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Propensity to Trust, Purchase Experience, and Trusting Beliefs of Unfamiliar E-Commerce Ventures

Gregory B. Murphy

Trust has become a major issue among online shoppers. This underresearched subject will predictably determine the success or failure of e-commerce vendors. The lack of face-to-face interaction, the inability to inspect goods and services prior to purchase, and the asynchronous exchange of goods and money all contribute to the perceived risk of purchasing online and the resulting need for trust. Trust is particularly critical for small and new Internet ventures confronted by the liability of newness (Stinchcombe 1965). Lacking, among other things, a name that is readily recognized in the marketplace, entrepreneurial Internet ventures require trust if they are to succeed. The research presented in this article addresses this issue by building on the work of McKnight and colleagues and considering the effects of propensity to trust on trusting beliefs. Specifically, the author predicts that propensity to trust will significantly affect perceived ability, benevolence, and integrity but only for those individuals with limited direct experience. Based on a sample of web survey participants, the author found that propensity to trust significantly impacted perceived ability and benevolence for individuals with limited direct experience only. No statistically significant results were found for the effects of propensity to trust on perceived integrity.

Trust has been argued to be “the most significant long-term barrier for realizing the potential of e-commerce to consumers” (Grabner-Kraeuter 2002, 43). This underresearched subject (Cheung and Lee 2001; McCole 2002) will predictably be a “key differentiator that will determine the success or failure of many Web companies” (Urban, Sultan, and Qualls 2000). Hoffman, Novak, and Peralta (1999) noted that many would-be customers lack the trust in e-commerce vendors to go ahead and click the purchase button. Trust is particularly important for e-commerce ventures since, first, customers are usually not able to personally inspect the quality of goods and services or the venture’s professionalism (McKnight and Chervany 2001; Torkzadeh and Dhillon 1999) and, secondly, Internet purchases are typically viewed as being more risky (Lee and Turban 2001) since the exchange of goods and money are not simultaneous (Grabner-Kraeuter 2002; Warrington, Abgrab, and Caldwell 2000; Yoon 2002). The lack of face-to-face interaction between salesperson and customer further inhibits the development of trust in online markets

(Chadwick 2001; Papadopoulou, Andreou, Kanellis, and Markatos 2001; Yoon 2002). This lack of trust is particularly important for entrepreneurial ventures online as they strive to overcome the liability of newness (Stinchcombe 1965), lacking, among other things, a name that is readily recognized in the marketplace (Murphy and Smart 2000). Previous research has shown that brick-and-mortar establishments with strong brand identification enjoy a considerable advantage when establishing an online store (Cheskin Research/Studio Archetype 1999). The online business is seen as legitimate and trustworthy as a result of the previously established brand name awareness and reputation (Yoon 2002). Entrepreneurial online ventures, however, tend to have little or no name recognition even if the business has a corresponding brick-and-mortar establishment (Murphy and Smart 2000).

Gaining legitimacy and trust is important for the nascent online ventures success and survival as it facilitates the venture’s ability to attain needed resources (Murphy and Smart 2000; Zimmerman and Zeitz 2002). The digital economy does allow small entrepreneurial ventures to quickly and inexpensively compete side-by-side with industry titans (Joshi and Yermish 2000). Although entry barriers are low in the digital economy, trust is desperately needed for the small entrepreneurial venture to generate sales sufficient to sustain and grow the venture (Murphy and Smart 2000).

Recent research has begun to address this issue by offering (Cheung and Lee 2001; Gefen 2002; Grabner-Kraeuter 2002; Javenpaa, Tractinsky, and Vitale 2000; Kimery and McCord 2002; Lee and Turban 2001; McKnight and Chervany 2001; Murphy and Smart 2000) and testing (Gefen 2002; Kimery and McCord 2002; Lee and Turban 2001; McKnight, Choudhury, and Kacmar 2002a; McKnight, Choudhury, and Kacmar 2002b; McKnight, Kacmar, and Choudhury 2003; Murphy and Blessinger 2003) models of online trust development. Only Lee and Turban (2001), however, tested the relationship between propensity to trust and trusting beliefs. Specifically, Lee and Turban (2001) found that propensity to trust moderated the relationship between perceived integrity (a trusting belief) and consumer trust in Internet shopping. McKnight and Chervany (2001) proposed

propensity to trust as an antecedent of trusting beliefs for online shoppers but did not empirically test the relationship. This study seeks to extend this line of research by investigating the effects of propensity to trust on the basic trusting beliefs of perceived ability, benevolence, and integrity (Mayer, Davis, and Schoorman 1995; McKnight, Cummings, and Chervany 1998). Information gained from this study may be useful to e-commerce ventures in building a level of trust necessary to encourage online shoppers to click the purchase button, an action clearly necessary to survive and succeed as an online vendor.

