Inexperience and Experience With Online Stores: The Importance of TAM and Trust

David Gefen, Elena Karahanna, and Detmar W. Straub

Abstract—An e-vendor's website inseparably embodies an interaction with the vendor and an interaction with the IT website interface. Accordingly, research has shown two sets of unrelated usage antecedents by customers: 1) customer trust in the e-vendor and 2) customer assessments of the IT itself, specifically the perceived usefulness and perceived ease-of-use of the website as depicted in the technology acceptance model (TAM). Research suggests, however, that the degree and impact of trust, perceived usefulness, and perceived ease of use change with experience.

Using existing, validated scales, this study describes a free-simulation experiment that compares the degree and relative importance of customer trust in an e-vendor vis-à-vis TAM constructs of the website, between potential (i.e., new) customers and repeat (i.e., experienced) ones. The study found that repeat customers trusted the e-vendor more, perceived the website to be more useful and easier to use, and were more inclined to purchase from it. The data also show that while repeat customers' purchase intentions were influenced by both their trust in the e-vendor and their perception that the website was useful, potential customers were not influenced by perceived usefulness, but only by their trust in the e-vendor. Implications of this apparent trust-barrier and guidelines for practice are discussed.

Index Terms—Disposition to trust, e-commerce, familiarity, perceived ease of use (PEOU), perceived usefulness (PU), trust, technology acceptance model (TAM).

I. INTRODUCTION

ATTRACTING new customers and then retaining them is critical for the success of e-commerce [33], [61]. Customer beliefs that an online vendor (e-vendor) can be trusted play a vital role in both attracting new online customers [25], [34] and later in retaining existing ones [61]. In particular, the assessment that the e-vendor can be trusted influences customer willingness, both among potential and repeat customers, to take part in e-commerce [34]. While this central role of trust holds for any commercial activity involving possible undesirable opportunistic behavior by a vendor [22], [48], [82], it is even more salient in the case of e-commerce. Customers cannot gauge trust cues from the e-vendor due to the limited richness of the web interface in comparison with face-to-face interaction

D. Gefen is with the Department of Management, LeBow College of Business, Drexel University, Philadelphia, PA 19104-2875 USA (e-mail: gefend@drexel.edu).

E. Karahanna is with the Management Information Systems Department, Terry College of Business, University of Georgia, Athens, GA 30602 USA (e-mail: ekarah@terry.uga.edu).

D. W. Straub is with the J. Mack Robinson School of Information Systems, Robinson College of Business, Georgia State University, Atlanta, GA 30302-4015 USA (e-mail: dstraub@gsu.edu).

[61]. Nonetheless, trust is crucial in an online environment because of the greater ease with which online customers, compared with bricks-and-mortar store customers, can be taken advantage of in an online environment, even without their knowledge [33], [34], as indeed happened with Amazon.com, who shared personal customer information with third parties without requesting customer consent [65], [66].

However, customer trust is not the only factor affecting e-commerce acceptance and subsequent use. A vendor's website requires an interaction with the vendor through the web interface. Thus, as in the case of other information technology (IT), the decision to adopt and then to continue using the website [27] also depends on its perceived usefulness (PU) and indirectly on its perceived ease of use (PEOU). These two antecedents are at the core of the technology acceptance model (TAM) [13], [14]. The importance of customer trust in the e-vendor, on the one hand, and the TAM antecedents of IT acceptance of a website, on the other, represent two inseparable, yet complementary, aspects of an e-vendor's website: as an e-vendor and as an IT.

The importance of customer trust and of the TAM antecedents of its website, however, change with experience. In an initial interaction, the assessment of whether another person or organization, in general, can be trusted depends, generally speaking, on a premeeting disposition to trust that develops through lifelong socialization [52], [67]. Once interaction with the trusted party takes place, this disposition is mitigated [7], [52]. Likewise, the relative importance of PU and PEOU changes as people get acquainted with a new IT and learn more of its capabilities [13], [35], [36]. As repeated use increases user familiarity with a system, ease of use perceptions should increase because of increased understanding of the interface, and at the same time, usefulness perceptions should become an increasingly important determinant of behavioral intent as the potential benefits from the system become more obvious with experience [13].

How then does the relative importance of customer trust in an e-vendor vis-à-vis TAM variables differ between potential e-commerce customers (i.e., new users) and repeat (i.e., experienced) customers? The objective of this study is to answer this question by expanding TAM [13] to include a familiarity and trust aspect of e-commerce adoption [25]. The extended model was tested with 378 potential and repeat online customers. Based on existing theory, *a priori* hypotheses are set forth regarding differences between the two groups. Potential and repeat customers are likely to differ in their trust in the e-vendor and in their TAM beliefs. Potential customer trust, lacking previous interaction, should depend primarily on their trusting disposition [52], [67], while repeat customer

trust should depend also on the nature of the relationship they have had with the e-vendor [25], [61], as it does in other cases of human interaction [7], [86]. Additionally, the PU and PEOU of potential customers who lack experience with the IT should depend only on a superficial acquaintance, while the PU and PEOU of repeat customers should be based on actual experience [36]. Consequently, different relationships between PU, PEOU, and purchase intentions are hypothesized between the two groups.

As predicted, data analyses show that the potential customers' decision to purchase from a well-known e-vendor depended on their trust in the e-vendor. This decision was not influenced by the PU of the website. This result supports the theoretical argument that establishing that one can be trusted is crucial in starting new relationships [7], [48]. It also corroborates the findings of previous research on Internet activity [34], [69]. Repeat customer decisions, on the other hand, depended on both trust in the e-vendor and on the PU of the website, indicating that for ongoing relationships both the usefulness of the website and trust in the e-vendor influence intended customer behavior.

II. LITERATURE REVIEW

A. Importance of Trust and Familiarity in E-Commerce

Trust is the expectation that other individuals or companies with whom one interacts will not take undue advantage of a dependence upon them. It is the belief that the trusted party will behave in an ethical [31], dependable [40], and socially appropriate manner [86] and will fulfill their expected commitments [48], [67] in conditions of interdependence and potential vulnerability [53], [68]. Trust is crucial in many business relationships and transactions [12], [22], [23], [30], [41], [56], [82]. This belief, in fact, determines the nature of many business and social relationships [7], [22], [48], [82].

This belief that the vendor can be trusted is also central to e-commerce [25], [38], [61] because of the absence of any practical guarantee that the e-vendor will not engage in undesirable opportunistic behaviors, such as unfair pricing, violations of privacy, conveying inaccurate information, unauthorized tracking of transactions, and unauthorized use of credit card information, to mention a few [25], [38], [61]. Such cases are not unheard of even among well-known e-vendors [65], [66]. Indeed, it has been noted that people would rather disengage themselves completely from those whom they do not trust [7], [48], an observation that also applies, apparently, to e-commerce customers [34], [61].

The need to trust is crucial in many economic and social transactions because of the ingrained need of people to understand the *social* environment in which they live, that is, to know what, when, why, and how other people with whom they interact will behave. Yet understanding this social environment is exceedingly intricate because all people are, in essence, free agents whose behavior cannot necessarily be predicted or understood, and whose actions and motives are not necessarily always rational. Faced with this overwhelming social complexity, on the one hand, and with a need to understand the behavior of others, on the other, people adopt a variety of social complexity reduc-

tion strategies. In the absence of a legally enforced regulated environment, trust and familiarity are among the most important of these social complexity reduction strategies [48]. Trust reduces social complexity by assuming away undesirable future behaviors in which the trusted party could, conceivably, indulge. It is a belief that the trusted party will behave appropriately, as expected [48]. The same logic applies to the Internet. Customers need to trust the e-vendor, i.e., assume that the e-vendor will behave in an ethical and socially acceptable manner. Otherwise, customers face an overwhelming social complexity that might hinder their ability to analyze the situation and consequently may refrain from purchasing [25].[1] A second and closely related strategy for reducing social complexity is familiarity, that is, prior experience with the what, who, how, and when of the interaction of interest. Familiarity reduces social complexity by creating an understanding of the **present** and what is happening. Contrariwise, the belief that the other party can be trusted reduces social complexity by assumptions about the **future** behavior of the trusted party [48]. In the case of an e-vendor, customer familiarity relates to an assessment of how well one knows the e-vendor and understands the current website procedures, such as when and how to enter credit card information, while trust deals with beliefs concerning the vendor's future intentions and behavior [25]. Research has shown that familiarity with the e-vendor and trust in it are distinct beliefs, and that each has an independent effect on purchase intentions from an e-vendor through its website [25].

