy or not-to-buy. The reward is the outcome of the purchase. The corresponding expectancy can be regarded as the perceived trustworthiness of the seller in fulfilling its obligations (e.g., on time delivery).

From SLT perspective, trust building process is essentially an expectancy formation process. While Rotter's SLT does not propose any specific mechanism of expectancy learning, Bandura's SLT addresses this issue (Bandura 1977). In Bandura's SLT, behavior and its associated expectation can be learned through direct experience and/or modeling. Learning through direct experience requires the subject to be personally involved in the activity, and realize the consequences of her response, successful or punitive. Modeling is the process of learning by observing others responding to an environment and experiencing certain consequence. Modeling includes both vicarious learning (i.e., observing others) and symbolic

learning (e.g. reading printed material). With respect to people's learning behavior, Bandura (1977) highlights that:

“By observing the different outcomes of their action, they develop hypotheses about which responses are most appropriate in which settings. This acquired information then serves as a guide for future action (p.17) ... *Performance accomplishments* provides the most dependable source of efficacy expectations because they are based on one's own personal experiences. Successes raise mastery expectations; repeated failures lower them, especially if the mishaps occur early in the course of events. (p.81) ... According to social learning theory, modeling influences produce learning principally through their informative function (p.23) ... Many expectations are derived from *vicarious experience*. Seeing others perform threatening activities without adverse consequences can create expectations in observers that they too will eventually succeed if they intensify and persist in their efforts (p.81)” [italics in original].

SLT is in fact not the only theory that proposes the dichotomy of direct and indirect learning. In referring to the social exchange theory, Blau (1964, p.143) comments that “these expectations of social rewards ... are based on the past social experiences of individuals and on the reference standards they have acquired, partly as the result of the benefits they themselves have obtained in the past and partly as the result of learning what benefits others in comparable situations obtain.” Relating to trust building, the trust transference (Doney and Cannon 1997) might be regarded as a type of learning by modeling.

Besides direct experience and modeling, learning can also occur from similar experiences. Rotter (1980a, p.2) posits that “in social learning theory *expectancy in each situation is determined not only by specific experiences in that situation but also, to some varying degree, by experiences in other situations that the individual perceives as similar*” [italics in original]. Experience with a specific situation produces specific expectancy, and the experiences with similar situations collectively form the general expectancy. Both specific expectancy and general expectancy can affect behavior. As Rotter (1971, p.445) highlights, “in social learning

theory, expectancy is a function of a specific expectancy, and a generalized expectancy resulting from the generalization from related experience.”

If we cross-combine these two aspects, namely the directness of experience and the specificity of situation, we can have four combinations: direct experience in the same situation, direct experience in a similar situation, modeling in the same situation, and modeling in a similar situation. These four learning processes constitute the SLT-based framework which we use to explain trust building.

What can be learned through the four processes? The learning outcome can be of two types. First, ultimately, expectancy is formed in each process (e.g. “I know from my friend that the firm is trustworthy”). The expectancies from individual processes collectively produce an aggregated expectancy. Second, some detailed beliefs about the situation (e.g. service quality, store environment etc.), which Rotter termed cognition, can be learned. Such beliefs of situational variables constitute what Rotter calls the psychological situation (Rotter 1980b). These two types of learning outcomes are related. The learned simple cognitions are usually determinants of a more general expectancy. “The simple cognitions regarding the properties of objects determine, in part, expectancies for behavior-reinforcement sequences” (Rotter 1980b, p.310). Therefore, in order to understand how an overall expectancy is formed, we can examine the related beliefs learned in these processes.

Applying the Social Learning Framework to Trust Building

If we apply the framework to trust building, then what does customer learn of a seller from each process? Table 1 shows the antecedents identified in some of the prior empirical studies. In the context of offline commerce, the antecedents identified by Doney and Cannon (1997), the supplier’s willingness to customize, information sharing behavior, relationship length,

among others, are most likely outcomes of direct experience with the other party. When salesperson is the trustee, as in Swan et al. (1999), then trustworthiness of the salesperson's firm, which is based on experience with other salespeople of the firm, represents direct experience in a similar situation. Supplier's reputation, since it is defined as the third-party's evaluation of the firm, is learned through modeling rather than direct experience (e.g. Doney and Cannon 1997, Ganesan 1994).

In online trust studies, antecedents such as website quality, service quality, familiarity with the website, among others, have emerged as outcomes of direct experience. Reputation and reputation-like feedback from other fellow customers represent modeling in the same situation. Structural assurance, which is the perceived legal and technological safeguard, can be learned in different ways. A customer might learn about legal safeguards in the online setting from the focal firm or other online firms, or from reports on online security and legislation. In the business to business market (e.g. Pavlou 2002), the market maker's monitoring and accreditation of participant firms can be regarded as a type of structural assurance.

