Conceptualizing Trust:
A Typology and E-Commerce Customer Relationships Model

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Abstract

A typology of trust concepts would enable researchers to compare results and communicate results more clearly. The typology would be especially valuable if the types of trust are shown to relate to each other.

This paper justifies such an interdisciplinary typology and relates the trust constructs to e-commerce actions. It defines both conceptual level and operational level trust constructs. The conceptual level constructs consist of Disposition to Trust (from Psychology), Institution-based Trust (from Sociology), and Trusting Beliefs and Trusting Intentions (from Social Psychology). Each construct is further decomposed into two to four measurable subconstructs.

Web vendor interventions designed to encourage customers to purchase goods/services or to share personal information with the vendor are posited to affect these behaviors by influencing customer trusting beliefs and trusting intentions in the vendor.

1. Introduction

Trust is central to interpersonal [25] and commercial [44] relationships. Trust is crucial wherever risk, uncertainty, or interdependence exist [39, 43]. These conditions flourish in many settings, and certainly exist in the relationship between e-commerce vendors and customers. Trust has been found to be important to e-commerce [1, 27, 28, 46, 59]. As conditions become more uncertain because business complexity increases through computer-mediated commerce, the need for trust grows [43].

2. The state of trust definitions

A good deal of trust research has recently been initiated, with the potential to produce significant understanding of various IS phenomena. However, an understanding of what the term 'trust' means is needed in order to interpret and compare trust results. In this paper, we justify and specify a conceptual typology of trust constructs. Then we define the four resulting constructs and ten measurable subconstructs. Distrust constructs are separate from trust constructs [34], and lie outside our scope. Finally, we relate trust constructs to two e-commerce customer/vendor relationships constructs.

Several researchers have reported that trust definitions are numerous and confusing [35, 57, 60]. Some have said that trust is an elusive concept to define [21, 65]. Others have chosen not to define trust [e.g., 26, 48]. Within the compact e-commerce domain of research, trust has been defined as a willingness to believe [19], or an individual's beliefs, regarding various attributes of the other party [42, 59]. Among the attributes mentioned are: fairness, goodness, strength, ability, benevolence, honesty, and predictability. A consensus definition of trust would help researchers form e-commerce models that communicate shared meaning among researchers and practitioners. Again, though they discuss the importance of trust, some internet researchers, for whatever reason, do not specifically define the term trust [1, 4, 5, 8, 9, 11, 18, 27, 33, 45, 46, 63]. Why does the term trust elicit either confusion or reluctance to define?

First, because each discipline views trust from its own unique perspective. Like the story of the six blind men and the elephant, a disciplinary lens causes psychologists to see trust as a personal trait, sociologists to see trust as a social structure, and economists to see trust as an economic choice mechanism [34].

Second, because trust is itself a vague term. In ordinary English usage, we may think of many different things when someone uses the word 'trust.' An analysis of the word trust in three unabridged dictionaries (Websters, Random House, and Oxford) showed that trust had far more definitions (9, 24, and 18, respectively) than did the terms cooperation (3, 2, 6), confidence (6, 8, 13), and predictable (1,2, 1). Cooperation, confidence, and

predictable are the terms which Mayer, et al. [39] used to discriminate trust from similar concepts. On average, trust had 17.0 definitions, while the others had an average of 4.7. Hence, trust is naturally hard to narrowly define.

Few have addressed this issue head-on by trying to reconcile the various types of trust into a sensible set of constructs (exceptions: [3, 6, 14, 20, 31, 39, 43]). In part, this is because of disciplinary perspective. For example, sociologists Lewis and Weigert [36] argued that psychological views of trust are invalid because trust cannot be reduced to a personal characteristic.

The other problem has been that empirical research has driven most definitions of trust, and one need only define one type of trust to do empirical research. Therefore, each researcher has developed a narrow conceptualization of trust that fits their research. They defend their narrow trust conceptualization by referring to the factor analysis. Van de Ven [62: 487] warned that when theories on a topic widely diverge, the advocates "for each theory engage in activities to make their theory better by increasing its internal consistency, often at the expense of limiting its scope...[S]uch impeccable micro logic is creating macro nonsense!" The broad proliferation of incommensurate trust definitions is evidence that this is happening in trust research. A more beneficial way would be to recognize the various types of trust that exist and to specify which type of trust is being addressed in the current work.