Luhmann's theory [48] and empirical work based on his theory [25] show that when the trusted party is *a priori* trustworthy, familiarity with the trusted party builds trust. This is because familiarity creates the appropriate context within which the behavior of the trusted party is interpreted and within which beliefs about the trusted party's future conduct can take place [48]. In the case of online purchases, for example, familiarity with the e-vendor and with how to use the website increases trust in the e-vendor because familiarity puts trust into a context of what behavior to expect and when to expect it [25]. Assuming the e-vendor is indeed trustworthy, familiarity also reduces misunderstandings about what the e-vendor is doing through the website and, thus, reduces perceptions of being unfairly taken advantage of, which are beliefs that would otherwise reduce trust in the e-vendor [25].

Trust, in general, is likewise the result of a disposition to trust. This disposition is created through a lifelong socialization process that results in a tendency to, or not to, have faith in other people and to trust them [51], [52], [67]. When people enter a new relationship, i.e., before they have time to form an assessment of whether they can trust the other person or organization, this disposition is a major determinant of their trust. As the relationship matures and people have appropriate opportunities to assess whether they should trust the other person, the

[1]Trust is the product of many beliefs concerning the trusted party. Research has identified three primary beliefs that lead to this assessment: integrity, benevolence, ability [24], [29], [49], [50], and in some cases, predictability [52], [54], although not all these beliefs are necessarily applicable in all business scenarios [24]. In the case of new e-commerce customers, however, there is little basis for consumer assessments about the e-vendor's integrity, benevolence, and ability, if only because the lack of previous interactions makes such assessments impractical [25]. Accordingly, as in the familiarity and trust model of e-commerce, this study focuses on trust, rather than on the beliefs that lead to it.

importance of this disposition in determining trust diminishes [52].

In their theoretical work, McKnight *et al.* [52], expanding on Rotter [67], suggest that this disposition is composed of two closely related beliefs: 1) a faith in humanity, which reflects a person's belief that others are typically well-meaning and reliable (e.g., [64] and [83]) and 2) a trusting stance that reflects a personal belief that irrespective of whether people are reliable or not, one will obtain better outcomes by dealing with people as though they are well-meaning and reliable [52].[2] Subsequent empirical research dealing with e-commerce customers as well as research carried out by McKnight *et al.* [52] supports this proposition. Online customer disposition to trust influences their trust in an e-vendor while showing that faith in humanity and a trusting stance are one inseparable construct, at least in this context [25].

Disposition to trust is especially important for online customers. In an interpersonal business setting, as opposed to the Internet, an individual may feel they can trust others who they have not yet met based on social cues, such as the sound of their voice, their appearance, their known reputation, and other visual and linguistic cues. These cues form an initial impression of the others' benevolence, malevolence, competence, or incompetence [15]. Such social cues are generally missing in the Internet environment [25], [61], forcing new customers to base their trust primarily on the e-vendor's reputation and size [34], familiarity with the e-vendor [25], and on their socialized disposition to trust [25].

Previous research supports the theory. Customer trust in and familiarity with an e-vendor influence purchase intentions for buying from that specific e-vendor and both familiarity and disposition to trust influence customer trust in the e-vendor [25].

B. Potential Customer Trust Versus Repeat Customer

A closer look at the concept of trust, however, suggests that there may be reasons to differentiate between potential customers and repeat customers. People's initial trust in others, that is before they have had the opportunity to interact with the trusted party, is strongly influenced by the trusting party's disposition to trust [52], [67]. Later on, as people interact with the trusted party, trust is more influenced by the nature of previous interactions with the trusted party [52], [67], [84]. Perhaps, needless to say, disposition to trust should be more important in the former case because no previous interactions have occurred [52].

In the case of customer trust in an e-vendor, a logical train of thought suggests that disposition to trust should more strongly affect potential customers' trust, simply because there is little else on which to base this trust. Repeat customers, on the other hand, have prior experience with the e-vendor. Their trust, therefore, should be shaped primarily by actual experience, making disposition to trust less important, but, perhaps, still a significant predictor of their trust in the e-vendor.

C. TAM and E-Commerce

An alternative theory base for explaining online purchase intentions is an adaptation of Davis' TAM. TAM [13], [14] is presently the preeminent theory of technology acceptance in IS research. Through numerous empirical tests, TAM has been shown to be a parsimonious yet robust model of technology acceptance behaviors. TAM has been validated across a wide range of information technologies (see [27] for a summary of this literature), across levels of expertise [75], and across certain countries (e.g., [63] and [72]). Recent studies suggest that this model also applies well to e-commerce [27].

TAM posits that intention to voluntarily accept and use a new IT is determined by two beliefs: 1) the perceived usefulness of using the new IT, which is a measure of the individual's subjective assessment of the utility offered by the new IT in a specific task-related context, and 2) the perceived ease of use of the new IT, which is an indicator of the cognitive effort needed to learn and to utilize the new IT. According to TAM, PEOU primarily influences intended acceptance through its effect on PU [14] possibly because PU, rather than PEOU, directly relates to the primary intended outcome of using the IT [27]. That PEOU affects IT use through PU has been supported by a majority of TAM studies including the decision to adopt e-commerce purchase [27].

D. Potential Customers Versus Repeat Customers in View of TAM

Recent studies comparing new versus experienced users of IT suggest the need to refine TAM based on the extent of experience with the focal IT (e.g., [36] and [74]). The applicability of such an adaptation to e-commerce is discussed next.

1) Perceived Usefulness and Behavioral Intention (Purchase Intentions): Even though most empirical TAM and TAM-related studies have found a consistent relationship between PU and behavioral intent (exceptions include Lucas and Spitler [47] and Jackson *et al.* [32]), empirical evidence examining the relative importance of perceived usefulness in determining usage intentions across experienced and inexperienced users is mixed. This is particularly so in studies that include social considerations such as social norms in addition to the TAM beliefs PU and PEOU. Some comparative studies found no significant differences (e.g., [77] and [80]). In other studies, usefulness beliefs were more salient for inexperienced users than experienced users [75] while in yet other studies, the opposite was found [36].[3]

While the underlying causes of these differences are not immediately obvious, some viable explanations for the inconsistencies may include the following:

a) differences in settings and respondents (e.g., the relative influence of social considerations such as social norms is typically more prevalent in organizational environments rather than university settings);
b) differences in focal technologies;
c) differences in the groups compared (e.g., comparing inexperienced with experienced users where both groups had

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[2]McKnight *et.al* [52], in accordance with their definition of trust as a multidimensional construct dealing with integrity, benevolence, ability, and predictability, argue that this disposition should, in theory, affect all four dimensions of trust. Building on Rotter [67], McKnight *et.al* [52] argues that this disposition should directly affect trust in the trusted party.

