

EVALUATING AND INTEGRATING THE MCKNIGHT'S TRUST RELATED MODELS

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Abstract

This paper primarily aims to develop a comprehensive model of initial trust by evaluating and integrating antecedents of interpersonal trust within the McKnight's trust related models. We have firstly identified antecedents of interpersonal trust by reviewed the literature and subsequently classified them by evaluating the properties of the constructs. Based on the review, seven constructs related to antecedents of interpersonal trust have partly been identified to incorporate in and extend the McKnight's trust models. They are: (1) situation normality, (2) structural assurance, (3) disposition to trust, (4) perceived site quality, (5) perceived vendor reputation, (6) co-brand image, (7) co-brand awareness. This study contributes academically by providing a comprehensive conceptual model, where these essential constructs are assembled together. Future empirical validation is suggested at the end of this paper.

Keywords: Initial trust, e-commerce, business-to-consumer, trusting beliefs, trusting intention

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1.0 RESEARCH BACKGROUND

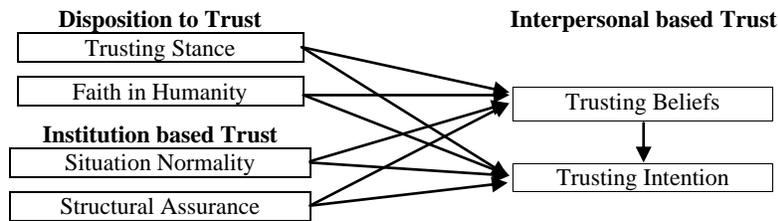
In a nature without human presence and sensory touch, buying in an online environment is perceived as riskier than in-store shopping. Risk increases if an online retailer is unknown or new to a shopper. Customers will stop at buying stage and end up without actual purchase, unless trust is initially established. Under uncertainty environment, customers certainly trust and buy from a well-established website. To that end, the website owned by a small company or start-up is always at a disadvantage against larger competitors with established reputation. Recent, in Malaysia, more small companies are seen to run business online. Small-and-Medium Enterprises (SMEs) represent nine out of ten business establishments in Malaysia and it is reported by the Malaysia External Trade Development Corp (Matrade) that the e-commerce adoption among Malaysian SMEs was 32% in year 2016 and is projected to grow by up to 50% by 2020 (Malaysian Investment Development Authority, 2018). While it is expected that more and more local SMEs will enter the online market, one of the greatest challenges is how the local businesses do succeed in an extremely competitive market where it has already flooded with too many competitors, from local to international. Given that the customer is epicenter of every business, the success of the business will be heavily dependent on customer's acceptability of the company offering. Customer's initial trust, in other word, is a critical success factor for every online business especially those with lesser known brand and is small in scale. Initial trust is important as developing customers a very first trust about an online business can lead to customers' first purchase, and in turn lead to repeat purchase in future. If initial trust is vital, then examining factors of which building this trust is necessary.

Many scholars have dedicated themselves to the study of initial trust. In the literature, there are various initial trust models with a range of trust antecedents that the present study can be based upon on to study factors affecting initial trust. McKnight and colleagues are among the first to study initial trust and most importantly they have proposed the broadly accepted theory for trust formation. They have successfully dealt with the conceptual confusion in trust literature. That is, viewing trust as a complex concept and the term "trust" is too broad that it almost defies careful definition, they based on a comprehensive, well-recognized Mayer et al.'s (1995) trust definition which reflects two key components of trust construct (i.e. cognitive aspect and behavioral aspect), have constructed trust by specifically decomposed it into two separate yet interrelated components. These include trusting belief (which refers to one's beliefs in other party has trustworthiness characteristics, i.e. competence, benevolence and integrity) and trusting intention (which refers to one's willingness to rely on other party). They also based on Ajzen's (1988) research proposition that positive beliefs regarding an action have a positive effect on intention to perform that actions, have suggested a positive relationship between trusting beliefs and trusting intention. According to them, these two distinct components are strongly inter-related where the existence of trusting beliefs about an entity is most important elements of forming the trusting intention. Trusting beliefs are important, as they are the only input into the trusting intention decision which is specific to a given entity. Meanwhile, the term "initial" in the concept of initial trust, it means one's trust in a specific other party that one is unfamiliar with and has never interacted with. Accordingly and based on McKnight's trust conceptualization, initial trust refers to one's beliefs in and intention to rely on an unfamiliar other party.