Table 1: Trust antecedents and learning processes

Study	Direct experience in same situation	Direct experience in similar situation	Modeling in same situation	Modeling in similar situation
Offline Trust				
Doney and Cannon 1997 (Sales manager vs. supplier firm and sales person)	Firm related: Willingness to customize, confidential information sharing, and length of relationship, vendor size; Salesperson related: Salesperson's expertise, power, likability, similarity, business/social contact, length of relationship		Supplier's reputation	
Swan et al. 1999 (Meta-analysis, customer vs. salesperson)	Salesperson's benevolence, competence, likability/similarity, selling	Salesperson's firm		

	techniques, experience,			
Morgan and Hunt 1994 (Among member firms of NTDR)	Shared values, opportunistic behavior, communication			
Ganesan 1994 (Retailers vs. suppliers)	Supplier's specific investment, experience with, satisfaction		Reputation	
Geyskens et al. 1999 (meta-analysis, buyers vs. suppliers)	Conflict, non-economic satisfaction			
Online Trust				
Pavlou 2002 (Small biz vs. general sellers in auction market)		Market monitoring, accreditation, legal bonds, and norms	Other customer's feedback, market monitoring, accreditation, legal bonds, and norms	Market monitoring, accreditation, legal bonds, and norms
McKnight et al. 2002a, 2002b (Students vs. fictitious legaladvice.com)	Website quality	Structural assurance	Vender reputation, structural assurance	Structural assurance
Pavlou and Gefen 2002 (Auction market)		Auction-house escrow	Buyer-driven certification, auction- house escrow	Buyer-driven certification, auction- house escrow
Grazioli and Jarvenpaa 2000 (students vs. real web stores)	Vendor size		Reputation	
Gefen 2002a , 2003 (Students vs. Amazon.com)	Familiarity, service quality			

From Table 1, we observe that first, the antecedents collected can be of different levels of generalizability. For example, structural assurance is a relatively general perception that can incorporate many beliefs like security and legal safeguard, whereas a supplier specific investment as in Ganesan (1994) is a very specific attribute. Second, it is possible to attain a more general antecedent, such as structural assurance, from different learning processes (e.g. prior purchase experience, friend's experience, etc.). Third, the four learning processes are comprehensive enough in identifying possible ways of collecting trustee information. Finally,

efforts should be devoted to examining all four learning processes in search for potentially important trust antecedents. The reason that not all learning processes are investigated and their learning outcome considered in Table 1 might be that 1) the learning process does not apply, 2) no salient learning outcome can be identified from a particular process, or 3) it is simply overlooked.

INITIAL ONLINE TRUST BUILDING FOR BRICK-AND-CLICK COMPANIES

Now that we have established the SLT-based trust building framework, to demonstrate its utility, we apply it to IOT building for potential first-time customers of a brick-and-click firm. IOT building is an important phenomenon in ecommerce that has been under-investigated. The SLT-based framework implies that we should differentiate customers based the learning processes available to them. With an intention to study the offline-online synergy, we particularly differentiate those who have prior offline experience with a brick-and-click firm and those do not. We assume they all have experience in other learning processes.

Perceived Ease of Use of the Website as Learning Outcome

Potential customers, first of all, can have partial direct experience with the online firm. These customers could have browsed the website and searched for a product without actual purchase. In other words, their direct experience is limited to “window shopping” (Gefen 2003). One major learning outcome of such experience is the system quality. The concept of system quality encompasses both the perceived ease of use and usefulness of a system (e.g. DeLone and McLean 1992). However, for potential customers, since no transaction has been made, usefulness of the website is more an expected reward in the future. What they can observe is mainly the ease of use of the system.

Being the learning outcome of direct, though partial, experience, the ease of use of a website is also a trust signal to customers. A well designed website requires substantial investment, which can be regarded as a sunk-cost-type of signal (Kirmani and Rao 2000). Regardless of future sales, the cost is incurred up front. A confident seller expects to recover this cost in future sales, while a less confident one may be better off not making such an investment, as suggested by the signaling theory. Like a physical storefront, it also suggests the care seller has taken to offer a better purchase experience to customers (Gefen 2003), and the technical and financial strength of the company. McKnight et al. (2002) and Gefen (2003) did find empirical evidence that the web design affects a buyer's trust. Since such direct experience is available to both customers with or without offline experience, we hypothesize:

H1: For both customers with and without offline experience, the perceived ease of use of the website is positively related to their trust in the company's online presence.

Reputation as Learning Outcome

Modeling is mainly by the means of reputation. Reputation is defined as a collective representation of firm's past actions and results that describes the firm's ability to deliver valued outcomes as evaluated by third-parties (Fombrum and Riel 1997). Although it is possible that the reputation of a brick-and-click firm encompasses its online practices, it is likely that a substantial share of such reputation is built from its offline practices. Good reputation enhances trust at least for three reasons. First, according to SLT, observation of other's behavioral consequence can serve as an antecedent of the observer's expectation when facing same stimulus (Bandura 1977). Reputation incorporates other's behavioral consequence. Such vicarious experience is internalized by the observer, akin to the transference process of trust building (Doney and Cannon 1997). Second, reputation is a summarization of trustee's past. In trust building, "the

past prevails over the present and future” (Luhmann 1979, p.19). Since trust is a future-oriented evaluation, reputation provides the needed historical information to make that assessment. Finally, reputation affects trust because it is monetarily valuable (Fombrum and Riel 1997). A firm is unwilling to jeopardize its established reputation. In this regard, reputation serves as a signal of trust. Empirical evidence has been offered by Ganesan (1994), McKnight et al. (2002b), and Grazioli and Jarvenpaa (2000). When customers have heard of the company, we posit that:

H2: For both customers with and without offline experience, the seller’s reputation is positively related to customers’ trust in the online presence of the company.