3. The need for consistent trust definitions

Researchers should also agree on what trust types exist because common definitions will enable researchers to sort out findings across studies. Currently, this is very hard to do [25]. Without agreed-upon definitions, effective meta-analyses are difficult. A search in ABI Inform yielded only two meta-analyses about trust, both published very recently and focused on sales relations. This meager result may be a symptom of the difficulty of comparing trust studies. Trust research needs a set of rules to translate among results, as Rubin [54] recommended for the love literature. Consensus knowledge about trust will then progress more rapidly.

Consistent definitions provide a means for researchers to communicate clearly with practitioners and provide them better prescriptions. This dialogue would both enable trust research to be more valuable to practitioners and provide researchers the value of intuitive practitioner knowledge. Researchers like social psychologist Harold Kelley [32] have commented that the interplay between common-sense- and scientific psychology is useful to all.

4. One suggestion: Create a trust typology

The key to defining trust lies neither in empirical work nor in construct validation work. After all, it is the plethora of empirical trust studies that has brought trust research to its current state. Wrightsman [64: 411] argued that "…the general concept of trust deserves much more theoretical analysis. Measurement has advanced more rapidly than conceptual clarification…" Other researchers agree [31, 34, 60]. Some scientists have argued that effective conceptualization is vital to progress in validating *any* construct [30, 56]. Thus, building a good *theoretical, conceptual* view of trust is a key to moving trust research forward.

Because trust is so broad a concept, and because so many definitions have proliferated, a typology of trust constructs seems appropriate. A good typology would do two things [61]. First, it would create order out of chaos by distinguishing clearly among concepts that at first appear to be the same concept (trust). Second, it would specify how the different types of trust relate to each other [56], creating a model of trust types. "… a good typology is not a collection of undifferentiated entities but is composed of a cluster of traits which do in reality 'hang together.'" [61: 178].

To produce an acceptable typology requires analysis of existing trust definitions. We compared various definitions, as in grounded theory [24], to find conceptual trends. Among about eighty articles and books on trust, we identified sixty-five that provided definitions of trust. These articles and books were from psychology/social psychology (23), sociology/economics/political science (19), and management/communications (23). Each was either oft-cited by others or had a unique trust definition.

By analyzing these definitions, we found two broad groupings of definitions. First, many definitions could be categorized into *different conceptual types*, such as attitudes, beliefs, behaviors, and dispositions. Second, many could be categorized as reflecting *different referents*: trust in something, in someone, or in a specific characteristic of someone (e.g., one's honesty). In terms of characteristics, sixteen categories were identified (Table 1).

As Table 1 shows, the sixteen categories may be distilled into five second order conceptual categories by comparing one type of characteristic with another. Ninety-three trained student raters validated our categorizations, agreeing with how we categorized the sixteen constructs seventy-one percent of the time (seventy-seven percent without the term "dynamism," which was widely misunderstood because we stripped away its public speaking domain context). Most of these categorizations are intuitive; however, based on the literature, we decided to distinguish between Predictability and Integrity by defining the latter as value-laden and the former as value-less. Thus, the value-laden definitions of dependable and reliable we found in the literature would

more closely fit in the Integrity category than in the Predictability category. Thus, four second order categories cover 91.8% of the characteristic-based trust definitions in the sources.

Table 1. Trust characteristic definition categories

Trust-related Characteristic	Second Order Concept Category	Count	% of Total
1. Competent		14	
2. Expert		3	
3. Dynamic		3	
	COMPETENCE	20	20.4
4. Predictable	PREDICTABILITY	6	6.1
5. Good, Moral		6	
6. Good will		10	
7. Benevolent, Caring		18	
8. Responsive		4	
	BENEVOLENCE	38	38.8
9. Honest		11	
10. Credible		1	
11. Reliable		8	
12. Dependable		6	
	INTEGRITY	26	26.5
13. Open		3	
14. Careful, Safe		3	
15. Shared Understanding		1	
16. Personally Attractive		1	
	OTHER	8	8.2
	Grand Total	98	100.0

The two types of groupings of trust definitions (construct type and referent) seemed relatively exclusive but not overlapping, in that the first refers to what type of construct trust is, while the second refers to the object of trust. Therefore, we used these two categories as an N X N table that enabled us to depict the types of trust definitions researchers have used. Table 2 shows the result of using these two groupings as table dimensions. We mapped each of the definitions in the sixty-five articles and books onto these dimensions. The result was the expected finding--that trust definitions ranged broadly.