Another McKnight and colleagues' momentous work is that they have introduced a trust-type typology (i.e. McKnight, Choudhury and Kacmar, 2002a), consisting three important trust types and each comprising sub-types of trust (see Figure 1). One most important trust type that they propose is the interpersonal trust (which consists of trusting intention and trusting beliefs) to study trust in buyer-and-seller relationship and explore the factors affecting individuals' trusting beliefs and trusting intention in a specific unfamiliar vendor (interpersonal

trust); as what the present study seeks to do too and that will be based upon on in the present study. They also propose another two trust types where both types were postulated as the antecedents to interpersonal trust: institution based trust and disposition to trust. Institution based trust consists of situation normality (“one believe that the environment is in proper order and success is likely because the situation is normal or favourable”, p.339) and structural assurance (“one believes that structures like guarantees, regulations, promises, legal recourse, or other procedures are in place to promote success”, p.339). Next, disposition to trust which include: trusting stance (“regardless of what one believes about peoples’ attributes, one assumes better outcomes result from dealing with people as though they are well meaning and reliable” p.340) and faith in humanity (“one assumes others are usually upright, well meaning, and dependable”, p.339). This typology depicts the relationship among the trust types. In online transaction context, the trusting beliefs in a web-vendor are influenced by consumers’ institution-based trust and disposition to trust. The customers’ trusting beliefs along with their institution-based trust and trust disposition, in turn, influence their trusting intention towards that web-vendor.

Figure 1: McKnight’s Trust Type Typology



In addition to the trust disposition and institution based trust, McKnight and colleagues have also introduced and validated other internet-related constructs, for example, website quality (McKnight, Choudhury and Kacmar, 2002b, 2002a) and perceived web vendor reputation (McKnight, Choudhury and Kacmar, 2002b) as antecedents to interpersonal trust. Their research works were later extended by other researchers who have also studying initial trust particularly in online transaction by adding various constructs as antecedents to interpersonal trust. Specifically, researchers have drawn essential constructs from prominent theories to empirical test their effects on interpersonal trust (i.e. trusting belief and trusting intention). While various constructs have been introduced by past researches as antecedents of interpersonal trust and that can be adopted in the present study, however, in these researches, we found there is still room for improvement. First, the constructs had been studied separately, but not in one big model. There is yet any model that includes all of these constructs which have been used as trust antecedents in a single model. Combining these constructs in McKnight’s trust model would certainly produce a comprehensive model and most importantly allow us to determine among them which antecedents is the most significant factor affecting initial trust. Second, reviewing these constructs, it appears that a range of constructs with conceptual similarities among themselves. These constructs, although some are labelled differently, in fact, they are essentially the same concept. Consequently, it appears various constructs, even some with different terms are referred to the same concept in many studies, yet there is no agreement in term of labelling. Thus, there is a need to conceptually evaluate the definition and measurement scale of the constructs, classify them and then re-label them before examining the effect of these bundled constructs on interpersonal trust (i.e. trusting belief and intention). This study attempts to improve their researches in this area. We seek (1) to classify the constructs that have been proposed by McKnight’s trust related studies as antecedents of interpersonal trust by evaluating the constructs’ properties (i.e definition and measurement), and (2) to incorporate all these constructs in extending the McKnight’s trust model.

2.0 METHODOLOGY

This study has searched the “trust” articles through a well-known e-database: Elsevier’s Scopus and Thomson Reuter’s Web of Science. Instead of using “initial trust”, we used the keyword “trust” in the search process. This is to minimise the risks of omitting the relevant articles which may have omitted the initial trust in their keyword. In our general keyword search, over 10,000 articles for the period between 2007 and 2016 were generated. Subsequently, we performed content reviews and then screened over the articles by implementing inclusion criteria (i.e. trust studies based on McKnight’s trust concept, context of web transaction, and empirical findings). As a result, eight articles were found to meet the criteria (see Table 1).

