

MODEL OF CONSUMER TRUST FOR E-COMMERCE IN INDONESIA

Theda Renanita¹, Jony Eko Yulianto²

Universitas of Ciputra Surabaya
INDONESIA

Emails: [1theda.renanita@ciputra.ac.id](mailto:theda.renanita@ciputra.ac.id), [2jony.eko@ciputra.ac.id](mailto:jony.eko@ciputra.ac.id)

ABSTRACT

Internet usage in Indonesia has been on the rise. In Indonesia, the year to year number of active internet users are expected to increase exponentially. In a 2014 survey, Indonesia placed six on the largest internet user population of the world. A joint research by Indonesian E-Commerce Association (idEA), Google Indonesia, and TNS (Taylor Nelson Sofres) revealed that in 2013, the Indonesian e-commerce market's worth reached as much as 8 billion US dollars or equivalent to 94.5 trillion Indonesian rupiahs. The number is forecasted to triple the amount into 295 trillion rupiahs by 2016. Not only does internet function as means to seek information, but it's now been a viable platform for business activities. This industry, revolving around online transactions, is called e-commerce. In e-commerce, more so than conventional business, trust is paramount. The present study sought to develop a model for consumer trust in e-commerce business in Indonesia. A scale used as measurement for this study was derived from a previous scale by McKnight and Chervany that consisted of six parts: disposition to trust, trusting belief, trusting intention, personal innovativeness, general web experiences, and perceived quality. The study was attended by 195 subjects. Sampling was done through convenience sampling. Method employed for data analysis was path analysis. All this resulted in a model of e-commerce consumer trust.

Keywords: e-commerce, trust, model

INTRODUCTION

The internet plays a most crucial role in the world of modern communication. Indonesia, like everywhere else, has been experiencing a surge of internet users in the last few years. A data collected by E-Marketer, a market research foundation under the auspices of Ministry of Communication and Informatics, named Indonesia as the sixth largest internet user-populated country in the world with 83,7 million users to its name. This number is predicted to drastically grow in the years to come.

As internet usage becomes widespread, so too do businesses utilizing it become commonplace, as shown by the proliferation of e-commerce. A joint research by Indonesian E-Commerce Association (iDEA), Google Indonesia, and TNS (Taylor Nelson Sofres) found that the Indonesian e-commerce market is worth as much as 8 billion US dollars or approximately 94,5 trillion Indonesian rupiahs. It is expected to have swelled three times the amount by 2016.

Data collected from Nielsen Global Survey of E-Commerce in first quarters of 2014 shows that e-commerce activities in Indonesia can be distinguished into five large groups: flight booking (55%), hotel booking (46%), e-book sales (40%), accessories, clothes, and shoes sales (37%), and event ticket booking (34%). These online transactions are most commonly done from phones, tablets, and computers.

Although consumers have been utilizing e-commerce to enhance their shopping experience to great effect, there is nevertheless still an air of hesitation within the consumer market when it comes to using digital-related services. Much of their misgivings stems from concerns about the security of information they submitted (i.e. credit card details).

By its nature, e-commerce businesses are different from conventional businesses. The internet is a virtual environment, and within it no direct contact occurs between the seller and buyer. This is why, more so than in conventional business, every transaction necessitates trust. Trust is defined as the willingness to be dependent towards goods or services vendor (Chen and Dhillon, 2003).

Maintaining trust is essential and yet can be a challenging and delicate task. The presence of trust helps consumers in coping with the uncertainty that pervades every transaction. By trusting, potential buyers are more willing to overlook risks, which in turn may affect purchase intentions (Chang and Chen, 2008; Pavlou and Gefen, 2004; Pavlou and Fygenson, 2006). Previous negative experience, negative publicity from the vendor or the item's part, transactions that was not on par with set expectations, and negative perception towards the vendor are several factors that may break a consumer's trust (Chen, Wu, and Chang, 2013).

Chen and Dillon (2003) states that trust may come from different sources. First, trust comes from within the consumer themselves. The capacity to trust is developed during childhood, and this plays a part in determining one's willingness to trust and believe in the good of others. Next is from the vendor, such as their size, reputation, and brand recognition. Website characteristics also matters, namely the way it is designed with aesthetics, ease of use, and comfortable reading experience in mind. Lastly, trust is affected by the interaction between consumer's expectations toward vendor's behavior.

There are numerous models that elaborate on the concept of trust. Researchers define trust according to their discipline of study. Psychologists often define trust as a tendency to believe in others. In social psychology, trust is a part of the trustee's cognition. In sociology, trust is a characteristic of institutional environment.