Table 2. Mapping of literature trust definitions

Second-order Characteristic	Conceptual Types					
	Structural	Disposition	Attitude	Belief	Intention	Behavior
Benevolence			x xxxxx xxxxx x	xxxxxx xxxxxx xxxxxx x xxxxxx xxxxxx xxxxxx xxxxxx x	xxx	xxxx xxxxx
Integrity			xxxxx xxxx	xxxxxx xxxxxx xxxxxx	x	xxxxxx
Predictability			x	xxxxxx xxxxx		x
Other Referent	xxxxxx	xxxxx	xxxxx xx	xxxxxx xxxxxx xxxxxx xxxxxx xxxx	xxxxx	xxxxxx xxxxxx xxx

Notes: 1. Each "x" represents one trust definition. 2. Attitude includes affect and confidence; Belief includes "expectancy"

5. A typology of related trust constructs

From this mapping, and from an analysis of how trust types relate to each other [41], we built an interdisciplinary model of trust types. The model (Figure 1) has concepts from all but one of the Table 2 columns. The Attitude and Belief columns were combined into Trusting Beliefs, which have both affective and cognitive components (see [49]).

Trusting Behavior was dropped because the consequents of Trusting Intention already have other labels, (e.g., cooperation, information sharing, entering agreements with, risk taking, or involvement with). What these have in common is that, in each case, one behaviorally *depends* on the other party. If we included trusting behavior, we would needlessly duplicate the meaning of existing constructs.

The four constructs in Figure 1 are further subdivided into lower level constructs that are measurable via scales. Disposition to Trust includes the Faith in Humanity and Trusting Stance subconstructs. Institution-based Trust consists of Structural Assurance and Situational Normality. Trusting Beliefs include Competence, Benevolence, Integrity, and Predictability beliefs, matching the first four rows of Table 2. Trusting Intention includes Willingness to Depend [14] and Subjective Probability of Depending [12].

As the definitions below will show, these subdivisions of the four main constructs are proposed to be conceptually distinguishable from each other and from the construct itself. Like the subtypes of a data modeling supertype [7],

each subconstruct partakes of the overall conceptual meaning of the supertype, but has certain attributes that distinguish it from the supertype and from other subtypes. That is, each subconstruct partakes of the nature of the construct but has attributes that differentiate it from its parent construct and from other subconstructs of its parent. We now define Figure 1's constructs and subconstructs in light of e-commerce customer-vendor relations.
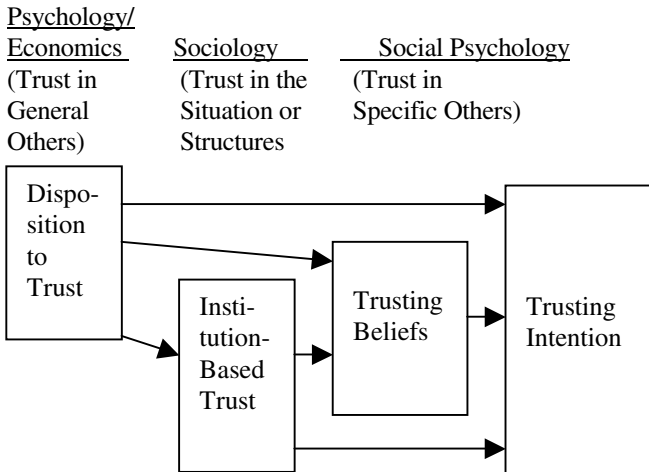
Psychology/
Economics   Sociology   Social Psychology
(Trust in   (Trust in the   (Trust in
General   Situation or   Specific Others)
Others)   Structures

Figure 1. Interdisciplinary trust constructs model

6. Conceptual definitions of trust constructs

Disposition to Trust means *the extent to which one displays a consistent tendency to be willing to depend on general others across a broad spectrum of situations and persons.* This construct hails primarily from disposition or trait psychology. Our definition does not literally refer to a person's trait. Rather, it means that one has a general propensity to be willing to depend on others [39].