Table 1: Antecedents of interpersonal trust in McKnight’s trust and extended models

Author (s)	Antecedents of Interpersonal Trust
McKnight et al. (2002a)	Perceived site quality, faith in humanity, trusting stance, situation normality, structural assurance
McKnight et al.(2002b)	Vendor reputation, Site quality, Structural assurance
Lowry et al. (2007)	Familiarity, Credibility
Lowry et al. (2008)	Brand awareness, Brand image, Website quality, Institution based trust
Yang et al. (2009)	Shopping Website’s Perceived Ethical Performance
Eastlick and Lotz(2011)	Information privacy concerns, perceived online retailer reputation
Kim and Kim (2011)	Third Party Presence, Perceived Privacy Empowerment
Lowry et al. (2014)	Disposition to trust, Surface credibility

■ 3.0 LITERATURE REVIEW

Based on Table 1, it is found that past researches have added 21 constructs as antecedents to interpersonal trust. These constructs are mostly drawn from prominent theories and concepts (i.e. branding association trust model, source credibility theory, WebQual model, and so on) to empirically examine their effects on interpersonal trust (i.e. trusting beliefs and trusting intention). Reviewing these constructs, surprisingly, it appear that a range of constructs with conceptual similarities among themselves. These constructs, although some are labelled differently, in fact, they are essentially the same concept. For example, comparing Lowry et al.'s (2007) and Lowry et al.'s (2008) research models, it found that logo familiarity is very close to brand awareness. Consequently, it appears various constructs even some with different terms are referred to the same concept in many studies. There is a need to make a clearer term labelling these constructs with similar meaning. Like Venkatesh et al.(2003), the UTAUT model's developers, who found conceptually similarities of constructs across models and based on their classification procedures, this study have classified the constructs which are found as antecedents of interpersonal trust in the reviewed literature by evaluating and comparing them across studies, and then using an appropriate term labelling these constructs.

Specifically, first, the constructs which have been used as antecedents to interpersonal trust and particularly their theoretical background where they come from as well as their scale sources were identified. Next, these constructs' properties (i.e. definition along with the measurement scale if available) were assessed and those constructs with similar properties among them were subsequently positioned under one representative construct. The representative construct is selected from within the constructs with similar properties, is a theoretically derived construct and has been empirically validated. Based on the evaluation and classification, seven fundamental, theoretical based constructs were identified to represent the constructs that have been used by the past researches as antecedents to interpersonal trust (see Table 2). They are: (1) situation normality and (2) structural assurance with each grounded in Web Trust Model (McKnight, Choudhury and Kacmar, 2002a); (3) disposition to trust with each grounded in the Trust-distrust-credibility-model(Lowry, Wilson and Haig, 2014); (4) website quality and (5) e-vendor reputation with each grounded in Trusting Building Model(McKnight, Choudhury and Kacmar, 2002b); (6) Co-brand awareness and (7) Co-brand image with each grounded in Branding Association Trust Model(Lowry *et al.*, 2008).

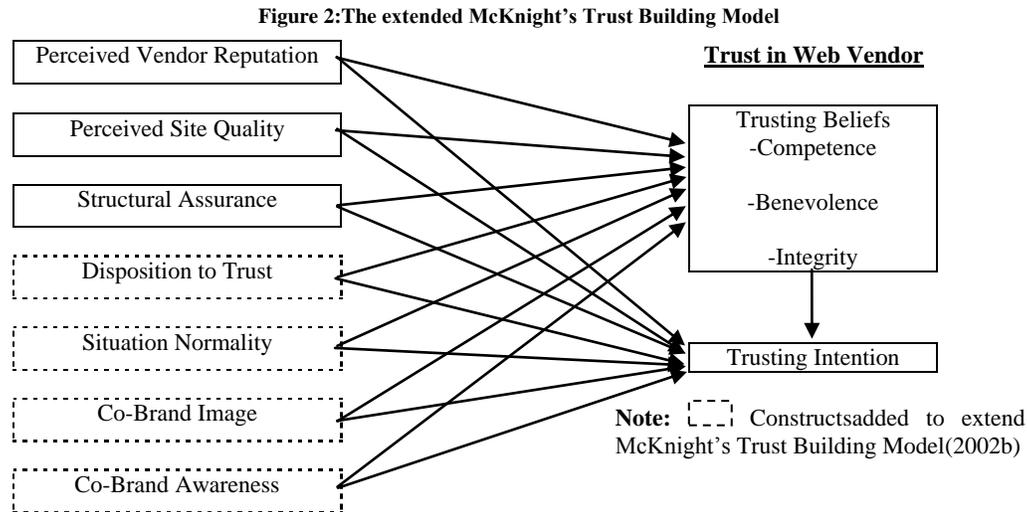
Table 2: Summary of the antecedents of interpersonal trust in McKnight's trust and extended models