Offline Satisfaction as Learning Outcome

Potential customers can have personal experiences with the focal firm offline, which constitutes direct experience in a similar purchase situation. The satisfaction with offline experience can be used to summarize the learning outcome. In fact, buyer’s satisfaction with the seller in prior dealings has been identified as a key variable impacting trust building offline (e.g. Ganesan 1994; Garbarina and Johnson 1999).

A satisfactory offline experience, as a direct experience in a similar situation, is expected to be generalized to the online contexts because of the similarity of the situations. The SLT posits that “the similarity of the problem provides the dimension for the generalization of expectancies” (Rotter 1980b, p.304). We posit that:

H3: For customers with offline experience with the company, the offline satisfaction is positively related to her trust in its online presence.

Structural Assurance as Learning Outcome

Still another learning scenario can be potential customers’ purchase experience with other online firms, but not the focal one. Such experience, together with the knowledge of reported Internet

experience of fellow customers, leads to the perceived structural assurance of the Internet, which encompasses the current technological safeguards, legal environment, and the online market management (McKnight et al. 2002a). Based to SLT, institutional trust can be regarded as a type of generalized expectancy of online environment. Rotter (1980b p.304) proposes two types of generalized expectancy: one is the same reward but different situation, another different reward but similar situation. Therefore, both direct and vicarious online experiences with other web stores affect structural assurance perception. Generalized expectancy can affect specific expectancy when the situation is novel (Rotter 1980a). Prior empirical studies have shown that structural assurance fosters trust development (McKnight et al. 2002a, 2002b). Therefore:

H4: For both customers with and without offline experience, structural assurance positively affects a customer's trust in the online presence of the company.

In summary, as the result of the four SLT-based learning processes, four types of customer experience can be summarized as website experience (direct experience in the same situation), offline experience with the company (direct experience in a similar situation), reputation (modeling in a similar, and possibly the same situation), and general experience with Internet – i.e., structural assurance (modeling, and possibly direct experience in a similar situation). Table 2 summarizes these experiences and the learned perceptions of the firm.

Table 2: Initial online trust building

	Same situation	Similar situation
Direct experience	Browsing experience with the website ➤ Perceived website quality, such as perceived ease of use	Purchase experience with the offline establishment ➤ Offline satisfaction Purchase experience with other companies online ➤ Structural assurance
Modeling	Other's evaluation of the website. ➤ Partially reflected in reputation	Other's evaluation of offline company ➤ Largely reflected in reputation Other's evaluation of the Internet environment ➤ Structural assurance

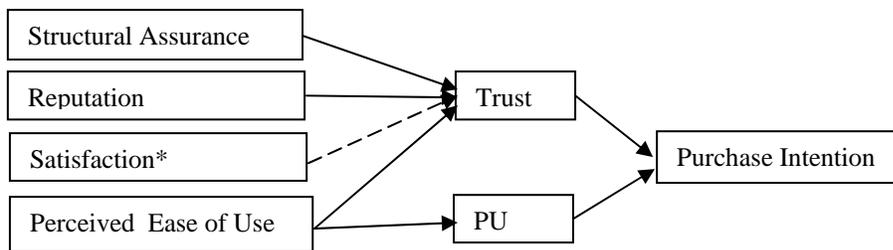
Trust, Perceived Usefulness, and Purchase Intention

As noted earlier, SLT asserts that both expectancy and perceived reinforcement (i.e., reward) will lead to the behavioral potential. A specific behavior potential here is the purchase intention. Anticipated rewards include effectiveness and efficiency of the online shopping process, i.e., perceived usefulness of the website. Therefore, both trust and perceived usefulness should affect purchase intention. This is also observed by Gefen (2003). Based on SLT, we posit that:

H5: For both customers with and without offline experience, trust in the online presence of the company and the perceived usefulness of the website positively affect purchase intention.

Although not of our focal interest, following the technology acceptance model (Davis 1989), we hypothesize:

H6: For both customers with and without offline experience, perceived ease of use positively affects perceived usefulness.



* Offline Satisfaction applies only to customers with offline experience.

Figure 2. Research model for brick-and-click firms

METHODOLOGY

Instrument Development

A survey study was carried out to test the proposed theoretical model. Since most of the constructs used in this study have been proposed in the literature before, instruments for these constructs were reused from the past literature as much as possible. To measure initial online

trust in the web presence of a company, we based our scale on Grazioli and Jarvenpaa (2002), and added an item to measure the ability of the web store. This final set of items taps into all three tenets of trust, i.e., competence, benevolence, and integrity. To measure a customer's overall satisfaction with offline purchase, we adopted Spreng et al.'s (1996) overall satisfaction scale which consists of four items: satisfied, pleased, contented, and delighted. Since we were unable to find a concise and all encompassing reputation measure, we developed our own scale. Structural assurance scale was adopted from McKnight et al. (2002a). Perceived ease of use and usefulness were based on Davis (1989) with a minor change to fit the online context. Purchase intention was based on Doods et al. (1991). The questionnaire used the seven-point Likert scale. All items are listed in *Appendix 1*.