McKnight, Cummings, and Chervany (1998) noted that initial trust formation is based on either the individual's propensity to trust or on information cues that promote trust in the absence of experience. Murphy and Smart (2000) and Murphy and Blessinger (2003) consider the effects of information cues but do not consider the effects of disposition or propensity to trust. Rotter (1971) stated that the impact of generalized expectancies (propensity to trust) should vary from situation to situation, depending on the novelty of the situation. Context and experience are, as a result, important when considering the effects of propensity to trust.

Trust

Trust is a complex construct and the definition of trust is not widely agreed upon (McKnight and Chervany 2001). McKnight and Chervany (2001) note that trust is a subject of interest to several major disciplines (psychology, economics, sociology, and social psychology) and that functional orientations logically lead scholars in different fields to adopt different definitions. There are, however, some common elements of major trust definitions. Specifically, there is a willingness to make oneself vulnerable under the general conditions of risk and uncertainty (McKnight and Chervany 2001; Rousseau, Stikin, Burt, and Camerer 1998). The need for trust increases as individuals have less information and experience in dealing with each other (Aldrich and Fiol 1994) and is considered to be a critical element needed to facilitate most exchange relationships (Mayer, Davis, and Schoorman 1995; Ring 1996; Rousseau, Sitkin, Burt, and Camerer 1998) including Internet transactions (Gefen 2002).

Different disciplines tend to focus on different trust relationships. Much of the management literature dealing with the subject of trust tends to focus on trust within organizations (Mayer, Davis, and Schoorman 1995; Rousseau, Sitkin, Burt, and Camerer 1998) while other parts of the literature focus on trust between persons and organizations (McKnight and Chervany 2001; McKnight, Choudhury, and Kacmar, 2002a; McKnight, Cummings,

and Chervany 1998). The focus of this study is person-to-organization trust. The within organization trust literature will be used, however, to the extent that the concepts logically extend to person-to-organization trust.

Trusting Beliefs

Mayer, Davis, and Schoorman (1995) offered what they termed factors of trust. McKnight and colleagues (McKnight and Chervany 2001; McKnight, Choudhury, and Kacmar 2002a and b; and McKnight, Cummings, and Chervany 1998) referred to these same factors as trusting beliefs. Both Mayer, Davis, and Schoorman (1995) and McKnight and colleagues extensively reviewed the trust literature and identified common and important trusting beliefs. Specifically, the authors identified ability, benevolence, and integrity as factors of trust or trusting beliefs. Mayer, Davis, and Schoorman (1995, 717) noted that these factors are "not trust per se," but they "help build the foundation for the development of trust." McKnight, Cummings, and Chervany (1998) and McKnight and Chervany (2001) are also careful to state that these trusting beliefs are part of a broader trust typology. These trusting beliefs are extremely important, however, because they are posited to directly affect trusting intentions (McKnight, Cummings, and Chervany 1998; McKnight and Chervany 2001) and trust itself (Lee and Turban 2001; Mayer, Davis, and Schoorman 1995).

Mayer, Davis, and Schoorman (1995) defined ability as "that group of skills, competencies, and characteristics that enable a party to have influence within some specific domain" (717). They stress the specificity of the domain of influence given the contextual applicability of specific skills, competencies, and characteristics. McKnight and Chervany (2001, 49) add that "in the case of the Internet relationship, the consumer would believe that the vendor can provide goods and services in a proper and convenient way." Benevolence was defined as "the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive" (Mayer, Davis, and Schoorman 1995, 718). "Benevolence is the perception of a positive orientation of the trustee toward the trustor" (719). In the context of e-commerce, McKnight and Chervany (2001, 49) add that "a benevolent Internet vendor would not be perceived to act opportunistically by taking advantage of the trustor." Integrity is defined as the "trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable" (Mayer, Davis, and Schoorman 1995, 719). In this particular context, the consumer believes that the Internet vendor will fulfill its ethical obligations (McKnight and Chervany 2001, 49). It is important to note that these trusting beliefs—ability,

benevolence, and integrity—are all perceptions of the trustor about the trustee. McKnight and Chervany (2001, 46) commented that “trusting beliefs means that one believes that the other party has one or more characteristics beneficial to oneself. In terms of characteristics, the consumer wants the e-vendor to be willing and able to act in the consumer’s interest, honest in transactions, and both capable of, and predictable at, delivering as promised.”