[3]In the Karahanna [36] study, the effect of PU on intention was through a formative latent attitude construct.
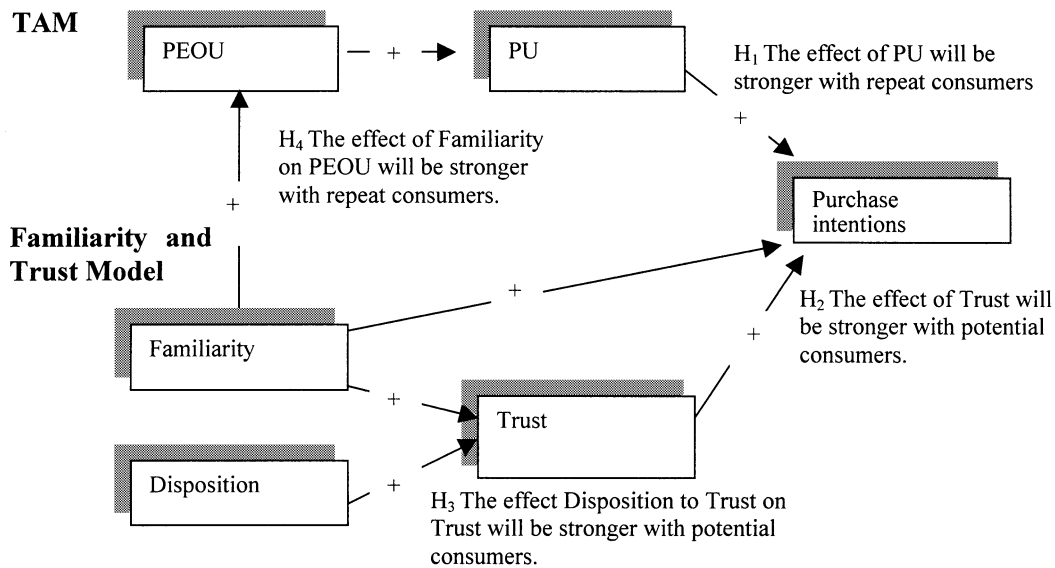
Fig. 1.   Research model.

direct experience with the target system versus comparing potential adopters with users where potential adopters had no direct experience with the target system);

d) differences in the theoretical models employed.

Despite this contradictory empirical evidence, theory provides a coherent description of how experience moderates the relationship between perceived usefulness and intended behavior. Theory suggests that the relationship between perceived usefulness and behavioral intent should become stronger as individuals gain direct experience with the IT. Specifically, beliefs and attitudes may be formed based on information concerning past behavior, affect, and cognition [85]. Preadoption beliefs held by potential users are based primarily on indirect experience with IT and are thus susceptible to change. Postadoption beliefs held by experienced users (such as repeat customers) are based primarily on actual experience. Empirical evidence suggests that beliefs and attitudes formed by direct experience are more enduring and predict behavior better than beliefs/attitudes formed by indirect experience [17], [18]. Through first-hand experience, users are able to more readily and confidently assess the efficacy of the IT to meet their needs. In addition, attitudes and beliefs based on direct experience are more readily *accessible* in memory, resulting in stronger belief/attitude-behavior ties. Thus, in the context of this research, theory would suggest that the relationship between perceived usefulness and behavioral intent would be stronger for repeat (i.e., experienced) customers than for potential (i.e., new) customers.

2) Perceived Ease of Use and Behavioral Intention (Purchase Intentions): The relationship between ease of use perceptions and intended IT usage is typically mediated by perceived usefulness for experienced users of an IT (e.g., [1], [13], [27], [37], [73], and [79]). Among web surfers, when the primary reason for using the website was to purchase products, perceived ease of use ceased to be a significant predictor of behavioral intentions, presumably because it does not contribute

directly to the quality of the main reason the website was used for, the quality of the product that was being bought [27].[4]

III. RESEARCH MODEL

As noted earlier, previous research shows that users consider both information technology and trust in the e-vendor in their responses to e-commerce. To account for both types of antecedents and study how their relative weight changes as a result of actual purchase activity at the site, TAM has been integrated with a familiarity and trust model of e-commerce [25] leading to the research model presented in Fig. 1. This integrated model suggests that vendor websites reflect user interactions with both e-vendors as an organization and with its interface as an IT. Combining the two models in this manner captures the inseparable nature of a website being at the same time both a means of interaction with the e-vendor and, hence, the need to trust its vendor, and an IT and, hence, the importance of its perceived technical attributes. Thus, the integrated model combines antecedents from both theories with the objective of better explaining purchase intention from online vendors. In doing so the model proposes both the TAM and the familiarity and trust relationships found in previous research, but focuses on exploring differences in these relationships and in their interplay between potential and repeat customers of an e-vendor website.

Our research model proposes that a familiarity and trust model will take precedence among potential customers. Potential customers are defined in this context as customers who have not used the e-vendor's website. This is in accordance with Karahanna *et al.*'s [2] definition of new users of an IT. Arguably, trust should be of greater importance with potential

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[4]Perceived ease of use directly affects behavioral intentions also when the users are novices to the technology, during initial usage of new technology [13], with inexperienced users [77], and with potential adopters [36], [73]. This study dealt only with users who were experienced with the technology itself, as to whether or not they decided to actually buy from the e-vendor.

customers because among potential customers there is greater social uncertainty regarding their interaction with the e-vendor in the absence of direct experience. Since there is a general reluctance to participate in economic transactions with others whom one does not trust (until that uncertainty is reduced via trust), considerations of how useful or easy to use the website might be seem of secondary importance. The research model also predicts that website considerations, such as the beliefs suggested by TAM, PU, and PEOU, will become important among repeat customers once actual experience with the vendor has established that the vendor can be trusted, at least in part. Once the trust barrier has been assessed by the user, then s/he can give consideration to detailed website issues such as how much effort is required to use the website and how useful the website may be in helping search for, locate, and purchase a product.

Fig. 1 displays the research model. Paths based on TAM and on the familiarity and trust model are presented with simple arrows since they have been established in prior research and we are not presenting them as hypotheses in the present research. Paths dealing with hypothesized differences between potential and repeat customers as suggested by the related hypotheses are labeled.

In the interest of brevity, the hypotheses relating to TAM and to the familiarity and trust model are not explicated in detail. Suffice it to say, that TAM suggests, replicating previous research [27], that PEOU will increase PU, and that PU will increase purchase intentions, for both potential and repeat customers. The familiarity and trust model suggests, as in previous research [25], that both trust and familiarity with an *a priori* trustworthy e-vendor will increase purchase intentions, and that this trust will be increased through familiarity and a propensity to trust. The next section discusses the hypotheses relating to the effects of the IT acceptance antecedents in both TAM and in the familiarity and trust model change with experience.

A consistent finding across TAM studies has been that PU is a significant and important antecedent of intended IT usage since users make a rational, calculated assessment of the benefits of using a new IT. The strength of these effects should be stronger with repeat customers because potential customers base their usefulness perceptions on relatively superficial acquaintance with its features. In fact, some studies using inexperienced users found no relationship between PU and intended behavior [32]. As previously discussed, direct experience with the website leads to more informed and confident assessment of the IT capabilities and efficacy in meeting customer needs resulting in a stronger relationship between perceived usefulness and purchase intentions [17], [18].[5] Thus, we propose the following.

H₁: The link between PU of the website and purchase intentions is stronger among repeat customers than among potential customers.