Disposition to trust does not necessarily imply that one believes others to be trustworthy. Whatever the reason, one tends to be willing to depend on others. People may grow up with Disposition to Trust [15] or may develop it later in life. Either way, it is acted out as a generalized reaction to life's experiences with other people [53]. Because Disposition to Trust is a generalized tendency across situations and persons, it colors our interpretation of situations and actors in situations. Thus, as Figure 1 indicates, disposition to trust will influence institution-based trust, which reflects beliefs about the situation. Disposition to trust will only affect trust in a specific other when novel situations arise in which the object of trust and the situation are unfamiliar [29]. To the extent that e-commerce is novel to a consumer, Disposition to Trust is likely to influence trusting beliefs and trusting intentions regarding the vendor (Figure 1).

Institution-based Trust means *one believes the needed conditions are in place to enable one to anticipate a successful outcome in an endeavor or aspect of one's life* [38, 35, 67]. This construct comes from the sociology tradition that people can rely on others because of structures, situations, or roles [2] that provide assurances that things will go well. Hence, the causal link in Figure 1 goes from institution-based trust to trusting beliefs and intentions, not the other direction. Zucker [67] traced the history of regulations and institutions in America that enabled people to trust each other—not because they knew each other personally, but because licensing or auditing or laws or governmental enforcement bodies were in place to make sure the other person was either afraid to harm you or punished if they did harm you. Based on our empirical evidence, institution-based trust will link more strongly to trusting beliefs than will disposition to trust. This is because situation tends to have stronger effects on beliefs than does disposition when the situation is known [29].

Trusting Beliefs means *one believes (and feels confident in believing) that the other person has one or more traits desirable to one in a situation in which negative consequences are possible.* This is not an expectation, as some have defined trust (e.g., [13, 3]), but is defined as a cognitive/affective belief to reflect the type of construct more normally used in social science. Inference or attribution to the other party's traits is often included in trust definitions [49, 65]. Confidence in one's belief reflects the affective side of trusting beliefs. Confidence is often included in research and dictionary trust definitions (e.g., [10, 23, 37, 55]). We include negative consequences in the definition in order to reflect the risk inherent in trust situations. One with high trusting beliefs perceives the internet vendor to have favorable or good attributes in the context of the consumer-vendor relationship. Trusting beliefs is thus situation- and person-specific, in contrast to institution-based trust, which is situation-specific only.

Trusting Intentions means *one is willing to depend on, or intends to depend on, the other person in a given task or situation with a feeling of relative security, even though negative consequences are possible.* Trusting Intention definitions embody five elements synthesized from the trust literature. 1. The possibility of negative consequences [21, 66] or risk [23, 50, 57] is what makes trust in unfamiliar or uncertain situations like the internet important but problematic. 2. A readiness to depend or rely on another (such as the web vendor) is central to trusting intention [14, 23, 36, 51]. 3. A feeling of security means one feels safe, assured, and comfortable (not anxious or fearful) about the prospect of depending on the vendor [36, 49]. Feelings of security reflect the affective side of trusting intention. 4. Trusting intention is situation- and person-specific [20, 58]. 5. Trusting intention involves willingness that is not based

on having control or power over the other party [50, 21, 51]. This is especially applicable in the internet world, where distance prevents consumer control more than in the brick-and-mortar world. Note that Trusting Intention relates well to the IS power literature because we define it in terms of dependence and control. This opens avenues for research, in that the feeling of powerlessness against the faceless internet is probably related to fear of web buying.

The link between Trusting Beliefs and Trusting Intentions is natural because beliefs are posited to influence intentions in the theory of reasoned action [16]. In the internet setting, it seems reasonable that beliefs that the vendor is honest, competent, benevolent, and predictable should provide one the assurance to have trusting intentions (Figure 2). Additional theoretical justification for model linkages among trust constructs is found in [41]. Empirical evidence has been found but not yet published.

7. Conceptual definitions of subconstructs

Disposition to Trust has two subconstructs, Faith in Humanity and Trusting Stance. *Faith in Humanity* refers to underlying assumptions about people, while Trusting Stance is like a personal strategy. _Faith in Humanity_ *means one assumes others are usually upright, well-meaning, and dependable* (e.g., [52, 64]). Mayer et al. [39] gave the example that if you were going to drown, could you trust nonspecific others to come to your aid? You would if, having high Faith in Humanity, you assumed others generally care enough to help. Likewise, you would be more likely to have high trusting beliefs (i.e., that an internet vendor is trustworthy and would keep you from virtually drowning) if your Faith in Humanity is high (Figure 2). People with high Faith in Humanity are less judgmental or critical of others and are more tolerant.