Mayer, Davis, and Schoorman (1995) conclude that ability, benevolence, and integrity are related but separable and that together they explain much of the variance in trustworthiness while maintaining parsimony. Gefen’s (2002) study empirically supports the validity of ability, benevolence, and integrity as trusting beliefs. Principal component analysis revealed clean factor loadings, and confirmatory factor analysis using LISREL confirmed the validity of using ability, benevolence, and integrity as important and distinct trusting beliefs, using two different samples of MBA students. Goodness of fit indexes strongly supported the model. Likewise, McKnight, Choudhury, and Kacmar (2002a) examined the factor structure of the three trusting beliefs and found strong convergent and discriminant validity.

Much of the literature on trust assumes the presence of a prior relationship (Bigley and Pearce 1998; Garbarino and Johnson 1999; Gulati 1995; Harrison, Dibben, and Mason 1997; Nooteboom, Berger, and Noorderhaven 1997). However, there is evidence that trust can be present, and in some cases strong, in the absence of a prior relationship (McKnight, Cummings, and Chervany 1998). McKnight, Cummings and Chervany (1998, 474–475) note that initial trust is not based on experience or prior knowledge but rather on “an individual’s disposition to trust or on institutional cues that enable one person to trust another without firsthand knowledge.” Building initial trust is precisely the dilemma faced by aspiring entrepreneurial Internet ventures (Murphy and Smart 2000). Lacking name recognition and exposure in the marketplace, new and/or small Internet ventures are likely very dependent on the consumer’s disposition or propensity to trust.

Propensity to Trust

Rotter (1971, 444) defined what he called interpersonal trust as “an expectancy held by an individual or a group that the word, promise, verbal, or written statement of another individual or group can be relied on.” Rotter (1971) adds that such expectancies are generalized and constitute a relatively stable personality characteristic. More recently, trust researchers have referred to these same generalized expectancies as propensity to trust or disposition to trust (Mayer, Davis, and Schoorman 1995;

Bigley and Pearce 1998; Kimery and McCord 2002; Lee, and Turban 2001; McKnight and Chervany 2001; McKnight, Cummings, and Chervany 1998; Cheung and Lee 2001). Mayer, Davis, and Schoorman (1995, 715) defined propensity to trust as “a stable within party factor that will affect the likelihood the party will trust.” Consistent with other definitions of propensity to trust, Bigley and Pearce (1998, 410) comment that “factors exist within individuals that predispose them to trust or distrust others, whom they do not know.” Mayer, Davis, and Schoorman (1995) note that at the extremes some people are willing to grant total blind trust while others will not trust regardless of the circumstances that make it relevant to trust. This individual characteristic is said to be something akin to a personality trait (Mayer, Davis, and Schoorman 1995) that is the product of early life socialization experiences (Bigley and Pearce 1998; McKnight, Cummings, and Chervany 1998).

In their reviews of the literature, Mayer, Davis, and Schoorman (1995) note that propensity to trust has been found to be significantly related to important organizational outcomes in different contexts. Lee and Turban (2001, 77) comment that “a consideration of consumer trust in Internet shopping that did not examine trust propensity, a personality trait of the concerned consumers, would be quite inadequate.” Mayer, Davis, and Schoorman (1995) and McKnight and colleagues (McKnight and Chervany 2001; McKnight, Cummings, and Chervany 1998) also suggest that propensity to trust should be significantly related to trusting beliefs. However, McKnight, Cummings, and Chervany (1998) report mixed empirical findings and conclude that any link has yet to be adequately proven. Bigley and Pearce (1998) comment on the empirical literature and note that many of the studies that have failed to find significant results did not consider the novelty of the situation in determining the salience of propensity to trust. In support of Bigley and Pearce (1998), Rotter (1971, 445) does comment that “the more novel the situation, the greater weight generalized expectancies have.” Rotter (1971, 445) adds that “the situation partially determines the response, and the theory predicts that situations of considerable familiarity are less predictable from a generalized tendency than those involving more novelty.” McKnight and Chervany (2001, 45) add that “disposition to trust will affect trust in a specific other (interpersonal trust), but only when novel situations arise in which the other and the situation are unfamiliar.”