Since most of the items were based on prior studies, no sorting exercise was carried out. Instead, a focus group discussion was conducted to ensure the face validity of the items. Six students with some online purchase experience were invited to discuss the meaning and wording of the items and to test out the online survey website. Based on their feedback, some minor revisions were made. Participants observed that it would take at least 7 minutes to complete the survey. This time threshold was later used to clean survey data.

Data Collection

The survey was conducted online. Subjects were asked to evaluate one of two brick-and-click firms. A two-step process was followed with both pilot and main study. For the pilot study, students were recruited from a major university in the northeastern U.S. Two bookstores, Barnes & Noble and Borders, were used as brick-and-click firms based on a class poll. The invitation was made by announcement in several courses. The survey website was online for three weeks. Only those students with offline experience were asked to answer items measuring offline

satisfaction. As an incentive for their participation, subjects were given an opportunity win one of 10 prizes of \$50. Data collected from pilot study were used to validate the initial instrument. The purpose of this step was to 1) eliminate the items that do not load well on the intended construct; and 2) test the functionality of the survey website.

After the pilot study, necessary adjustments to the questionnaire were made. Because the two bookstores selected for the pilot study have been long established as reputable firms, we observed relatively low variance with respect to both reputation and trust. Hence, for the main study, we used two CD stores to increase the variance. CD and books are both standardized products and the instrument developed in the pilot test should be applicable to the new situation. Again, a quick survey was conducted to collect names of brick-and-mortar stores that students have bought CDs offline. As a result, *Sam Goody* and *Tower Records* were selected. To ensure face validity of the modified questionnaire and the website, we conducted a second focus group discussion with four students. Based on their feedback, few minor revisions were made.

Because the pilot study produced unbalanced subject distribution between those who have offline experience and those who have not, in the main study, we deliberately balanced the number of subjects between these two groups as well as between the two firms. Since we have four combinations (2 bookstores \times 2 types of offline experience), this is done by assigning a subject to the group of smallest sample size, if applicable. If we assume the arrival of subjects to be independent, this assignment is not expected to bias the subject distribution.

For the main study, students from the same university were used. A message was sent out via the university email system to solicit student participation in the study. Two weeks later the same invitation letter was sent out again to solicit further participation. The survey website was online for three weeks.

Besides browsing the website and answering the survey, subjects were asked to select a CD that they could possibly win as a prize. The purpose of giving this incentive is to motivate subjects to use the website essentially the same way a potential customer would. They were also asked to comment on the customer help information, shopping cart and payment, and return policy so as to further engage them in the online shopping experience. After the completion of the study, we randomly selected approximately 150 students, purchased corresponding CDs from a local store, and distributed them.

DATA ANALYSIS AND RESULTS

Pilot Study

The pilot study generated 216 responses online. To ensure data quality, records were cleaned based on the following criteria: 1) Subject must have heard about the focal company, 2) subject must have some prior online buying experience from some web store, 3) subject must not have bought from the focal company online, and 4) subject must spend at least seven minutes on the survey. After data cleansing, 140 usable observations were kept, which is 65% of 216. Table 3 illustrates the subject distribution.

Table 3: Subject distribution for pilot study

Web store	No offline experience	With offline experience	Total
Barnes & Noble	21	58	79
Borders Bookstore	14	47	61
Total (percentage)	35 (25%)	105 (75%)	140 (100%)

We carried out exploratory factor analysis (EFA) in two steps. In step one, a pooled test was done with all the subjects, but leaving out the satisfaction items because they are not applicable to some subjects. Principal factor analysis (PCA) with varimax rotation was done to check the convergent and discriminant validity of the instrument (N=140). Only factors with eigenvalue greater than one were kept. Six constructs were extracted as expected. All items

except one loaded on the intended construct with a factor loading greater than 0.5; and the loadings on unintended factors were less than 0.4. Item TRUST1, which measures the ability aspect of an online store, cross-loaded on other factors. Overall, the EFA result is satisfactory based on the guideline of Hair et al. (1995). In step two, we used only the subjects with offline experience (N=105), and included offline satisfaction items. Except the same item, TRUST1, all items loaded on the factor as expected. To measure the reliability of the instrument, Cronbach alpha were calculated for the pooled sample. The lowest value is 0.85, which is above the recommended threshold (Nunnally and Berstein 1994). Factor analysis for the group of subjects having no offline experience was not done because of the small sample size in that group.

During the second focus group discussion, few subjects suggested that reputation item REP5 (“From what I have heard, this company has a higher reputation than its competitors.”) was not answerable if one does not know who the competitors are. Item REP6 was found to be too similar to REP1. Those two items were then dropped even though they loaded well in the pilot study. Item TRUST1 was also dropped because of the loading problem. No problems were found after these adjustments.

Main Survey

The main survey generated 359 responses. A similar data cleansing process was used. However, the required time spent on survey is adjusted to at least eight minutes, because, 1) subjects were expected to be more serious in finding a CD that they could win as a prize; and 2) the distribution of survey time showed that eight-minute is a sharp cutoff point between the majority subjects and some “quick” subjects. After data cleansing, 253 usable records were retained, about 70% of 359. The demographics of the subjects are reported in Table 4. The distribution between different subject types and stores were approximately balanced. Although

we used student subjects, our subjects are similar to general online consumer population who are generally well educated and young.