The effect of trust also changes with experience. Trust is especially strong in determining behavioral intentions before ac-

tual interactions take place [52]. This is also the case in e-commerce because of the greater social uncertainty prior to actual experience with the e-vendor, which is an experience that might expose the trusting party to possible opportunistic behavior by the e-vendor and, hence, the greater need to rely on trust in the absence of experience based evidence about the e-vendor [25]. While a degree of trust is needed in any business interaction [22], [82], it is especially needed when the parties involved have little acquaintance with each other and yet expose themselves to possible opportunistic behavior [86], arguably more the case with potential than with repeat customers who have already learned that the trustworthy e-vendor can be trusted.[6]

H₂: The link between trust in an *a priori* trustworthy e-vendor and purchase intentions is stronger among potential customers than among repeat customers.

According to the familiarity and trust model, trust itself is the product, among other things, of familiarity with the e-vendor and with the specifics of the website interaction, on the one hand and of a more general socialized disposition to or not to trust in others on the other. The latter antecedent (disposition to trust) is especially important in the formation of initial trust, that is, trust before any actual interaction occurs. This is posited to occur because of the lack of specific trust building cues [52] and familiarity with the specific party involved [86]. What needs to be taken into account is that, as previously discussed, repeat customers' trust in the e-vendor is also shaped through their experience, making the disposition to trust of repeat customers a less important predictor of trust [52], [67], [84] than for potential customers who have little else upon which they can base their trust.

H₃: The link between disposition to trust and trust in the e-vendor is stronger among potential customers than among repeat customers.

In addition to their shared effect on purchase intentions, TAM and the familiarity and trust model are also related to each other in that familiarity should also affect PEOU. PEOU specifies how easy it is to use the IT and how easy it is to learn how to use it [13]. Familiarity (being knowledge based) refers to one's level of knowledge of the e-vendor and of the e-vendor's procedures as manifest through its website. Arguably, the latter aspect of familiarity (familiarity with the e-vendor's website) should also increase customer knowledge of how to use it, and so increase user perceptions that it is easy to use. Accordingly, familiarity should increase users' PEOU if only because it is easier to learn and use a system with which one is familiar. Thus, we propose that familiarity with a website influences customer ease of use perceptions.

Repeat customers of the e-vendor, by virtue of their prior interactions with the website, should have much better formed ease of use perceptions based on hands-on experience. Thus, their ease of use perceptions are anchored in their increased familiarity with the website. On the other hand, it is quite possible that potential customer perceptions of familiarity with the e-vendor were formed based on second-hand information. Thus, potential customer ease of use perceptions, in the absence of extensive hands-on direct experience with the website or its primary activity, are likely more heavily influenced by their com-

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[5]Even among potential customers who have window-shopped at the website but have not purchased there, this hypothesis should hold because these customers have not been exposed to the primary purpose of the website, that is, to facilitate online purchase and are thus considerably less informed about its usefulness.

[6]The study and hypotheses are limited to explicitly trustworthy e-vendors.

puter self-efficacy [79] than by their familiarity. Thus, we hypothesize the following.

H_4: The link between familiarity and PEOU is likely to be stronger among repeat customers than among potential customers.

IV. RESEARCH METHOD

A. Procedure

The research design carefully replicated the free-simulation methodology research design used in Gefen's e-commerce familiarity and trust model [25] with the addition to the experimental instrument of the standard TAM scales. In a free-simulation experiment, subjects are exposed to events that simulate the complexity of real-world scenarios and respond naturally to tasks before answering questions about beliefs, attitudes, and observation [21]. In a free-simulation, treatments are not preset, rather, subjects choose naturally how to behave and respond to the tasks [21].

The procedure was as follows: M.B.A. and senior undergraduate students taking classes in an Internet-connected computer lab logged in to the Internet during the class session, navigated to www.amazon.com, and searched for their textbook. They went through the process of buying without actually completing the transaction. Having completed the experimental task, subjects filled out an instrument. Prior to taking part in this free-simulation experiment, students were told that the study dealt with e-commerce and was being conducted as part of a set of e-commerce studies in the school. Only after returning all the research instruments were subjects debriefed about the objective of the study.

The activity was performed during class hours in a computer lab. All subjects, including those who had never actually used Amazon.com, were previously aware of the e-vendor. Each student had exactly the same hardware and software configuration, and was connected through the same network. In this way, exogenous variance relating to hardware issues, network response time, browser, purchase activity, and so on, was controlled.

Given these procedures, it is perhaps also clear that the research design controlled for factors not part of the research model, such as store size and reputation [34]. By using a single, highly popular website, at the time one of the most active and reputable in the world [76], the research design avoided variance on store size and reputation, arguably avoiding confounds having to do with the e-vendor's stability and brand name.

B. Pilot Test

The objective of the pilot test was to ensure the validity of the questionnaire items and the simulation procedure. Specifically, the pretest verified that the questionnaire items were understood as intended through class discussions after the questionnaires were returned and that the scales had acceptable psychometric properties. The pilot test was also designed to determine whether perceived risk should also be included in the research model. Previous research has suggested that the effect of customer trust on purchase intentions is possibly mediated by perceived risk, at least when the e-commerce activity involves inexperienced customers who examine a variety of websites some of

which are not well known [34]. Although an in-depth examination of perceived risk was not in the scope of the present study, and although risk is, arguably, of less consequence when using a well known and established e-vendor such as Amazon.com [76], the possible mitigating role of perceived risk on purchase intentions could be and was tested prior to the main experiment.

Using the same procedure as in the final data collection, a pretest of 49 M.B.A. students working with Amazon.com showed that while risk and customer trust were distinct constructs and significantly correlated, risk and purchase intentions were not.[7] These results support the choice of Amazon.com for the study in that it represents a suitable environment for testing our combined theory. If trust and familiarity still turn out to be important in this low-risk (and low-variance) environment, then they should demonstrate even stronger effects in a varying risk setting with a high variance. This result is not surprising given that there is arguably little real risk and little concern about risk when conducting commerce with a well-established e-vendor such as Amazon.com. It is definitely less than with unknown small websites. Moreover, online book purchase, in general, is perceived as among the least risky online purchase activities [6]. Since the risk was thus controlled, perceived risk was not seen as a confound and not included as a variable in the main experiment.

C. Instrument Validation

The study used existing validated scales. All items were set in a seven-point scale ranging from Strongly Agree (1) to Strongly Disagree (7). Validated measures for familiarity, disposition to trust (DIS), trust (TR), and purchase intentions (IPUR) were adopted from Gefen [25] who also used Amazon.com in a free-simulation experiment (see Table III for instrument items). Familiarity (FAM) refers to familiarity with the e-vendor Amazon.com and with its website. Disposition to trust deals with faith in humanity and the belief that people are generally trustworthy. Trust relates specifically to customer trust in Amazon.com. Scales dealing with PEOU and PU were adapted from TAM [13] using the same adaptation as in previous research on e-commerce [28]. The PU items combine searching and purchase activities because purchase at Amazon.com requires a preceding search. Given that Amazon.com is concurrently both the name of the website and the name of the e-vendor, it was inevitable that some of the items from the adapted scales used Amazon.com as the name of the website (in the PU and PEOU scales), while others used it as the combined name of the e-vendor combined with its portal (in the trust, familiarity, and purchase intentions scales). Because of this blending of purposes, appropriate headings were added to each group of items in the experimental instrument to verify

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[7]Perceived risk of doing business with the particular vendor was measured with four items: 1) "There is a significant threat doing business with Amazon.com;" 2) "There is a significant potential for loss in doing business with Amazon.com," 3) "There is a significant potential for loss in doing business with Amazon.com," and 4) "My credit card information may not be secure with Amazon.com." The convergent and discriminant validity of perceived risk, trust, and purchase intentions were verified with an exploratory factor analysis. The correlation between perceived risk and purchase intentions was insignificant ($r = -0.07, t$−value $= 0.639$). On the other hand, the correlation between trust and purchase intentions was significant ($r = 0.73, t$−value<0.001).