Trusting Stance *means that, regardless of what one assumes about other people generally, one assumes that one will achieve better outcomes by dealing with people as though they are well-meaning and reliable*. Therefore, it is like a personal choice or strategy to trust others. Because it involves choice that is presumably based on subjective calculation of the odds of success in a venture, Trusting Stance derives from the calculative, economics-based trust research stream (e.g., [50]). Here's an example. We once asked an IS employee if she trusted her newly hired manager, whom she had never met before. She said that she did trust her, because she always trusted new people until they gave her some reason not to trust them. Thus, she had a high level of Trusting Stance, which encouraged her to be willing to depend on her new boss. In the internet context, one with high Trusting Stance would probably have high trusting intention (Figure 2). That is, they would be willing to take normal risks (e.g., risk of credit card fraud) to buy goods or services online until they have some experience that changes their mind about internet vendors.

Trusting Stance and Faith in Humanity are alike in that they each constitute a tendency or propensity [39] to trust other people. They differ in terms of the assumptions on which they build. Because Faith in Humanity relates to assumptions about peoples' attributes, it is more likely to be an antecedent to Trusting Beliefs (in people) than is Trusting Stance (Figure 2). Trusting Stance will relate more to Trusting Intention, since it is a strategy related to trusting others rather than a belief about people [41].
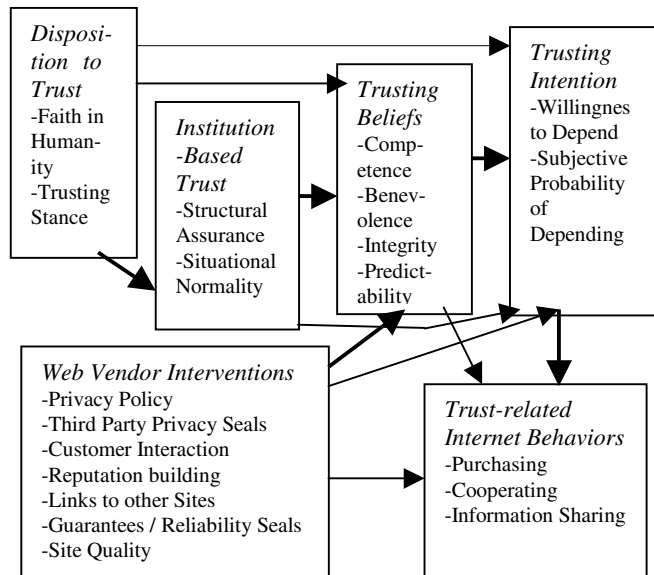
Note: Thick arrows are proposed to be stronger links.

Figure 2. E-commerce relationships trust model

Institution-based Trust has two subconstructs, Structural Assurance and Situational Normality. _Structural Assurance_ *means one believes that success is likely because guarantees, contracts, regulations, promises, legal recourse, processes, or procedures are in place that assure success* [57, 67]. For example, one using the internet would have structural assurance to the extent to which one believed legal and technological internet safeguards (e.g., encryption) protect one from privacy loss or credit card fraud [27]. With a high structural assurance level regarding the internet, one would be more likely to be willing to rely on specific internet vendors (trusting intentions) because of the secure feeling structural assurance engenders (Figure 2).

Situational Normality *means one believes that success is likely because the situation is normal or favorable*. Situational normality reflects Garfinkel's [22] idea that trust is the perception that things in the situation are normal, proper, customary [2], fitting, or in proper order

[35]. Garfinkel found in natural experiments that people don't trust others when things "go weird," that is, when they face inexplicable, abnormal situations. Situational normality means that a properly ordered setting is likely to facilitate a successful venture. When a web consumer believes the internet situation is normal and that their role and the vendor's roles in the situation are appropriate and conducive to success, then they have a basis for trusting the vendor in the situation. Hence, situational normality regarding the internet setting will affect Trusting Beliefs and Trusting Intention about internet vendors (Figure 2).

Just as one with high Faith in Humanity is less critical of people, they are probably also less critical of situations and more positive about the structures beneath situations. Therefore, one with a high Faith in Humanity should have high Situational Normality and Structural Assurance regarding the e-commerce setting (Figure 2). Similarly, those who give people the benefit of the doubt because of high Trusting Stance will be more likely to have high Situational Normality and Structural Assurance beliefs. Hence, both Disposition to Trust constructs should influence both Institution-based trust constructs, as Figure 2 indicates.