Table 4. Distribution of subjects in the main study

Subjects	Age (s.d.)	Gender	Years using Web	Online shopping experience (times)	Store distribution*
Subjects with offline experience (N=126)	21.2 (3.3)	M=48% F=52%	7.4 (1.6)	2.1 (1.4)	Sam = 49% Tower = 51%
Subjects without offline experience (N=127)	22.1 (9.1)	M=44% F=56%	7.7 (2.3)	2.0 (1.5)	Sam = 46% Tower = 54%

* Sam = Sam Goody, Tower = Tower Records

Because the subjects were self-selected to participate in the survey, and because the survey had lasted for three weeks, response bias needs to be checked before data analysis. Non-response subjects were difficult to identify in this case. Rather, early and later respondents were compared on not only the demographics, but also the item average of trust. No significant difference was found.

Measurement Model

Following Anderson and Gerbing (1988), the measurement model was first tested before hypothesis testing. The objective of measurement model testing is to ensure the measurements are of high quality, i.e., to establish the construct (convergent and discriminant) validity. Measurement model was first tested separately for the two groups of customers using confirmatory factor analysis (CFA) in LISREL. Afterwards, the factor structures of the measurement model for the two groups were compared to ensure that items were interpreted in the same way.

Convergent validity is the degree with which the items of a given construct are measuring the same underlying latent variable. To assess it, three criteria were used based on the suggestion of Anderson and Gerbing (1988). First, the standardized factor loadings, which are indicators of the degree of association between the latent factor and each item, must be statistically significant.

Second, the composite reliabilities, as well as the Cronbach's alphas, should be larger than 0.8 (Gefen 2002b). Finally, the average variance extracted (AVE) for each factor should exceed 50%, (Fornel and Larker 1981). As shown in Table 5, all factor loadings were significant for both groups; the minimum AVE was 0.65; and the reliability measures were above 0.8. All items were retained and the convergent validity is established.

Table 5. Measurement model for two groups of subjects

Item	Customers with offline experience					Customers without offline experience				
	Smallest Std. loading	Smallest T-value	AVE	Composite Factor Reliability	α	Smallest Std. loading	Smallest T-value	AVE	Composite Factor Reliability	α
Structural Assurance	0.61	7.29	0.65	0.88	0.87	0.63	7.5	0.63	0.87	0.86
Reputation	0.8	10.52	0.75	0.92	0.92	0.73	9.09	0.62	0.86	0.86
Satisfaction	0.86	11.93	0.78	0.93	0.93	--	--	--	--	--
PEOU	0.78	10.17	0.71	0.93	0.93	0.74	9.47	0.68	0.93	0.93
PU	0.85	11.63	0.77	0.91	0.91	0.87	12.05	0.79	0.92	0.92
TRUST	0.72	9.16	0.72	0.91	0.90	0.7	8.81	0.65	0.88	0.87
Purchase Intention	0.81	10.76	0.74	0.93	0.93	0.83	11.31	0.80	0.95	0.95

Discriminant validity means the degree to which the measures of two constructs are empirically distinct. In this study, discriminant validity was verified with constrained confirmatory factor analysis suggested by Anderson and Gerbing (1988). For every pair of factors, an ordinary confirmatory factor analysis was done first. After that, the correlation was set to unity (1.0) and the model was tested again. A χ^2 test is used to compare the results from the constrained and the original model. Discriminant validity is evidenced if the χ^2 difference is significant. Pair-wise constrained test found the chi-square differences to be all significant, hence the discriminant validity is established.

Table 6 reports the overall fit indices of the models. Most of the indices are above the suggested level. However, our NFI and GFI should be considered somewhat low¹.

Table 6. Overall measurement model fit

Fit indices	Customers with offline experience	Customers without offline experience
Degree of freedom	384	284
Chi-Square	441.75 (P=0.02)	392.66 (P=0.00)
Root Mean Square Error of Approximation (RMSEA)	0.035	0.055
Normed Fit Index (NFI)	0.86	0.85
Non-Normed Fit Index (NNFI)	0.96	0.94
Comparative Fit Index (CFI)	0.96	0.95
Incremental Fit Index (IFI)	0.96	0.95
Relative Fit Index (RFI)	0.84	0.83
Goodness of Fit Index (GFI)	0.81	0.81