TABLE I
CONSTRUCT MEANS (STANDARD DEVIATIONS)

	N	Purchase Intentions	PEOU	PU	Familiarity	Disposition to Trust	Trust
Potential Customers	139	3.46 (1.42)	2.31 (1.12)	2.70 (1.29)	3.64 (1.62)	3.28 (1.56)	3.37 (1.14)
Repeat Customers	178	2.45 (1.24)	1.95 (.86)	2.30 (1.10)	2.54 (1.48)	3.35 (1.12)	3.04 (1.06)
T (p-value)		6.66**	3.11**	2.84**	5.96**	-.55	2.47*

* significant at .05 level   ** significant at .01 level
Scales: 1 (strongly agree) to 5 (strongly disagree)

that the term Amazon.com was appropriately understood. Accordingly, the PU and PEOU items were grouped separately with a heading relating them explicitly to the website.

In a confirmatory factor analysis, all items in the above scales were retained, except for one PU item (PU1) that cross-loaded highly on the PEOU scale. Since the PLS structural model (for hypothesis examination) showed an identical pattern of significant paths and an almost identical set of coefficients whether PU1 was included or not, the remainder of the analyses were performed without PU1. Indeed, in other e-commerce TAM studies, this same PU1 item also cross-loaded on the PEOU scale [28].

The respondents were mainly in their early twenties (40.1%), late twenties (32.5), and early thirties (11%). The 317 respondents were 46% women and 52% men, the remainder declining to report their gender. Respondents who had previously used Amazon.com had, on average, purchased books seven times, indicating that the sample group was composed of many seasoned buyers, on the whole. Based on self-reported use of Amazon.com, the sample was split between repeat customers and potential ones. Thus, individuals who have never used Amazon.com were classified as potential customers whereas individuals who had previously used it were classified as repeat consumers.

Descriptive statistics for the research constructs are presented in Table I. As can be seen from Table I, potential customers and repeat customers differ significantly on five of the six constructs of the study. Potential customers are naturally less familiar with the e-vendor. Compared to repeat customers, they view purchasing via Amazon.com as less useful as well as less easy to use, their trust in Amazon.com is lower, and they have lower intentions to purchase from it. However, individuals in the two groups have similar levels of disposition to trust, meaning that is it probably not disposition to trust that differentiates the two groups. The last finding rules out a group nonequivalency threat to internal validity [11].

V. RESULTS

The research models were analyzed using partial least squares (PLS), with separate models for potential customers and repeat customers. A latent structural equations modeling technique, PLS uses a component-based approach to estimation. Because of this, it places minimal demands on sample size and residual distributions [8], [28], [45]. Through its confirmatory factor analytical capability, PLS was used to assess both the psychometric properties of all scales and, subsequently, to test the structural relationships proposed in the model.

A. Data Analysis of the Measurement Model

The psychometric properties of scales in PLS were assessed in terms of item loadings, discriminant validity, and internal consistency (reliability). Both item loadings and internal consistencies greater than 0.70 are considered to be acceptable [5], [20]. As can been seen from the confirmatory factor analysis (CFA) results in Tables IV (potential customers) and V (repeat customers), all items loaded very well on their corresponding factors.[8] Moreover, the composite reliability scores shown in Tables II(a) and (b), all exceeded the 0.70 criterion [5].

Discriminant validity is demonstrated in PLS when [8] 1) indicators load higher on their corresponding construct than on other constructs in the model (i.e., loadings should be higher than cross-loadings), and 2) the square root of the average variance extracted (AVE) is larger than the interconstruct correlations (i.e., the average variance shared between the construct and its indicators is larger than the variance shared between the construct and other constructs). As shown in Tables II(a) (potential customers) and (b) (repeat customers), all indicators loaded more highly on their own construct than on other constructs. Furthermore, comparing the interconstruct correlations and square root of AVE (leading diagonal) in Tables II(a) and (b) revealed that all constructs share considerably more variance with their indicators than with other constructs. Tables IV and V show that each item loads considerably higher on its assigned construct than on the other constructs. Collectively, these results suggest that the scales employed in this study exhibited discriminant validity and acceptable psychometric properties.

B. Data Analysis of the Structural Model

PLS was also used to test the structural model. Path coefficients and explained variances for the research model of the study are shown in Figs. 2 (potential customers) and 3 (repeat customers). Path coefficients in PLS are similar to standardized beta weights in regression analysis [8], [45].

The analysis shows that potential customer purchase intentions were influenced by their trust in the e-vendor but not by their perceptions of website usefulness. On the other hand, repeat customer purchase intentions were influenced by both their

[8]To perform CFA in PLS, the following procedure was followed: PLS provides the loadings for the construct's own indicators. To calculate cross-loadings, factor scores for constructs (provided by PLS) were correlated with all other indicators to calculate cross loadings of other indicators on the construct.

TABLE II
(a) CORRELATIONS OF LATENT VARIABLES FOR POTENTIAL CUSTOMERS.* (b) CORRELATIONS OF LATENT VARIABLES FOR REPEAT CUSTOMERS*

	PLS Reliability	Purchase Intentions	PU	PEOU	Trust	Familiarity	Disposition to Trust
Purchase Intentions	.904	**0.906**					
PU	.963	0.180	**0.917**				
PEOU	.968	0.086	0.749	**0.913**			
Trust	.953	0.505	0.407	0.319	**0.905**		
Familiarity	.891	0.258	0.258	0.202	0.298	**0.896**	
Disposition to Trust	.927	0.371	0.172	0.149	0.495	0.200	**0.847**

*Leading diagonal shows the square root of the variance shared between the constructs and their measures.

(a)

	PLS Reliability	Purchase Intentions	PU	PEOU	Trust	Familiarity	Disposition to Trust
Purchase Intentions	.887	**0.892**					
PU	.958	0.382	**0.907**				
PEOU	.954	0.345	0.720	**0.882**			
Trust	.912	0.358	0.390	0.419	**0.881**		
Familiarity	.916	0.351	0.477	0.435	0.314	**0.921**	
Disposition to Trust	.909	0.085	0.129	-0.011	0.371	0.082	**0.816**

*Leading diagonal shows the square root of the variance shared between the constructs and their measures.

(b)

trust in the e-vendor and by their perceptions of the website's usefulness. Since, the relationship between PU and purchase intentions is significant for repeat customers but not significant for potential customers, support is provided for H_1. As expected, trust in both data sets had significant effects on purchase intentions. The beta is more than twice as strong, however, with potential customers. Chow's test [9] of difference of path coefficients across two samples shows that this difference is significant, supporting H_2 [F-statistic $(2304) = 19.2$, significant at 0.01]. Also disposition to trust influences trust in the e-vendor in both datasets but is significantly stronger for potential customers than for repeat customers, supporting H_3 [F-statistic $(2307) = 6.2$, significant at 0.01]. Also as hypothesized, familiarity increases PEOU in both datasets. However, even though the beta is twice as strong with repeat customers, Chow's test [F-statistic $(2309) = 1.82$, not significant at 0.05] shows that this difference is nonsignificant. Thus, H_4 is not supported.

VI. DISCUSSION

A. Summary of Results

The critical linkages to purchase intentions provided reasonably good explained variance: 27% for potential customers and 22% for repeat customers. The explained variance of PU was above 50% in both samples. The explained variance for PEOU was 19% with repeat customers but only 4% with potential customers. The marked higher explained variance makes sense in this case because repeat customers were significantly more familiar with the website. These results provide reasonably good support for the theoretical refinements offered in this paper. However, what exactly do these findings mean?

Trust in e-vendors is emerging as an important aspect of e-commerce adoption as an increasing number of customers engage in transactions over the web. However, trust has not hitherto been a component of the widely employed models explaining technology acceptance like TAM. The objective of this study was to develop an integrated model to examine the role of customer experience on the relative importance of trust in an e-vendor vis-à-vis the TAM constructs of its website as customers become familiar with and engage in transactions on a commercial website.