Author (s)	Situation normality	Structural assurance	Disposition to trust	Perceived website quality	Perceived vendor reputation	Co-brand image	Co-brand awareness
McKnight et al. (2002a)	x	x	x	x			
McKnight et al. (2002b)		x		x	x		
Lowry et al.(2007)						x	x
Lowry et al. (2008)	x	x		x		x	x
Yang et al.(2009)				x	x		
Eastlick and Lotz(2011)		x			x		
Kim and Kim(2011)					x		
Lowry et al. (2014)			x	x			

Reviews of literature as shown in Table 2, it is found that the antecedents of interpersonal trust that have been proposed by studies, were incorporated separately but not in a single model. The models are seemingly different from each other, as one model includes some trust antecedents whereas other models excluded them out. For example, the Lowry et al.'s (2007) research model ignored the construct namely "perceived web vendor reputation" while McKnight et al.'s(2002b) and Eastlick and Lotz(2011) considered it is one of the essential constructs that affect customer's trust in the web vendor. In other word, none of the researchers included all of the constructs that they have been proposed as antecedents of interpersonal trust into one, big model. Including all of these antecedents of interpersonal trust would produce a comprehensive model, increases the explanatory power of individual's initial trust model in online transaction, and most importantly assessing their effect on initial trust would be able to show which of them is most significantly affecting initial trust in an online business. Essential insight which is significant for the online business, especially run by small and medium sized company, on how to gain a very first trust from customers that can enable the business to success. The success that initial trust can lead to customer's first purchase and in turn lead to repeat purchase.

■ 4.0 CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

The review of and gap in the literature lead to the need and motivates this study to develop a comprehensive McKnight's trust model in order to investigate customer's initial trust in online transaction. One of the McKnight trust model, that is McKnight et al.'s(2002b) Trust Building Model (which consists of two interrelated trust components, i.e. trusting beliefs and trusting intention, and three antecedents to trust, i.e. perceived vendor reputation, perceived site quality, and structural assurance of the web) is adopted and is proposed to include disposition to trust, situation normality, co-brand image and co-brand awareness in the model to test their effect on trust (i.e. trusting beliefs and trusting intention). Given that the present study is only interested at examining factors affecting customer initial trust in anonline vendor, thereby the trust's effects, i.e. behavioral intentions, in the model were excluded. And, due to the exclusion of these behavioral intentions, its' associated antecedents (i.e. perceived web risk) was excluded too.Based on McKnight's research works, all constructs in the proposed research model are reflective constructs except trusting beliefs are modeled as a formative construct which consists of three sub-constructs: competence, benevolence, and integrity. The conceptual model is shown in Figure 2. The research hypotheses associated to the model are discussed in the following subsections.