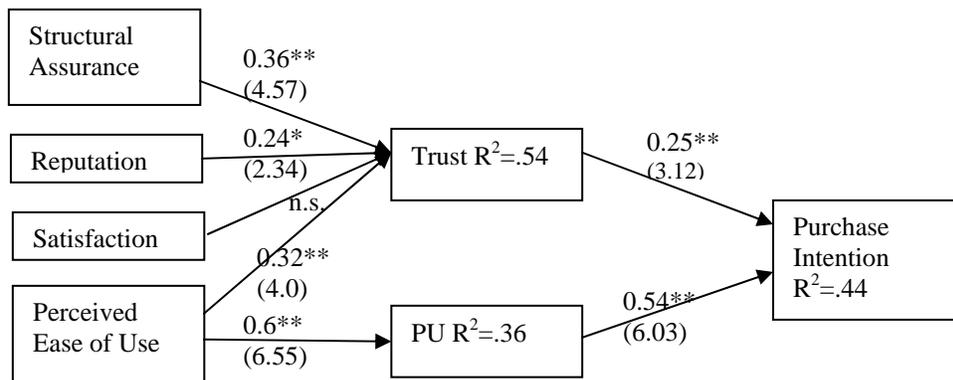
Since we have two groups of subjects, in order to test hypotheses, we have to ensure the constructs are interpreted in the same way. Byrne (1998, p.294) suggested that the invariance of latent factor structure can be verified by comparing the fitting of two models: for one, the factor loadings of two groups of subjects are set equal; for the other free. If a multi-group model with factor loadings set equal does not degenerate the model fitting significantly, then the invariance of the factor structure can be assumed. Excluding the construct *Satisfaction*, our between-group test reported the $\Delta\chi_{20}^2 = 14$, $p=0.83$ (with 26 items for 6 constructs, the difference in degree of freedom is $26-6=20$), suggesting no significant difference in instrument interpretation.

Hypotheses Testing

The structural models were examined based on the measurement models for the two customer groups. The model residual (RMSEA) and normalized indices (NNFI, CFI) were satisfactory.

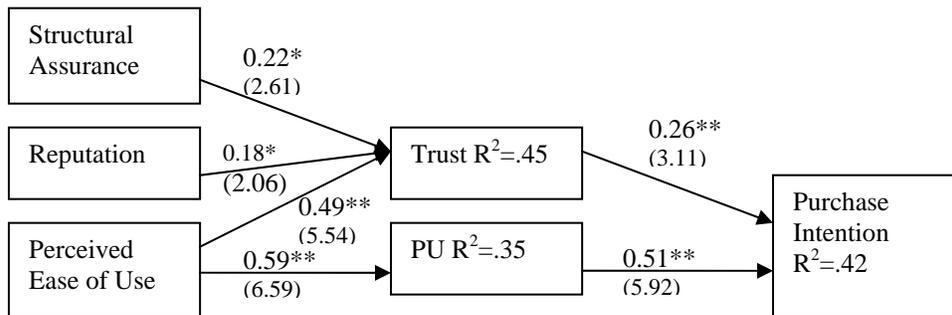
¹ We apply the following standards to assess model fit: normed fit index (NFI) greater than 0.90, comparative fit index (CFI) greater than 0.90, and root mean square of approximation (RMSEA) lower than 0.08 for a good fit and lower than 0.05 for an excellent fit (McKnight et al. 2002a). For goodness-of-fit (GFI), different thresholds at 0.9 and 0.8 have been proposed in the literature (Chin and Todd 1995; Segars and Grover 1993).

GFI (GFI=0.81) and NFI (NFI=0.81) were still low albeit above the minimum requirement. However, such low fit indices can be a result of the relatively small sample size after splitting the subjects into two groups, because GFI and NFI are sensitive to sample size. To verify it, for the shared constructs, a pooled test was done. The resulting indices show that NFI=.92, RFI =.91, GFI=.88, NNFI=.96, CFI=IFI=.97. These results suggest that sample size is a factor. Figure 3 summarizes the LISREL test for hypotheses. The offline satisfaction was found not to be a significant factor on initial online trust. Therefore, H3 is not supported. Except for H3, the rest hypotheses were supported. The correlation between constructs is reported in *Appendix B and C*.



$\chi^2=449$, $df=392$, $p=.03$, $RMSEA=.033$, $NFI=.84$, $NNFI=.96$, $CFI=.96$, $IFI=.96$, $RFI=.84$, $GFI=.81$,
 * $p<0.05$, ** $p<0.01$

(a) Customers with offline experience



$\chi^2=407$, $df=290$, $p=0.000$, $RMSEA=.057$, $NFI=.85$, $NNFI=.94$, $CFI=.95$, $IFI=.95$, $RFI=.83$, $GFI=0.80$,
 * $p<0.05$, ** $p<0.01$

(b) Customers without offline experience

Figure 3. Standardized LISREL solution

DISCUSSION

Summary of Hypotheses Testing

The objective of the empirical test is to see if the trust antecedents identified based on the proposed SLT-based framework are applicable to the IOT building for brick-and-click firms. Our data analysis suggested that for potential customers, the perceived ease of use of the website, company reputation, and the environmental structural assurance affect customers' trust as hypothesized. On the other hand, for customers with offline experience, though the same three antecedents affect trust, the satisfaction with offline experience did not. For both groups, large trust variance has been explained ($R^2=.54$ and $R^2=.45$, respectively). In addition, the trust and perceived usefulness together explained more than 42% variance of purchase intention for both groups of customers. The result is consistent with the social learning theory that the behavioral potential is a function of expectancy and reinforcement. Taken together, the SLT-based framework seems to be applicable to the formation of initial online trust, though offline experience, which represents one way of social learning from similar situation, failed the test.

Why is satisfaction non-significant? Technically, because there was no local outlet of the CD stores at the survey site, subjects in this survey had to recall their experience with the company a few months, or even longer when they were back home. Lack of local presence might reduce the linkage between the image of offline establishment of a company and its online presence.