The effects of propensity to trust should be strongest in the absence of previous experience. For the Internet shopper in particular, a lack of online experience creates a

novel and unfamiliar situation that should promote the importance of propensity to trust on trusting beliefs (McKnight and Chervany 2001). Since a potential Internet customer is unlikely to have previously encountered the website of a given new and/or small Internet venture, the effects of propensity to trust are particularly salient. Given such a novel environment, one's disposition or propensity to trust may be the only basis for trusting or not trusting (Johnson-George and Swap 1982).

Linking the previous literatures on propensity to trust and trusting beliefs, we posit that propensity to trust will significantly affect evaluations of an e-commerce vendor's perceived ability, benevolence, integrity, and trustworthiness—but only for individuals with low Internet purchasing experience. Experienced online shoppers are likely much less affected by trusting propensities. In such cases, previous experiences tend to dominate perceptions of trustworthiness (McKnight, Cummings, and Chervany 1998).

Hypothesis 1: Propensity to trust will be significantly related to perceived ability, but only for respondents with low experience.

Hypothesis 2: Propensity to trust will be significantly related to perceived benevolence, but only for respondents with low experience.

Hypothesis 3: Propensity to trust will be significantly related to perceived integrity, but only for respondents with low experience.

The theoretical model is presented in Figure 1. The hypotheses add the effects of direct experience to the model developed by McKnight and Chervany (2001). The model presented by McKnight and Chervany (2001) was

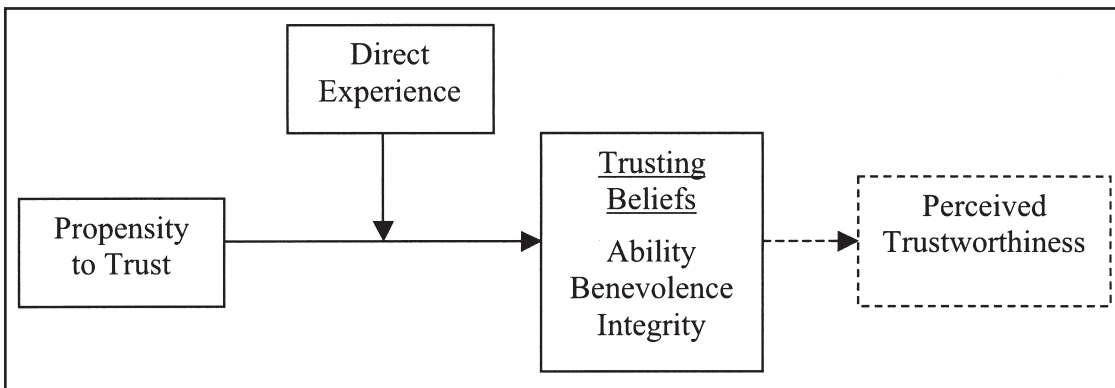


Figure 1

Model of Propensity to Trust, Direct Experience, and Trusting Beliefs

chosen since it has been previously adopted for research on trust in e-commerce (McKnight and Chervany 2002; McKnight, Choudhury, and Kacmar 2002a; McKnight, Choudhury, and Kacmar, 2002b; McKnight, Kacmar, and Choudhury 2002). Although McKnight and Chervany (2001) did not explicitly include experience in their model, they did comment in their paper that disposition to trust will only affect trust when novel, unfamiliar situations are encountered. The model is different from that presented by Lee and Turban (2001) and Mayer, Davis, and Schoorman (1995) in that, first, propensity to trust is treated in this study as an antecedent of trusting beliefs, consistent with prior research by McKnight and colleagues (McKnight and Chervany 2002; McKnight, Choudhury, and Kacmar 2002a; McKnight, Choudhury, and Kacmar 2002b; McKnight, Cummings, and Chervany 1998; McKnight, Kacmar, and Choudhury 2002) rather than as a moderating variable between trusting beliefs and trust; and second, the effects of experience are considered in this study. Although Internet shopping experience was not included in Lee and Turban's (2001) model, they did report that 95 percent of the respondents in their sample of 405 business school undergraduates majoring in management information systems at the City University of Hong Kong had no Internet shopping experience. Lee and Turban (2001), did, however, assess the effects of trusting beliefs on perceived trustworthiness. These relationships, consistent with the model developed by McKnight and Chervany (2001) are depicted in Figure 1 with dashed lines since they will not be tested in this study.