An example of an established trust model is Kee and Know (1970). The two states that trust is dispositional. Another model is Mayer's (1995), who breaks down trust into several components, such as propensity to trust, trust (willingness to be vulnerable to another), and perceptions of trustworthiness (cognitions). The present study is measuring trust as explained by McKnight and Chervany (2002). This study aims to explore the model of consumer trust towards e-commerce industry in Indonesia.

RESEARCH METHODS

The present study was a quantitative research that sought to find the degree of effect of several variables. These variables were disposition to trust, institution-based trust, trusting belief, and trusting intention.

The measures used in this study was a questionnaire developed based on a previous scale by McKnight, Choudhury, and Kacmar (2002) on trust in e-commerce.

All scales had undergone validity and reliability testing prior to administration. Validity was measured through content validity, which means that the measures are deemed valid when its items have represented the aspects it is meant to measure. Alpha Cronbach was used to attest the measure's reliability. Finally, the scales were tested on 103 subjects.

Reliability test indicated that all scales were reliable. Total number of items and reliability coefficient for each of the scales are elaborated on the table below :

Table 1. Reliability coefficient and total of valid items

No	Scale	Alpha Cronbach	Total of valid items
1	Dispositional to trust	0,795	12
2	Trusting beliefs	0,942	11
3	Trusting intentions	0,910	16
4	Personal innovativeness	0,843	4
5	Perceived site quality	0,923	5

Population for this study was composed of e-commerce industry consumers in Indonesia. Sampling method used was convenience sampling with a total of 195 subjects. The criteria for subjects in order to be included in this study were : (1). Have at least done three online transactions with one vendor. (2). Is at least 15 years old, to ascertain the assumption that the subjects of study had done past transactions in full consent and conscience.

The present study intended to test the following 5 hypotheses:

- a. Disposition to trust has effect towards personal innovativeness
- b. Disposition to trust has effect towards trusting beliefs
- c. Disposition to trust has effect towards trusting intentions
- d. Perceived site quality has effect towards trusting beliefs
- e. Perceived site quality has effect towards trusting intentions

Analysis

Data obtained in this analysis was be processed via path analysis. According to Kerlinger (1992), path analysis is an application of multi-regression analysis, through which it is possible to test a complex hypothesis and get a comprehensive model of direct and indirect effect between variables.

RESULT

Collected data was processed using path analysis. Analysis was conducted through multiple path structures. Result of the analysis is shown below.

Testing 1. Test of disposition to trust and perceived site quality towards trust beliefs

Testing 1 examined the effect of disposition to trust and perceived site quality toward trust beliefs. Analysis results showed that both variables had effect towards trust beliefs as can be seen in the path coefficient 0,213 for the effect of disposition to trust towards trust belief and path coefficient 0,518 for the effect of perceived site quality towards trust belief. No multicollinearity occurred since the value of VIF=1,380.

Table 2. Path analysis for disposition to trust and trusting beliefs

Effect between variables	Path coefficient (Beta)	f value	F value	Test result	R ²
Disposition to	0.213	3.598	101.185	Ho rejected,	0,513

trust->trusting beliefs					Ha accepted
Perceived site quality->trusting beliefs	0,518	0,929	101.185	Ho rejected, Ha accepted	

Table 3. Testing of disposition to trust and perceived site quality towards trust intentions

Testing 2 was conducted for disposition to trust and perceived site quality towards trust intentions. Analysis results revealed that both variables had effect towards trust intentions. The effect of disposition to trust towards true intentions is indicated with correlation coefficient 0,267. The effect of perceived site quality towards trust intentions is seen in correlation coefficient 0,467. No multicollinearity occurred since VIF=1,380.

Table 3. Path analysis for disposition to trust and perceived site quality towards trust intentions

Effect between variables	Path coefficient (Beta)	t value	F value	Test result	R ²
Disposition to trust->trusting intentions	0,267	4,131	69,601	Ho rejected, Ha accepted	0,420
Perceived site quality →trusting intentions	0,467	7,241	69,601	Ho rejected, Ha accepted	

Testing 4. Testing of trust beliefs and trust intentions

Test results for trust beliefs and trust intention showed that both had correlation, with a coefficient of 0,681.

Table 4. Path analysis for trust beliefs and trust intentions

Effect between variables	Path coefficient (Beta)	t value	F value	Test result	R ²
Trust beliefs→trust intentions	0,681	12,908	166,608	Ho rejected, Ha accepted	0,463

Testing 5. Disposition to trust towards personal innovativeness

Test results for disposition to trust and personal innovativeness indicated that both were correlated. The correlation coefficient is 0,454.

Table 5. Disposition to trust towards personal innovativeness

Effect between variables	Path coefficient (Beta)	t value	F value	Test result	R ²
Disposition to trust → Personal Innovativeness	0,454	7,069	49,498	Ho rejected, Ha accepted	0,206

Below is a summary of all path coefficients and effects between variables.