Initial Trust: Trusting Beliefs and Trusting Intention

In the context of online transaction and in this study, (1) trusting belief refers to one's beliefs that the unfamiliar e-vendor is benevolence, competent and has integrity and (2) trusting intention refers to one's willingness to depend on the unfamiliar e-vendor. If customers strongly feel an unknown e-vendor is kind hearted, capable, and honest, they would think this vendor can be relied on and thus increases their inclination to rely on the vendor. This assumption has been made by McKnight et al. (1998) and then empirically confirmed by McKnight et al. (2002b), Lowry et al. (2008), Yang et al. (2009), Eastlick and Lotz (2011), Kim and Kim (2011). Based on the above assumption and empirical supports, this study proposes that:

H1: Trusting beliefs positively affects the trusting intention in an unfamiliar web vendor

Situation Normality

Situation normality refers to one's belief that the Internet environment is appropriate, proper order, and favourable for online transaction. When customers have no information about a web vendor and if they strongly believe that the Internet environment is in proper order and that their role and the web vendors' role in the Internet are appropriate and conducive to success, this positive believing should aid them to strongly sense the vendor will possess trustworthiness characteristics and will not cheat them. In addition, this positive belief will make them feel comfortable enough to form trusting intention toward the vendor. This assumption made by McKnight et al.'s (2002a) has been confirmed by Lowry et al. (2008). Accordingly, it is posited that:

H2a: Situation normality positively affects the trusting beliefs in an unfamiliar web vendor

H2b: Situation normality positively affects the trusting intention in an unfamiliar web vendor

Structural Assurance

Structural assurance refers to one's belief that the Internet has protective legal or technological structure that assures every business in that environment is safe and secure to operate. In online transaction, if customers feel very safe in the Internet where every transaction can be done safely, they would tend to believe that vendor will behave trustworthily. Besides, they are more likely to rely on the vendor as they feel legally protected, believing that technological Internet safeguard will protect them from i.e. privacy loss and financial loss. This postulation has been made by McKnight and Chervany (2001) and then empirically proven by McKnight et al. (2002a, 2002b), Eastlick and Lotz (2011). Thus, it is hypothesized that:

H3a: Structural assurance positively affects the trusting beliefs in an unfamiliar web vendor

H3b: Structural assurance positively affects the trusting intention in an unfamiliar web vendor

Disposition to Trust

Disposition to trust refers to one's general willingness to trust others. People with high level of trust disposition tend to have a strong belief that others are trustworthy and will not take advantage of them. In the online context, if customers have no prior information about a web vendor, those who always believe people are trustworthy and will not cheat them, would also think that the vendor should act in a similar

way. Besides, a strong disposition to trust lead customers to have high inclination to rely on a vendor due to their trust disposition engender them a high tendency to trust everyone as thought everyone is trustworthy. This postulation has been made and empirically confirmed by Lowry et al. (2014). According to the above postulation and empirical support, it is hypothesized that:

H4a: Disposition to trust positively affects the trusting beliefs in an unfamiliar web vendor

H4b: Disposition to trust positively affects the trusting intention in an unfamiliar web vendor

Perceived Vendor Reputation

Perceived vendor reputation refers to one assign positive or negative attributes to the e-vendor based on an evaluation of the vendor's past performance via second hand information. The sources of this information can be, i.e. the website itself and social media. Reputation is a valuable asset and building a good reputation is difficult as it requires a long term and significant monetary and time investment. Thus, people generally believe that the company with established good reputation will be reluctant to squander those efforts or risk their reputation-building investment by acting opportunistically for short-term gains (Koufaris and Hampton-Sosa, 2004). So, when the e-vendor is new to customer, the established reputation of the vendor that the customer perceives will aid them to believe that vendor will behave trustworthily and will not cheat them. Moreover, i.e. the vendor's website that communicates their reputation can alleviate one's perceptions of risk and insecurity which are caused by one's absence of readily available interaction with the vendor and thus engender one's willingness to depend to the vendor. This assumption has been empirically proven by McKnight et al. (2002b), Yang et al. (2009), and Eastlick and Lotz (2011). This study follows the above assumption and empirical support, and suggests that:

H5a: perceived vendor reputation positively affects the trusting beliefs in an unfamiliar web vendor

H5b: perceived vendor reputation positively affects the trusting intention in an unfamiliar web vendor