Instrument, Sample, Methodology, and Results
Instrument

A web survey was prepared for this study. The survey presented a series of mock e-commerce web pages. All of the mock web pages were identical except for the information cue. Information cues are used by Internet vendors to try to communicate their trustworthiness (Grabner-Kraeuter 2002; Murphy and Smart 2000; Warrington, Abgrab, and Caldwell 2000) and are particularly relevant for inexperienced Internet shoppers (Murphy and Smart 2000). The pages depicted a fictional e-commerce business named "Collectibles

Inc.” and included a subheading (“Your one-stop shop for collectibles”) and six pictures of collectible items (antique furniture, Elvis Presley postage stamp, old comic book, print of a classic painting, bell bottom jeans, and Yogi Bear slippers). The collectibles industry was chosen because it presents a relatively high risk of opportunistic behavior and, as such, emphasizes the importance of trust and trustworthiness.¹ Doney and Cannon (1997) note that some level of risk is needed for trust to be operative. Sheppard and Sherman (1998) add that benevolence is only relevant in the presence of considerable risks. Kimery and McCord (2002) add that trust has the effects of reducing risk perceptions and increasing risk-taking behavior.

Each of the 16 mock pages contained a different information cue.² The specific cues used are listed in Table 1. The use of information cues is consistent with McKnight and Chervany (2001) and others (McCole 2002) in positing that web vendor interventions that are appropriately communicated to potential e-commerce customers (Chadwick 2001) have the potential to impact trusting beliefs. The specific information cues used (from Murphy and Blessinger 2003) and the specific intervention or trust-building strategy they are intended to measure are presented in Table 1. Murphy and Blessinger (2003) developed their cues from the work of Murphy and Smart (2000) and focus specifically on the case of new and small entrepreneurial Internet ventures that have yet to establish a strong, readily recognizable brand name. The developed cues focus on new and/or small businesses’ ability to communicate similarity to trusted forms (isomorphism) as

well as their ability to strategically communicate transference or identification; competency, value, and goal congruence; the presence of structural assurances; and a history of fulfillment with other customers (Murphy and Blessinger 2003; Murphy and Smart 2000). While communicating a history of successful fulfillment with other customers is not possible for completely new ventures, it is possible and likely an important cue for a small business seeking to expand its geographic reach by venturing online (Murphy and Blessinger 2003; Murphy and Smart 2000).

Respondents were asked to indicate their perceptions of the mock vendor’s ability, benevolence, and integrity using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree) on the bottom of each of the 16 pages. Respondents were asked in the introduction to the survey and on each page of the survey to consider only the information available on the immediate page in answering the questions.

To measure perceived ability, respondents were asked to rate their agreement with the following statement: “I believe this e-commerce vendor has the ability to deliver goods as promised.” To measure perceived benevolence, respondents were asked to rate their agreement with the following statement: “I believe this e-commerce vendor has my best interests in mind.” To measure perceived integrity, respondents were asked to rate their agreement with the following statement: “I believe this e-commerce vendor follows acceptable business practices.” Each of

Table 1
Communicated Cues and Their Respective Strategies

Cue	Strategy Communicated
Certified compliance with all legal and regulatory agencies	Legal and regulatory compliance
Questions? Please call our showroom at 1-800-579-6548	Conforming to common expectations
Highest rating by MySimon.com	Endorsement (trust broker)
“We put our trust in Collectibles Inc.” —Mark and Mary Thompson	Testimonial
Member of the Chamber of Commerce and the Web Merchants Association	Business alliances
Over 30 years experience	Business and professional experience
We employ only the best trained and educated web technicians	Technical competency
Payment security assured	Payment security
We promise to keep your personal information confidential	Information security
Your money back if not fully satisfied	Product and/or service guarantee
All orders promptly delivered by two-day delivery. Order tracking available	Fulfillment process clarity
Over 10,000 orders have been successfully filled	Fulfillment
Make a purchase and a portion of the proceeds will go to the charity of your choice	General value and goal congruence
We offer superior quality and service at competitive prices	Clarifying value added
Hello, I’m the owner, Cathy. Please e-mail me with your comments	Personalization
Share your comments and read what other customers have said	Information sharing

these statements was developed to reflect the definitions of ability, benevolence, and integrity offered by Mayer, Davis, and Schoorman (1995). The responses to the different information cues were combined for this study. The coefficient alphas for the ability, benevolence, and integrity variables were .93, .94, and .92 respectively.

A pilot study was conducted using approximately 30 undergraduate students as subjects. The subjects completed a pencil and paper version of the web survey. Immediately after the surveys were completed, a feedback session was conducted to ensure that each information cue and question was interpreted as intended. Responses indicated good matches between the subjects' interpretation and understanding of each question and the corresponding theoretical and methodological underpinnings of each question.