Trusting belief subconstructs defined here consist of four types, though we recognize that others exist. *Trusting Belief-Competence means one believes the other person has the ability or power to do for one what one needs done.* In the case of the internet relationship, the consumer would believe that the vendor can provide the goods and services in a proper and convenient way. *Trusting Belief-Benevolence means one believes the other person cares about one and is motivated to act in one's interest.* A benevolent internet vendor would not be perceived to act opportunistically. *Trusting Belief-Integrity means one believes the other person makes good faith agreements, tells the truth, and fulfills promises* [6]. This would reflect the belief that the internet vendor will come through on their promises, such as to deliver goods or services or to keep private information secure. *Trusting Belief-Predictability means one believes the other person's actions (good or bad) are consistent enough that one can forecast them in a given situation.* One with high Trusting Belief-Predictability would believe that they can predict the internet vendor's future behavior in a given situation. This construct, as opposed to Trusting Belief-Integrity, is value-neutral, such that the vendor is believed predictably to do either good or bad things in the future.

Trusting intention subconstructs include Willingness to Depend and Subjective Probability of Depending. *Willingness to Depend means one is volitionally prepared to make oneself vulnerable to the other person in a situation by relying on them* (e.g., [14, 39]). Here, the e-consumer is willing to depend on the vendor to do their part

of the transaction in a proper and efficient way. *Subjective Probability of Depending means the extent to which one forecasts or predicts that one will depend on the other person* [12]. This means the consumer predicts that they will rely or depend on the e-commerce vendor in the future.

8. Linking trust to Internet constructs

Figure 2 links trust variables to two internet constructs. First, we linked trusting intention and trusting beliefs to a construct termed "Trust-Related Internet Behaviors." This construct is defined constitutively as behaviors that demonstrate that one is willing to do business with the internet vendor, cooperate with them, and share information with them. Trust-Related Internet Behaviors is not a trust construct, but is a naturally following consequent of the trust constructs. Just as the theory of reasoned action has shown that behavioral intentions and beliefs lead to related behaviors, so our model posits that in the internet setting, trusting beliefs and intentions will influence one to actually do business with the web vendor. We posit that trusting intentions will only partially mediate trusting beliefs because beliefs are likely to become, over time, very specific [58]; therefore, one or more trusting beliefs will probably have a direct effect on specific internet behaviors.

So far, we have only posited trusting beliefs and intentions as antecedent factors to internet behaviors like purchasing. But vendors can also try to influence consumers to purchase and cooperate and share information through the Web Vendor Interventions shown in Figure 2. Web Vendor Interventions are actions a vendor may take to provide assurances to consumers about the vendor's site. Rather than relating to the web environment as a whole, as institution-based trust does, the Web Vendor Interventions assure customers that their site is safe in spite of the overall web environment. Over time, if such interventions become standard and actual practices, the overall web may be widely perceived to be a safe and secure place, increasing institution-based trust.

We now explain how the trust constructs relate to web vendor interventions (Figure 2). Existing internet theory postulates that reputation building, links to other sites, third party seals [4], and other vendor interventions may help induce such consumer behaviors as purchasing and personal information sharing (e.g., [27]), as reflected by the arrow from web vendor interventions to trust-related internet behaviors. Our unique contribution is to suggest that although this direct link exists, a large portion of the effect of trust-building interventions on internet behaviors will be mediated by trusting beliefs and trusting intentions. Therefore, we have drawn arrows from interventions to trusting beliefs and trusting intentions. We now discuss the rationale for these mediating links.

8.1 Privacy policy and third party privacy seals

If a vendor posts a privacy policy or uses a third party seal (e.g., TRUST-e) that indicates a privacy policy exists on the site, the consumer should believe that this vendor is more benevolent than opportunistic with regard to capturing personal information (Trusting Belief-Benevolence). Thus, the consumer is more likely to be willing to share personal information with the vendor (Trusting Intention-subjective probability of depending). If the consumer intends to share personal information, they are more likely to actually share the information (Trust-related Internet Behaviors-Information Sharing).

8.2 Interacting with customers

If a vendor interacts with its customers, they will be able to demonstrate to the customer that they are benevolent, competent, honest, and predictable. The interaction therefore provides the customer evidence that the vendor has positive attributes, thereby strengthening Trusting Beliefs. The interaction thereby provides assurances to the customer that support their willingness to depend on the vendor (Trusting Intentions); therefore, they are more likely to do trust-related internet behaviors like purchasing, cooperating, and sharing information.