Nonetheless, we are more interested in some plausible theoretical reasons. The SLT suggests that the generalizability of learning experience is inversely related to the novelty of a new situation (Rotter 1980, 1971). When a situation is new, a more general expectancy is more applicable than a specific expectancy (Rotter 1980). Comparing offline experience and

reputation, reputation seems to be a more general impression of a brick-and-click company in online context, as it subsumes not only customer service, but also a company's financial strength, research and development, operational ability and practice in all possible locations (Fombrum and Shanley 1990). Therefore, reputation remains significant while offline satisfaction does not². However, such speculation is subject to future tests.

Limitations and Future Research

Before discussing the implications of the study, the limitations of the study should be noted. First, based on the framework, we identified only a limited number of factors as trust antecedents for brick-and-click firms. There might be other important information about a company that customers can learn through these learning processes. For example, besides the ease of use of website, the service policy, links between websites, among others, and the corresponding expectancy could also affect trust. In fact, service quality is found to have a significant affect on online trust (Gefen 2001). Similarly, Stewart (2003) found a relationship between an unknown website and a trusted website when the trusted website contains a link to the unknown website. Second, some of our variables can be learned from multiple learning processes. For example, the reputation construct concerns the company in general. It might be desirable to study the specific reputation regarding the online operation of a company vis-à-vis its offline counterpart. Similarly, it is possible to further divide the structural assurance construct (see Table 2). Third, lumping all those with varying levels of offline experience (e.g., last time the purchase was made, total number of purchases made, etc.) into a single group is likely to distort the impact of offline satisfaction on trust. Finally, methodology-wise, the use of student subjects, small sample size, product type, and the firms used will surely limit the generalizability of the findings. As we have

² It should be pointed out that when tested, a simplistic model with only trust and online satisfaction revealed a significant relationship between them ($p = 0.000$)

observed earlier, the small sample size can be one reason leading to low GFI. Duplication of the study with other products and firms and with real customers are essential to verifying the current findings.

Last but not least, our SLT-based trust building framework is a *process model*; however, its application to brick-and-click company is based on the outcome of the learning processes rather than the processes themselves. It is prudent to directly investigate the learning processes customers really use to further verify the utility of the process model. In consumer research, the consumer information searching studies which investigate how different information sources are utilized (e.g., Beatty and Smith 1987) might give us a good insight into how to investigate a process model directly in future studies.

Implications

Theoretical implications. With all these limitations in mind, we now discuss the theoretical implication of the study. First of all, this study provides an SLT-based framework for trust building; based on it, the major learning processes are identified and their outcomes can be organized and analyzed. It compliments the prior research, which identifies the psychological process of trust building and answers *why* evidence leads to trust, by providing an answer to *how* such evidence is obtained by the trustor. Together with prior literature, it provides a comprehensive picture of the overall process.

Second, this framework offers a tool to identify and examine the important trust antecedents. We demonstrated its application with the IOT building for brick-and-click companies. Hence, it is possible to apply the same framework to other trust contexts to uncover important antecedents.

Finally, this study suggests that when studying trust formation, trustors with different level of experience with the trustee should be differentiated. For potential online customers of brick-and-click firm, those with offline experience and those without have different set of learning processes for initial online trust. Such segmentation of trustor was largely neglected in prior empirical research of buyer-seller trust relationship both online and offline. Studies that explicitly compares different customer segments are scant (one such exception is Gefen et al. 2003). Our study represents a first study in this effort in initial online trust building.

Practical implications. With respect to practical implications of this study, we offer the first piece of evidence for the hypothesized brick-and-click synergy in the case of trust transference. Reputation spillover is one of the major mechanisms that lead to such synergy. This confirms many earlier speculation of the benefit of having offline presence for online firms (e.g. Willcocks and Plant 2001). Hence, offline-established firms can leverage their reputation and compete with newly established online companies who have little name recognition yet. Such an edge allows them to enjoy the second mover advantage by learning from the mistakes of earlier players in online market, yet still be able to catch up with reputation as a weapon. In this regard, online competition is essentially the extension of offline competition, not an independently new one.

It is possible that offline satisfaction could be another weapon if the offline-online transference is successfully managed. Willcocks and Plant (2001) observe that for successful online companies, the service leadership is more effective than pure brand strategy. As we mentioned above, the insignificant results in offline trust transference in this study might be due to the lack of integration rather than the own merit of offline satisfaction. For example, bn.com is a split-off of the physical company (Barnes & Noble) with its own stocks and independent

financing, operation, and marketing operation. Besides the shared name, nothing else is integrated. Customers cannot buy online and return to a local store, nor can they order a book online at the local store if it is out of stock. WalMart.com, in contrast, is not an independent entity. Customers can return items bought online to the local store with the original package and receipt. Such close integration might help a customer to view the online presence as a value-added channel complementing the physical operation, and regard the customer service quality to be the same. In such firms, the transference of offline satisfaction to online operation is much likely to occur and the impact on online trust be resulted. Unfortunately, the two companies in the survey do not differ in the integration strategy, and both adopt a low-integration practice, thus prevent us from testing such hypothesis. Future study is called for in this direction.