The propensity to trust scale developed by Schoorman, Mayer, and Davis (1996) was used for this study. The propensity to trust scale was also administered online. Data for the scale were collected before the respondents viewed and reacted to the 16 trust-building information cues. Mayer and Davis (1999) used the same scale and found the coefficient alphas for the two waves of their study to be .55 and .66. This study found the coefficient alpha for the scale to be .63. Nunnally (1978) recommends

a threshold of .70 in establishing reasonable scale reliability. Accordingly, the eight items in the scale were factor analyzed to further investigate the relationships among the items. Results of the factor analysis using Varimax rotation are presented in Table 2. Table 2 also presents the exact wording of each item.

Two distinct factors with eigenvalues greater than one were found in the analysis. The two factors appear to reflect two different propensities: a propensity to trust and a propensity to distrust. This finding is consistent with the work of authors who contend that trust and distrust are different dimensions (Bigley and Pearce 1998; Koehn 2003; Lewicki, McAllister, and Bies 1998; McKnight, Kacmar, and Choudhury 2003). Given the poor scale reliability and the strong match between the factor analysis results and existing theory, the two factors (propensity to trust and propensity to distrust) were retained and used in the remainder of the study.

Internet purchase frequency was used as an indicator of experience and was measured by asking respondents to indicate the number of Internet purchases they had made over the preceding 12 months. One control variable was used in the study: trust in the Internet. This was deemed appropriate given the possibility that trust in the Internet in general may impact the more specific trust in a busi-

Table 2
Factor Analysis Using Varimax Rotation of Propensity to Trust Items

	Propensity to Trust	Propensity to Distrust
Most experts tell the truth about the limits of their knowledge.	.67	.03
Most people can be counted on to do what they say they will do.	.64	.24
Most adults are competent at their jobs.	.61	-.10
Most salespeople are honest in describing their products.	.59	.19
Most people answer public opinion polls honestly.	.58	.06
These days, you must be alert or someone is likely to take advantage of you.	-.03	.81
One should be very cautious with strangers.	.04	.75
Most repair people will not overcharge people who are ignorant of their specialty.	.33	.47
Eigenvalue	2.02	1.54
Percent of variance explained	25.29	19.26

ness-to-consumer e-commerce vendor. Respondents were asked, "In general, do you trust or distrust the Internet?" Possible responses ranged from "trust the Internet a great deal" to "distrust the Internet a great deal."

Sample

A sample of potential e-commerce customers was sought for this study. Initially, a two-stage process was used to identify a sample. To begin, an equal number of male and female names (100 each) were chosen from the Pregnancy Today Random Baby Namer website located at <http://www.pregnancytoday.com/names>. Each time the page is updated, the site returns 10 randomly selected male names and 10 randomly selected female names. The site purports to contain more than 12,000 names in its database reflecting all "flavors, colors and origins." Each name was then searched for in the World Email Directory located at <http://www.worldemail.com>. The search was limited to individuals in the United States to reduce language and/or cultural differences. Lee and Turban (2001) note that propensity to trust may be heavily influenced by culture. Although there is cultural diversity within the United States, there is no doubt increased cultural diversity when respondents are sought from additional counties. The World Email Directory reports to have more than 18 million e-mail addresses worldwide in its database and claims to be the "fastest growing search engine for people, businesses and organizations." This process resulted in 548 nonduplicate, individual entries with verifiable³ e-mail addresses.

Dillman's (2000) recommended procedures for conducting a web and/or Internet survey were followed. Each subject received a presurvey notice and three subsequent mailings (e-mails) prompting participation. Each of the three subsequent mailings contained a link to the web survey, which was hosted on a server at the researcher's institution. Contacts were organized into distribution lists and invitation messages were sent out via blind carbon copy (bcc) to increase efficiency and to avoid the presentation of multiple entries on the "to" line (Dillman 2000). A total of 216 usable responses were obtained from this process (39.4% response rate).

To supplement the responses, approximately 65 senior-level undergraduate students were asked to participate and to invite their contacts to participate.⁴ Although the exact number of persons contacted via this method is unknown, an impressive 258 usable responses were obtained from this process. Since this process was decidedly less random and less controlled than the initial collection method, analyses were initially run on the two samples separately. And, since the analyses yielded compara-

ble and consistent results, the two samples were subsequently combined into one sample.

Approximately 60 percent of the respondents were male, and the average age of the respondents was approximately 27 years old (range of 18–80). The average number of hours a week spent online was 14.89 (median of 8), and the average number of Internet purchases over the 12 months prior to the survey was 6.1 (median of 2). When asked, "In general, do you trust or distrust the Internet?" 3.1 percent indicated that they trust the Internet a great deal; 38.8 percent noted that they trust the Internet; 33.7 percent responded that they neither trust nor distrust the Internet, 11.8 percent reported that they distrust the Internet, and 2.2 percent stated that they distrust the Internet a great deal.