8.3 Reputation building

The vendor may advertise their good reputation in order to induce purchasing behaviors. But improving their reputation will also improve Trusting Beliefs, because reputation is the second-hand rumor that one has positive general traits, while trusting beliefs constitute the first-hand beliefs. Trusting intention follows from these beliefs.

8.4 Links to other sites

Links to other reputable sites may provide assurance enabling purchasing or other internet behaviors [59]. However, outside links imply that one has good company becomes one is good company, which would tend to positively impact Trusting Beliefs about the site.

8.5 Guarantees / Reliability Seals

Guarantees or third party seals related to the reliability of the site (e.g., BBB) would raise Trusting Beliefs in the reliability or integrity of the vendor, thereby engendering willingness to depend on that vendor.

8.6 Site Quality

High site quality will cause the customer to conclude that the vendor is competent in site design. This belief should imply to the customer that the vendor is also competent at other things, leading to high trusting belief-competence. Through the kind of thinking that McKnight, et al. [41] describe as producing cognitive consistency, the customer will also have high levels of other trusting beliefs. Similarly, high site quality will encourage the customer to have high trusting intentions towards the web site.

In sum, each vendor trust-building intervention tends to build trusting beliefs and intentions, which provide the intermediate mechanisms for producing Trust-Related Internet Behaviors. If the above arguments hold true empirically, Trusting Beliefs and Trusting Intentions will mediate most of the effects of these interventions on Trust-Related Internet Behaviors.

9. Reasons the model may be helpful

1. All the subconstructs are measurable, facilitating new research on either part or all of the model.

2. The constructs are well-defined and parsimonious enough to be easily understood and distinguished. Subconstructs tie closely to constructs in a precise definitional way, such that moving from subconstruct to construct does not constitute the vagueness of concept stretching [47].

3. Based on an extensive literature review, these constructs cover the most oft-used types of trust, except trusting behaviors. However, behaviors can easily be defined that relate to these trust constructs, as shown above.

4. The constructs represent conceptualizations from several disciplines. Though they do not correspond exactly to each discipline's original trust concepts, they do capture significant conceptual meaning from each.

5. The constructs form a model that appears to be potentially helpful in the e-commerce relationship domain. Therefore, these constructs provide "heuristic value" by generating research possibilities [30]. This would apply to other technology-mediated relationships like virtual teams, too. In general, any relationship that lacks face-to-face contact is a good candidate for this model, since its constructs were designed originally for relationships in which parties did not know each other well [41]. The fit with e-commerce variables seems especially natural and needs to be tested.

6. These definitions are generic so that the constructs would be able to travel to other research domains [47].

This typology compares favorably with other trust typologies in terms of coverage. Gabarro [20], Rempel, Holmes and Zanna [49] and Mishra [43] only addressed

trusting beliefs. Bromiley and Cummings [6] had three types of beliefs and intention. McAllister [40] addressed cognitive and affective trust, which would fall into our Trusting Beliefs category, because an analysis of their items shows that they primarily cover benevolence (affective) and competence (cognitive) beliefs. In our empirical work, we have found that it is often difficult to separate affective feelings from cognitive beliefs. Mayer, Davis and Schoorman [39] posited several constructs, but their model only has three of the four trusting beliefs and no institution-based trust constructs. Neither do they further delineate the trusting intention and propensity to trust concepts into measurable constructs. This work also extends the work of McKnight, et al. [41] by further delineating trusting intentions, adding trust-related beliefs, and by including an affective definitional basis for the trust concepts.

10. Conclusion

Trust is a highly complex and multi-dimensional phenomenon. The Table 2 classification system clarifies this complexity by specifying the nature of existing trust meanings, thereby facilitating meta-analyses. Our typology of trust constructs helps address conceptual confusion by representing trust as a coherent set of four constructs and ten subconstructs. We believe the model will help researchers examine e-commerce customer relationships in new ways, since the model includes personal, institutional, and interpersonal concepts, all of which are at play in Web relationships. Importantly, the model presents a vocabulary of specifically defined trust types that scholars and practitioners can use to converse on this important topic. Finally, it also enables use of more specific, and thus more helpful, trust prescriptions. This is especially true in the internet world, where researchers are already finding that the situation and one's propensity to trust are important to consumer trust in the internet.

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