The empirical findings provide interesting insights. Both trust in the e-vendor and the perceived usefulness of the website appear to play an important role in determining purchase intentions on a specific website. However, the relative importance of the two changes over time. Among the constructs studied, for potential customers, familiarity and trust are the sole determinants of purchasing intentions while perceptions of website usefulness were not a significant consideration. This is consistent with prior research that suggests that social factors alone (e.g., social norms) initially influence potential adopter usage intentions [36]. As users gain experience with the technology and the system, however, more cognitive considerations emerge and gain significance in determining their intended behavior.

The lack of a significant link between perceived usefulness and purchasing intentions for potential customers contradicts some prior TAM studies which have found this relationship to be significant, irrespective of experience [13], [44], [80], [81] and which have found TAM relationships to hold in e-commerce [27], [42], [43]. It is quite possible that, while irrespective of experience and in the absence of additional constructs, TAM relationships do hold, the same is not true when additional constructs are added to the model. Specifically, for potential adopters or customers, where the level of uncertainty surrounding the behavior is high, it is possible that uncertainty reducing constructs such as trust and social norms become primary considerations. Additional research is required to shed

TABLE III
CONSTRUCT MEANS (STANDARD DEVIATIONS)

Please circle the appropriate category:

Gender	M , F
Age group	15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 50-54, 55-59, 60-64, 65-69 above 70
How many times have you used Amazon.com?	

Please indicate your agreement with the nest set of statements using the following rating scale:

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat disagree	Disagree	Strongly disagree

Code	Item	Agree .... Disagree
	Assessing the Web-site	
PEOU1	Amazon.com is easy to use	1 2 3 4 5 6 7
PEOU2	It is easy to become skillful at using Amazon.com	1 2 3 4 5 6 7
PEOU3	Learning to operate Amazon.com is easy	1 2 3 4 5 6 7
PEOU4	Amazon.com is flexible to interact with	1 2 3 4 5 6 7
PEOU5	My interaction with Amazon.com is clear and understandable	1 2 3 4 5 6 7
PEOU6	It is easy to interact with Amazon.com	1 2 3 4 5 6 7
PU1	Amazon.com is useful for searching and buying books	1 2 3 4 5 6 7
PU2	Amazon.com improves my performance in book searching and buying	1 2 3 4 5 6 7
PU3	Amazon.com enables me to search and buy books faster	1 2 3 4 5 6 7
PU4	Amazon.com enhances my effectiveness in book searching and buying	1 2 3 4 5 6 7
PU5	Amazon.com makes it easier to search for and purchase books	1 2 3 4 5 6 7
PU6	Amazon.com increases my productivity in searching and purchasing books	1 2 3 4 5 6 7
	Assessing the Vendor	
FAM1	I am familiar with Amazon.com	1 2 3 4 5 6 7
FAM2	I am familiar with inquiring about book ratings at Amazon.com	1 2 3 4 5 6 7
TR1	Even if not monitored, I'd trust Amazon.com to do the job right	1 2 3 4 5 6 7
TR2	I trust Amazon.com	1 2 3 4 5 6 7
TR3	I am quite certain what to expect from Amazon.com	1 2 3 4 5 6 7
IPUR1	I would use my credit card to purchase from Amazon.com	1 2 3 4 5 6 7
IPUR2	I am very likely to buy books from Amazon.com	1 2 3 4 5 6 7
DIS1	I generally trust other people	1 2 3 4 5 6 7
DIS2	I tend to count upon other people	1 2 3 4 5 6 7
DIS3	I generally have faith in humanity	1 2 3 4 5 6 7
DIS4	I feel that people are generally reliable	1 2 3 4 5 6 7
DIS5	I generally trust other people unless they give me reason not to	1 2 3 4 5 6 7

Thank You!

- Original Instrument did not contain the Code column. The order of the items has also been rearranged to make reading easier.
- FAM = familiarity
- TR = Trust
- IPUR = Intended Purchase
- DIS = Disposition to Trust
- PU = Perceived usefulness of the website
- PEOU = Perceived ease of use of the website

more light on how customer beliefs and perceptions evolve over time.

More specifically, the results of this study suggest that there may be a ***trust-barrier*** in the adoption of e-commerce separating potential and repeat customers. The data suggest that it is important to initially build potential customer trust in the e-vendor, because trust affects these customers' purchase intentions while considerations of website usefulness influence are of less importance to them. On the other hand, trust in the e-vendor is important even with repeat customers but with these customers the perceived usefulness of the website is also important.

B. Limitations

Before discussing the implications of the study, some of its limitations need to be addressed. The study has tested the re-

search model in the context of an arguably trustworthy and well-known e-vendor Amazon.com. Even though we believe that the study has provided some valuable insights, generalizability of its findings might be limited to e-vendors that are, indeed, trustworthy. We have posited that actual e-vendor trustworthiness will moderate the relationship between familiarity and trust in the sense that familiarity with e-vendor and its website, can either increase or decrease trust in an e-vendor, depending on whether the e-vendor is indeed trustworthy. Examining the relationships and the relative importance of the study constructs across sites that vary in their trustworthiness would be a fruitful direction for future research.

Another issue is that by splitting the sample based on self-reported use, we created a category of repeat customers by pooling together customers who had used the website for purchase ac-

TABLE IV
CONFIRMATORY FACTOR ANALYSIS FOR POTENTIAL CUSTOMERS

	Trusting Disposition	PEOU	Familiarity	PU	Trust	Purchase Intentions
DIS1	.8882	.1243	.1959	.1403	.4688	.3322
DIS2	.8066	.0070	.1225	.0432	.3617	.2974
DIS3	.8722	.2044	.1440	.1726	.4801	.2327
DIS4	.8599	.1192	.1691	.1262	.4044	.3803
DIS5	.7871	.2378	.1891	.1785	.3184	.3146
PEOU1	.0830	.8717	.1333	.6496	.3081	.1067
PEOU2	.1512	.9362	.1878	.7018	.3130	.0802
PEOU3	.2009	.9288	.1694	.6555	.3337	.0806
PEOU4	.1137	.9281	.1936	.6910	.2856	.0729
PEOU5	.0901	.8867	.1845	.6535	.2303	.0543
PEOU6	.1838	.9154	.1725	.6991	.2618	.0602
FAM1	.1472	.2058	.8781	.2413	.2472	.1690
FAM2	.2004	.1643	.9131	.2254	.2758	.2883
PU2	.1664	.6773	.2033	.8763	.3500	.1564
PU3	.1295	.6899	.2429	.9362	.3621	.1727
PU4	.1099	.6931	.2933	.9465	.3857	.2093
PU5	.2096	.6828	.2453	.9328	.3907	.1395
PU6	.1907	.6419	.1347	.8809	.3743	.1418
TR3	.3636	.4781	.3346	.4553	.8456	.4010
TR1	.4621	.2124	.1945	.3039	.9247	.4129
TR2	.4645	.2365	.2589	.3203	.9335	.5130
IPUR1	.3759	.0475	.2494	.0694	.5007	.9317
IPUR2	.2561	.1434	.2542	.2450	.3951	.8847