Methodology

To test the hypotheses that propensity to trust significantly affects perceived ability, benevolence, and integrity in the absence of experience, the sample was divided into three subgroups based on the frequency of Internet purchases over the prior 12 months. The first group (low experience) purchased goods or services over the Internet no more than once during the prior 12 months. The second group (medium experience) purchased goods or services over the Internet between two and five times during the prior 12 months while the third group (high experience) purchased goods or services over the Internet more than six times during the prior 12 months. The hypotheses were then tested by regressing the control variable, trust in the Internet, and the two propensity factors on perceived ability, benevolence, and integrity for each of the three groups. Support for the hypotheses will be found if significant relationships are found only for the low experience group.

Results

Results of the analysis are presented in Table 3. Support is found for hypotheses one and two. Propensity to trust was found to be positively related to perceived ability for the low experience group only, providing support for hypothesis one. For this sample, inexperienced individuals with a general tendency to trust gave higher evaluations of vendor ability than those with greater relative experience. Propensity to distrust was found to be negatively related to perceived benevolence for the low experience group only, providing support for hypothesis two. This finding indicates that inexperienced individuals with a general tendency to distrust gave lower evaluations of vendor benevolence than those with more experience. Regarding hypothesis three, no statistically significant relationships were found for any of the three experience groups. This

Table 3
Regression of Propensity to Trust Factors on Perceived Ability, Benevolence, Integrity, and Trustworthiness for Low, Medium, and High Internet Purchase Frequency Groups

	Ability	Benevolence	Integrity
Low frequency group (N=175)			
Trust in the Internet	.14	.10	.09
Propensity to trust	** .26	.12	.04
Propensity to distrust	-.07	*-.21	-.15
Medium frequency group (N=134)			
Trust in the Internet	-.10	-.03	-.14
Propensity to trust	-.10	-.08	-.08
Propensity to distrust	.08	.02	.04
High frequency group (N=96)			
Trust in the Internet	.01	.05	.03
Propensity to trust	.08	-.16	-.01
Propensity to distrust	-.03	.07	.07
Standardized regression coefficients reported *p<.05, ** p<.01			

suggests that propensity to trust and propensity to distrust may not significantly affect perceptions of integrity and that differences in experience level may not be relevant in clarifying the relationship.

Results of this study provide some support for the proposition that propensity to trust will be most salient in the absence of prior experience (Rotter 1971; Mayer, Davis, and Schoorman 1995; McKnight and Chervany 2001; McKnight, Cummings, and Chervany 1998). No statistically significant relationships were found for the medium and high frequency purchase groups. This finding suggests that propensity to trust is likely much more important for new and/or small Internet ventures than it is for well-established Internet ventures that consumers are more likely to have experienced.

The findings of this study add to the work of McKnight, Kacmar, and Choudhury (2003). The authors examined the

effects of disposition to trust and disposition to distrust on institution-based trust (perceptions of the structural assurances of the Web), perceived web site quality, willingness to explore a web site, and trusting intentions in the web site. McKnight, Kacmar, and Choudhury (2003) found that disposition to trust was positively related to structural assurance perceptions, perceived site quality, and willingness to explore, while disposition to distrust was significantly related to perceptions of deficient structural assurances and negatively related to trusting intentions. This study also found disposition to trust and disposition to distrust to be distinct and important to the cause of Internet vendors. This study adds to the work of McKnight, Kacmar, and Choudhury (2003) by including the important variables of trusting beliefs (McKnight and Chervany 2001) and by specifying the circumstances under which disposition to trust and distrust are most

salient (low experience). McKnight, Kacmar, and Choudhury (2003) identify a contribution of their paper as showing that disposition to distrust is stronger than disposition to trust in predicting high-risk behaviors. This paper supports that finding by showing that while propensity to trust was significantly related to perceived ability, propensity to distrust was found to be significantly related to perceived benevolence. Perceived benevolence, the perception that the trustee is considerate of and acts in the best interests of the trustor, is likely viewed as being more risky than perceived ability, which only requires that the trustor view the trustee as being capable of performing the required tasks. To believe that another is capable of delivering as promised is not the same as believing that the other will necessarily do so.