Perceived Website Quality

Perceived website quality refers to the extent to which one's general perception of navigability, aesthetics, and functionality of the website. The website is always the first interaction a customer has with an e-vendor. As customer lack the ability to directly observe the web vendor, they make a trust reference on the vendor based on what they observe in the website. According to Dion et al. (1972), people generally view physically attractive person as "good" person. Therefore, if customers perceive that the vendor's site is high quality, their "what is beautiful is good" stereotype will lead them to believe that the vendor will have trustworthiness characteristic. Furthermore, a first good impression about website quality will make customers feel comfortable and increase their inclination to depend on the vendor. This presupposition has empirically been proven by McKnight et al. (2002a), McKnight et al. (2002b), Lowry et al. (2008), Yang et al. (2009), and Lowry et al. (2014). Thus, it is postulated that:

H6a: Perceived website quality positively affects the trusting beliefs in an unfamiliar web vendor

H6b: Perceived website quality positively affects the trusting intention in an unfamiliar web vendor

Co-Brand Awareness

Co-brand awareness refers to one's familiarity with the e-vendor's business co-partner brand. Familiarity increases through repeated advertising exposure over time. New websites usually display reputable third-party logo of products and services to make people feels that the website will not betray the co-partners who allow the website to share their brand image by behaving untrustworthily. The untrustworthiness action can damage their co-partner image, so the vendor should act trustworthily in order to maintain the business alliance. When customers visit a unknown website and found a third party brand that they are very familiar with, this will strengthen their intuition that the e-vendor will not act untrustworthily in order not to harm the reputation and thus leads them to strongly believe that the vendor has trustworthiness characteristics. In addition, it also leads them to have a high intention to rely on the e-vendor due to the reduction of uncertainty and fear when using the website that they are not known. This assumption has been empirically proven by Lowry et al. (2007) and Lowry et al. (2008). It is, therefore, postulated that:

H7a: Co-brand awareness positively affects trusting beliefs in an unfamiliar web vendor

H7b: Co-brand awareness positively affects trusting intention in an unfamiliar web vendor

Co-Brand Image

Co-brand image refers to the set of positive or negative associations a consumer has with a co-brand, partnering with the e-vendor. New websites generally displays logo of the products or services to leverage the brand power of other organizations. Posting a well respected logo in an unknown website will create a very first impression about the logo and make customers to infer the e-vendor's should have attributes similar to the logo's provider that the vendor's allies with. Thus, lead them to strongly believe that vendor has characteristic beneficial to them. Besides, it also increases their tendency to rely on the vendor due to the sense of involvement of good brand's partner in the vendor's business, making them feel less risky when dealing with unknown vendor. This has been proven by Lowry et al. (2007) and Lowry et al. (2008). Accordingly, it is posited that:

H8a: Co-brand awareness positively affects the trusting beliefs in an unfamiliar web vendor

H8b: Co-brand awareness positively affects the trusting intention in an unfamiliar web vendor

5.0 CONCLUSION

This paper contributes academically. First, several constructs related to antecedents of interpersonal trust which have been incorporated in and extended the McKnight's trust models, were identified by comprehensively evaluated the constructs' properties and classification. They are situation normality, structural assurance, disposition to trust, perceived vendor reputation, perceived website quality, co-brand image and co-brand awareness. Second, we proposed a comprehensive McKnight's trust model by assembled above all antecedent of interpersonal trust. Apart from theoretical value, the research outcome will benefit the small and medium sized business. This study seeks to find out the factors of which can help to establish customer's initial trust, and by gaining understanding it and this knowledge might become the sources for business especially in small scale to success. It can assist the business that plan to venture online to find ways in altering its business strategies and tools to become better at serving the customer's needs when it comes to establishing initial trust. Our study is not free of limitation. A comprehensive model was proposed, however it has yet been empirically validated. In future research, we suggest a quantitative method to validate this conceptual model. Specifically, a two-stage of survey study will be carried out in local universities and 400 university students are suggested as representative sample. In a selected less-known website, respondents will be encouraged to go through the entire online buying process up to but excluding the clicking of the payment button. After the website visit, they will be required to response a closed-ended questionnaire. The collected data will be then analysed by using variance-based structural equation modelling (SEM) to test the research model.

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*Dedication:

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