In addition to the synergy via reputation and service integration, online operation has its distinct element, the website. It is possible to take a lead with a better website. Willcocks and Plant (2001) suggested several strategic routes that a company can take to win the online competition: brand strategy, technology leadership, and service leadership. The technology leadership, however, is not the sheer use of the latest technology, but rather the management of it (Willcocks and Plant 2001). The leadership comes with wise use of technology to better serve the customers' need. By offering a high quality and easy to use website that facilitate customers' searching and buying process, a company can achieve greater customer trust in its online operations. This is especially important for companies which have only online presence or for those companies reaching to a new market with little or no name recognition.

Overall, this study suggests an integrated management of initial online trust for a brick-and-click firm. All contacting points should be attended to foster customer's confidence in the

online operation. Neglecting the customer learning processes would retard customer's trust building online, hence waste the investment and forgo the benefit of ecommerce.

CONCLUSION

Initial online trust is a critical variable for ecommerce success. Accordingly, many studies have examined various aspects of online trust. However, the prior trust studies have not addressed the question of how trust evidences are collected. Based on SLT, this study proposes a new framework that addresses the learning processes based on which trust is formed. Therefore, it complements prior literature and offers an encompassing picture of how trust is formed. To demonstrate its utility, we applied this framework to an important yet under-investigated scenario, the initial online trust building for brick-and-click firms. Four particular customer learning processes were identified in this context, i.e., the experience with the website, the experience with the offline establishment, reputation, and general experience with the Internet. Based on our framework, we differentiate customer with or without offline experience. Our results suggest that the reputation of a company, the system quality of website, and the general perception of Internet structural assurance are important learning outcomes that affect customer's initial online trust for both customer groups. However, customer's satisfaction with offline purchase experience did not emerge as a significant predictor of initial online trust. We suspect that the insignificance of offline experience on online trust might be caused by the lack of integration between the online and offline operations. Future research is called for to investigate how the offline-online synergy can be realized.

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APPENDIX

A. Questionnaire

Variable	Item	Description	Reference
Structural Assurance	SA1	The Internet has enough safeguards to make me feel comfortable using it to transact personal business	McKnight et al. 2002a
	SA2	In the U.S., I feel assured that legal structures adequately protect me from problems on the Internet (e.g., ability to bring up disputes with legal courts or a third parties such as Better Business Bureau).	
	SA3	I feel assured that technological structures (e.g., security technologies like data encryption) make it safe for me to do business on the Internet	
	SA4	In general, Internet is now a robust and safe environment to transact business	
Reputation	REP1	Based on what you have heard from other sources alone, but NOT on your personal experience, please indicate: From what I have heard, this company has a good reputation	Self-developed
	REP2	This company enjoys high public esteem	
	REP3	In the public opinion, this company is favorably regarded	
	REP4	According to what I heard, the reputation of this company is high	
	REP5	I heard this company is a reputable company (Dropped)	
	REP6	From what I have heard, this company has a higher reputation than its competitors (Dropped)	
Satisfaction	SAT1	Describe your feelings with respect to all aspects of your prior shopping experience with the corresponding PHYSICAL STORE of this company: Displeased – Pleased	Spreng et al. 1996
	SAT2	Unhappy – happy	
	SAT3	Disgusted -- Contented	
	SAT4	Dissatisfied – satisfied	
Perceived ease of use	PEOU1	I would find this website flexible to navigate	Davis 1989
	PEOU2	I would find it easy to buy products on this website	Self-developed
	PEOU3	I would find it easy to locate information on this website	
	PEOU4	I would find this website to function the way I anticipated	
	PEOU5	Learning to use this website would be easy for me	Davis 1989
	PEOU6	This website is easy to use	
Perceived usefulness	PU1	Using this website would make my shopping process less troublesome	Davis 1989
	PU2	Using this website would make my shopping process more effective	
	PU3	Using this website would make my shopping more efficient (i.e., save time)	
Trust	TRUST 1	This web store is capable in fulfilling customers' order (dropped)	Bhattacharjee 2002

	TRUST 2	This web store keeps promises, (e.g., allow me to return the CD according to the store return policy)	Grazioli and Jarvenpaa (2002)
	TRUST 3	This web store can be relied upon	
	TRUST 4	This web store cares about customers	
	TRUST 5	In general, this web store is trustworthy	
Purchase intention	PI1	If you were to buy some product available on this website: The likelihood of me purchasing something from this website is (very low – very high)	Doods et al. (1991)
	PI2	If I were to buy something, I would consider buying it from this website	
	PI3	At the price shown, I would consider buying products from this website	
	PI4	The probability that I would consider buying something from this site is (very low – very high)	
	PI5	My willingness to buy something from this website is (very low – very high)	

B. Construct Correlation Table for Customers with Offline Experience

	PU	TRUST	PI	SA	REP	SAT	PEOU
PU	1						
TRUST	0.3	1					
PI	0.61	0.41	1				
SA	0.07	0.5	0.16	1			
REP	0.17	0.53	0.22	0.27	1		
SAT	0.26	0.54	0.27	0.25	0.69	1	
PEOU	0.6	0.49	0.45	0.12	0.28	0.43	1

C. Construct Correlation Table for Customers without Offline Experience

	PU	TRUST	PI	SA	REP	PEOU
PU	1					
TRUST	0.35	1				
PI	0.6	0.44	1			
SA	0.13	0.39	0.17	1		
REP	0.19	0.41	0.2	0.33	1	
PEOU	0.59	0.59	0.45	0.22	0.32	1