Two of the trust-building cues taken from Murphy and Blessinger (2003) and used in this study ("over 10,000 orders have been successfully filled" and "over 30 years experience"), although possibly appropriate for ventures expanding their existing business over the Internet, are likely not appropriate for entirely new ventures. To assess the generalizability of the results of this study to entirely new ventures, the analysis was repeated without the two cues that require business experience. The significant relationships were unchanged. Propensity to trust was found to be positively related to perceived ability for the low experience group only and propensity to distrust was found to be negatively related to perceived benevolence for the low experience group only. No other relationships were statistically significant. These findings suggest that the results of this study are generalizable to entirely new ventures as well as to existing ventures expanding by using the Internet.

Discussion

There has arguably never been more pressure on e-commerce businesses to gain the trust of Internet users. "When it comes to using the Internet for business transactions, gaining the trust of users has been a challenge" (Chapko 1999, 29). Despite the Internet's rapid growth, there are still millions of dollars lost everyday from Internet users abandoning their "shopping carts." Many web surfers simply lack the trust necessary to go ahead and click the purchase button (Hoffman, Novak, and Peralta 1999). Problems that inhibit trust in e-commerce, such as the inability to inspect goods and services before purchase and the lack of simultaneous exchange, are partially overcome by third-party information providers (Ba, Whinston, and Zhang 2003; Kimery and McCord 2002; Siyal and Barkat 2002). MySimon, for example, provides ratings of Internet stores that market products on their web site.

However, problems in establishing trust remain. Kimery and McCord (2002) found, for example, that frequently used third-party assurance providers did not significantly influence respondents' perceptions of web vendor trustworthiness. Koehn (2003) commented that while third-party information providers can help build trust, a favorable certification from a third party will not necessarily cause the web vendor to be seen as trustworthy by consumers.

This article has sought to improve our understanding of trust in business-to-consumer e-commerce by examining the effects of propensity to trust on consumer perceptions of e-commerce vendor ability, benevolence, and integrity. As Rotter (1971) noted, context matters when considering the effects of propensity to trust. Richness and theoretical grounding are further added to the study by including factors of trust or trusting beliefs (perceived ability, benevolence, and integrity). A contribution is also made to the literature by supporting Rotter's (1971) position that propensity to trust is most salient when experience is low. Although trust is likely strongest when prior experience is high (Doney and Cannon 1997; Garbarino and Johnson 1999), the effects of disposition or propensity to trust on trusting beliefs are strongest when experience is low. Insight has also been gained on the dimensionality of propensity to trust by finding factors that suggest a propensity to trust and a propensity to distrust.

For the practitioner, the results of this study suggest that, when trying to attract new customers, business-to-consumer e-commerce vendors should focus more effort on promoting perceived ability than perceived benevolence or integrity. Conversely, this study suggests that a relative focus on promoting perceived ability may not be needed when dealing with experienced customers.

Using mock web pages placed the study more in context and hopefully increased the realism of the study relative to conventional survey methods. The use of mock web pages also allowed for greater experimental control. By using mock web pages, the researcher was able to carefully control what the respondents were seeing and reacting to. Although a strength of the study, the use of mock web pages also has its limitations. Specifically, we were not able to simulate free navigation flow through different web pages. Also, by controlling the content, the mock sites no doubt lacked the complexity of typical business-to-consumer web sites.

Some recommendations for future research are suggested. A study of the effects of propensity to trust using real business-to-consumer web sites would be interesting. Such a study would add further contextual richness and

possibly increase the realism of the study. Considering different industries may also influence study results and may be another point for investigation. It is possible that different industries present different real and/or perceived risks in type and intensity. Differences in risk may consequently affect a potential online consumer's willingness to trust. This study found that experience matters in determining the effects of propensity to trust. However, the rate in which experience supplants the effects of propensity to trust has not, in this context, been adequately explored. Finally, Murphy and Blessinger (2003) found that trust-building information cues significantly improved trusting beliefs and perceptions of overall trustworthiness. Further research may find it useful to consider the combined effects of information cues and propensity to trust.

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Endnotes

1. A pretest confirmed the perceived relative risk of purchasing collectibles online. Respondents indicated greater perceived risk when buying collectibles online relative to buying t-shirts online.
2. Applets were used to speed the loading of what appeared to the respondent as successive pages.
3. Addresses that did not return a user unknown undeliverable message.
4. Although the use of student samples is often a questionable practice, it should be noted that college students are, on average, relatively very heavy Internet users (Anderson 2001). According to Anderson (2001), 28 percent of all Internet users are full-time students and the typical Internet-using student is on the Internet for 100 minutes a day.

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