TABLE V
CONFIRMATORY FACTOR ANALYSIS FOR REPEAT CUSTOMERS

	Trusting Disposition	PEOU	Familiarity	PU	Trust	Purchase Intentions
DIS1	.7699	.1911	.0953	.0035	.2226	.0351
DIS2	.7731	.0602	.1114	.0713	.3014	.1025
DIS3	.8358	.0217	.1031	.1149	.3633	.1032
DIS4	.8544	.0499	.0700	.1180	.3370	.0349
DIS5	.8220	.0666	.0292	.1695	.3518	.0631
PEOU1	.0399	.8948	.4358	.6809	.3815	.3454
PEOU2	.0357	.8757	.3638	.5826	.3896	.2841
PEOU3	.0044	.8961	.3504	.6510	.3677	.2981
PEOU4	.0078	.7821	.3270	.5108	.2548	.2741
PEOU5	.0771	.9071	.4196	.6599	.4245	.2534
PEOU6	.0157	.9131	.4075	.6583	.3668	.3290
FAM1	.0587	.4864	.9348	.4730	.2689	.3363
FAM2	.0941	.3235	.9073	.4253	.3184	.3172
PU2	.2215	.6333	.4042	.8531	.4234	.2896
PU3	.1137	.6862	.4296	.9143	.3413	.4401
PU4	.1010	.6376	.4439	.9311	.3552	.4180
PU5	.1033	.6893	.4761	.9353	.3257	.3169
PU6	.0510	.6124	.4084	.9045	.3280	.2404
TR3	.2358	.4505	.3221	.4202	.8162	.3259
TR1	.3539	.2903	.1922	.2988	.8934	.2552
TR2	.3711	.3562	.3046	.3113	.9255	.3537
IPUR1	.0915	.2855	.2925	.2645	.3340	.8779
IPUR2	.0444	.3294	.3386	.4051	.2943	.9056

tivities together with those who only used it for window-shopping. This may have introduced a bias. The two groups were defined in this way because our focus was on differentiating between those who were users and those who were not. It is quite possible that further differentiation of users according to type of use could result in additional insights. Related to this additional research, the type and extent of related experiences also warrants additional research. That is, identifying the types of experiences that contribute to website purchase and understanding

the process underlying the relationship is an avenue worth pursuing.

Another topic of interest for additional research and a possible limitation is the precise multi-dimensionality meaning of familiarity. This study adopted Gefen's [25] definition so that the conclusions could be related to existing research. Hence, familiarity was defined as one construct containing two related aspects that deal with familiarity with the e-vendor and with using its website. There are, however, many additional aspects of fa-
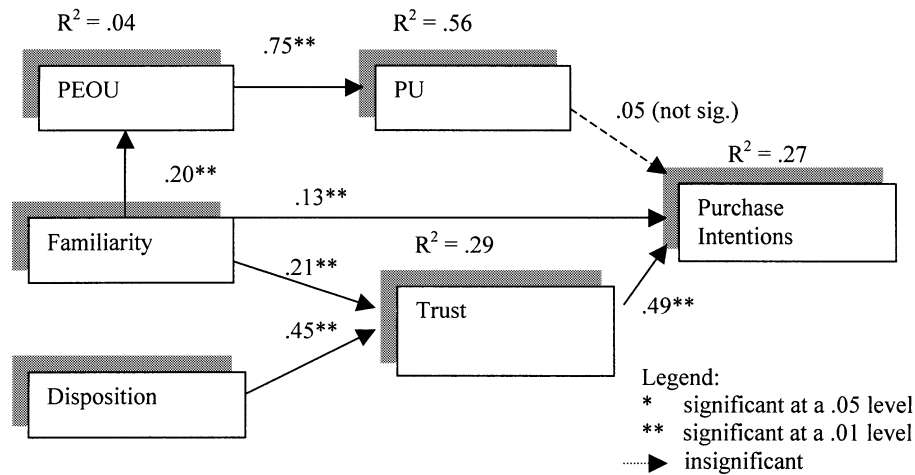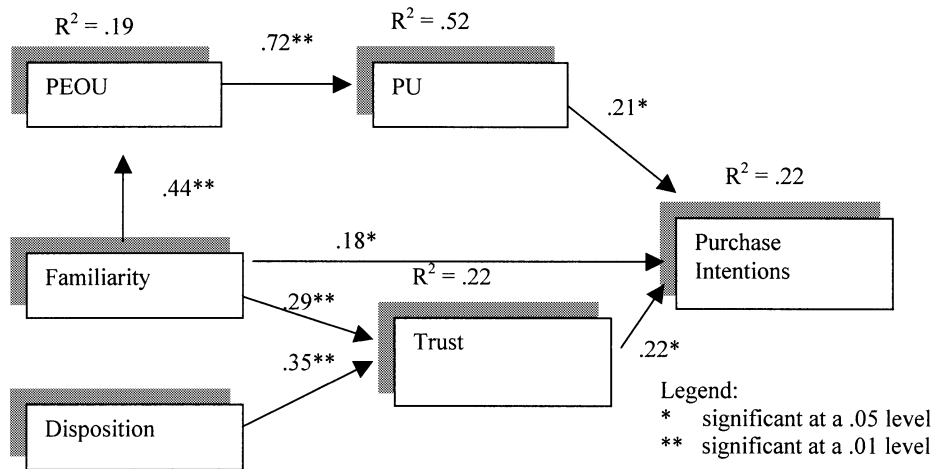
Fig. 2. Potential customers

Fig.3. Repeat customers.

miliarity involved, such as familiarity with the Internet, credit card payments, online security, and many others. Additional research is needed to examine these aspects and to compare their impact on trust and behavioral intentions as well as how the various dimensions are interrelated.

There are several methodological limitations to note. MBA and senior undergraduate students were used as the subjects in the study. To the extent that these students are typical of online customers, the results will hold across a more general population, as shown concerning advertising and purchase intentions among the general public [16] and as argued by previous research on e-commerce [25], or, conversely, it may pose a threat to the external validity of the study. Additionally, since measures of all the constructs of the study were collected at the same point in time, the potential for common method variance exists.

Due to the cross-sectional nature of the study, causality cannot be inferred from the results. Longitudinal research can provide further insights as to how familiarity, trust, PU, and PEOU evolve and interrelate over time.

Last, but not least, the model posits linear relationships. It is quite possible, however, that, at least with regard to customer trust, the relationships are not linear. It is probable that very high or very low degrees of trust have a disproportionately strong

influence on behavioral intentions [7], [48]. Additional research is needed here too.

C. Implications: Theoretical and Practical

The data show that there are two distinct populations: 1) repeat customers, i.e., those who have already used the e-vendor website and 2) potential customers, i.e., those who have yet to use the website. The two populations have distinctly different beliefs and assessments and related behavioral intentions, specifically the intention to purchase online. The data suggest that the two populations are distinct in the relative importance of trust and of TAM, specifically PU. Recognizing the existence of two such populations and targeting each population with an appropriate marketing strategy should be beneficial to firms engaged in e-commerce.

Since a potential customer's decision to engage in e-commerce with an e-vendor depends more on the extent of trust in the e-vendor, it may be advisable for e-vendors to target this population by attempting to build trust with the customer and assist the customer gain familiarity with the e-vendor and its website. Creating a website where potential customers can learn easily about the e-vendor, and its procedures might be critical.

For instance, e-vendor web pages can be customized to provide different types of information depending on whether the user is new (e.g., they have created a new user ID) or returning. For new users, the objective of the web pages could be to fairly quickly enable the user to gain an overview and familiarity with the e-vendor and its procedures. For returning users who are already familiar with the website, it may be important to ensure that any web site design changes do not alter the fundamental nature of user interaction with the site. Along the same lines, the findings also suggest it might be beneficial to highlight more the trustworthiness of the e-vendor to potential customers, while highlighting its usefulness to returning ones. To the extent that the data can be generalized, the study also implies that when advertising a new service or portal on the Web, e-vendors should design the software so that it will initially give precedence to broadcasting trustworthiness, and only once, the customer has actually started using it to advertise its usefulness.

As a side benefit, increased familiarity should also contribute to an easier to use site and with it to a heightened sense of perceived usefulness for repeat customers. Sites that are oriented around what are unfamiliar ordering procedures, for example, may have appropriate content but may be difficult for novice users to negotiate. With such sites, lower familiarity may result in decreased levels of trust and might result in lowered desire to purchase online.

While the evidence here suggests that perceived usefulness of the website is not the crucial determinant in the decision of potential customers to purchase online, repeat customers are concerned with the usefulness of the website and should, accordingly, be targeted with a differentiated strategy. After the trust barrier is overcome and customers start using the website, their return to the website for repeat purchases hinges on the quality of the experience they had in terms of trust in the e-vendor and usefulness of the website. Retaining existing customers is important since acquiring new customers may cost e-vendors as much as five times as retaining existing customers [59].

The existence of these two distinct populations is an interesting variation in how technology acceptance is usually viewed. Previous research has most often supported the proposition that PU is a major determinant of behavioral intentions with respect to new IT across technologies and cultures. Additional research is still needed to examine such traditional aspects of IT acceptance, but the results of this study in the e-commerce environment are intriguing in that they contend the traditional interpretation with respect to new users. Apparently, with regard to potential users, trust in the e-vendor is the dominant factor in behavioral intentions to purchase, supporting unrelated suggestions by previous research on expert systems acceptance that the human relations aspects of IT adoption may be an important addition to TAM [26].

Other factors beside those posited in the model are likely to influence purchase intentions and increase the explained variance of the model. The current study portrayed the purchase process as monolithic. However, purchasing from an e-vendor involves a series of activities each with its own set of antecedents. Future research should more closely examine the interrelationships among these activities, how they relate to purchasing, and how potential customers differ from repeat customers in their performance of these activities. Further, additional factors have been shown to influence behavior on a website. These include individual differences such as computer playfulness [55] and cognitive absorption [2], additional beliefs such as product involvement and perceived enjoyment [39], and web design issues such as download delay, navigability, information content, interactivity, response time, website personalization,Internet shipping errors, convenience, customer relations, informational fit to task, intuitiveness, and visual appeal [3], [4], [46], [58], [60], [78]. Integrating these findings into coherent models for potential and repeat customers may be a fruitful direction for future research.

Another implication worth looking into is that the decreasing effect of disposition to trust on trust with repeat customers. Disposition to trust is acquired through socialization and is, therefore, dependent on culture [22] as well as on lifelong personal experience [67]. That its effect is significantly smaller with repeat customers implies that the impact of culture and lifelong personal experience, while important for potential customers, has a lesser impact once customers gain experience with the specific e-vendor. Accordingly, additional research is needed before any definite conclusion can be reached, the data implying that while it is important for e-vendors to adapt their websites to different cultures, the benefits of such an adaptation, at least as far as its impact on trust is concerned, diminishes once potential customers start using the site.

VII. CONCLUSION

The study has tested an integrated model of customer purchasing intentions that includes both trust, which has been found to be one of the major customer concerns with e-commerce [62] and perceived IT usefulness, which has been shown to be a consistently important predictor of intended IT usage. The study has placed a cum-temporal lens on the phenomenon, examining how the relative importance of these two constructs and of their antecedents differs between potential customers and repeat ones. Findings identified important differences between the determinants of purchasing intentions for potential customers vis-à-vis repeat customers of an e-vendor.

Several implications for future research and theoretical development emerge from the findings. First, given that results of the study have confirmed the centrality of convincing customers that the e-vendor can be trusted in shaping online purchasing intentions, future research should replicate this work and investigate additional determinants of this belief as well as examine the actual beliefs and assessments that lead to it across a variety of websites. This is particularly important for potential customers where trust was the sole determinant of their purchasing intentions in this study. In addition to disposition to trust and familiarity, one possible venue may involve examining the relationship between institution-based trust and trust in a specific website. Institution-based trust refers to trust emanating from the security one feels about the situation because of guarantees, safety nets, or other structures [51], [70], [86]. On the web, such cues appear on the web page, and may include seals of approval (e.g., the BBB*OnLine* Reliability seal of the Better Business Bureau

[51], [57]), privacy policies [51], guarantees, affiliations with respected companies [71], and "contact us" buttons.

Future research may expand the model to include social norms. Empirical evidence suggests that normative influences from environment are important determinants of intended behaviors (e.g., [19]), particularly for potential adopters of IT [36]. Through informational influence, near-peers, family, and friends of the potential adopter can inform the potential adopter of their own personal experience and evaluation of the website and its e-vendor. This can influence both a potential adopter's trust in the e-vendor as well as their purchasing intentions.

Vendors who are engaged in e-commerce will want to ensure that their websites lead to a environment that assures customers that the e-vendor can be trusted. The more familiar online customers are with a trustworthy e-vendor, the more they will trust it [25], and so, the more likely it is that they will become loyal customers [61]. This strong, personal connection to the customer is one of the primary benefits of e-commerce and strategic managers should be setting their corporate goals toward achieving this connection.

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David Gefen received the Ph.D. degree in computer information systems from Georgia State University, Atlanta, and the M.S. degree in managment information systems from Tel-Aviv University,Tel-Aviv, Israel.

He is currently an Associate Professor of Managment Information Systems at Drexel University, Philadelphia, PA, where he teaches strategic management of information technology, database analysis and design, and VB.NET. His research focuses on psychological and rational processes involved in enterprise resource planning, computer-mediated communication (CMC), and e-commerce implementation management. His wide interests in IT adoption stem from his 12 years of experience in developing and managing large information systems. His research findings have been published in *MIS Quarterly, Journal of Management Information Systems, Journal of Strategic Information System, Electronic Markets, The DATA BASE for Advances in Information Systems, Omega: The International Journal of Management Science, Journal of AIS, eService Journal, Journal of End User Computing,*, and a paper in *Communications of AIS* that is on the AIS ISWorld *Exemplary Works on Information Systems Research*.

Elena Karahanna received the B.S. degree in computer science and the M.B.A. degree from Lehigh University, Lehigh, PA, and the Ph.D. degree in management information systems (MIS) with specializations in organization theory and organizational communication from the University of Minnesota, Minneapolis.

She is currently an Associate Professor of MIS at the Terry College of Business, University of Georgia, Athens. Her research interests include the adoption, use, and infusion of information technologies, the effect of media choice and use on individuals and organizations, IS leadership, and cross-cultural issues. Her work has been published in *MIS Quarterly, Management Science, Organization Science, Data Base*, and the *Journal of Organizational Computing and Electronic Commerce*, among others.

Dr. Karahanna currently serves on the editorial boards of the IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, *MIS Quarterly, Journal of AIS*, the *European Journal of Information Systems*, and *Computer Personnel*.

Detmar W. Straub received the Ph.D. degree in english from The Pennsylvania State University, University Park, and the D.B.A. degree in management information systems from Indiana University, Bloomington.

He is currently the J. Mack Robinson Distinguished Professor of information systems at Georgia State University, Atlanta. He has conducted research in Net-enhanced organizations, computer security, technological innovation, and international information technology with over 100 publications in journals including *Management Science*, *Information Systems Research*, *MIS Quarterly*, *Organization Science*, *Journal of MIS*, *Journal of AIS*, *Journal of Global Information Management*, *Communications of the ACM*, *Information & Management*, *Communications of the AIS*, *Academy of Management Executive*, and *Sloan Management Review*. He is currently an Associate Editor for *Management Science and Information Systems Research*. He was formerly an Editor-in-Chief of *DATA BASE for Advances in Information Systems*, a Senior Editor for *Information Systems Research* (Special Issue on e-commerce Metrics), and an Associate Editor for *MIS Quarterly*.