Table Path coefficients and direct and indirect effects between variables

Effects between variables	Path coefficients (beta)		Total	Hypothesis testing result
	Direct	Indirect (through trusting beliefs)		
Disposition to trust → personal innovativeness	0,454		0,45	H1= accepted
Disposition to trust → trusting beliefs	0,213		0,518	H2= accepted
Disposition to trust → trusting intentions	0,267	0,213x0,681=0,1833	0,450	H3= accepted
Perceived site quality → trusting beliefs	0,518		0,693	H4= accepted
Perceived site quality → trusting intentions	0,467		0,607	H5= accepted
Trusting beliefs → trusting intentions	0,681		0,681	H6= accepted

Below is a graphic representation of the table above :

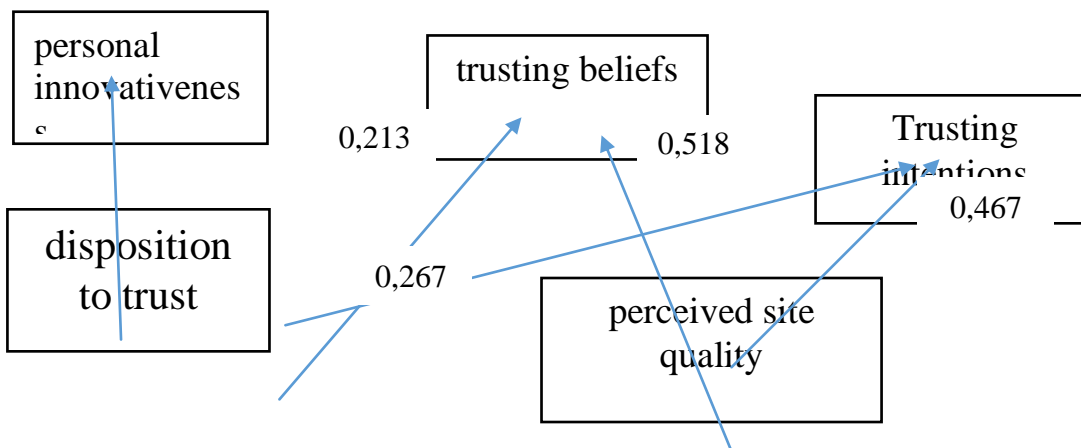


Figure 1. Model tested in the present study

Dispositional to trust had direct effect towards personal innovativeness, with the degree of effect being 0,45. Disposition to trust was confirmed to have direct effect towards trusting beliefs with 0,213 degree of effect. Disposition to trust had direct effect towards trusting intentions, with 0,267 degree of effect, and also indirect effect towards trusting beliefs with 0,450 degree of effect.

Perceived site quality had direct effect towards trusting beliefs and trusting intentions with 0,518 and 0,467 degree of effect, respectively. All of these means that all proposed hypotheses were proven.

The present study sought to test the effect of disposition to trust towards personal innovativeness. Personal innovativeness is a personality trait, described as a desire or will to change. It indicates the extent of one's attitude in the face of change. Personal innovativeness becomes a factor in a decision of whether to adopt or reject an innovation (Agarwal and Prasad, 1998). In this study, personal innovativeness is the consumer's will to visit and explore the myriad e-commerce websites. Analysis results showed that disposition to trust affects personal innovativeness.

A study by Agarwal and Prasad (1998) found personal innovativeness correlates with intention to use Information Technology (IT). The present study found that disposition to trust has effect towards personal innovativeness. From the explanations above, the possibility of increasing online shopping in conjunction with disposition of trust can certainly not be dismissed.

Trust's role in interpersonal and commercial relationship is pivotal. In risky, uncertain situations that require interdependence, trust is the one factor that holds everything together. The present study tested the concept of trust, which are disposition to trust, trusting beliefs, and trusting intentions. Disposition to trust includes the faith in humanity and trusting stance subconstructs. Trusting beliefs include competence, benevolence, integrity, and predictability beliefs. Trusting intentions include willingness to depend and subjective probability of depending on the web vendor (Knight and Chervany, 2002).

Disposition to trust both directly and indirectly affects trusting intentions, with the former having a lesser hold. The connection between these three variables can be explained with the attitude theory as stated by Ajzen and Fishbein (1980). The two states that every action is predated by intent. Said intent may arise through the combination of personal attitude, subjective norm, and perceived behavioral control. These three factors are rooted in one's personal beliefs.

Trusting intentions are proven to be affected by trusting beliefs. Specifically, this means that a consumer needs to believe in three things when heading to a certain e-commerce vendor. First, consumer obtains needed information from the vendor or if they need help, they could consult the website. Second, the vendor acts the way the consumer expects them to. Third, the e-commerce vendor has integrity in that they're trustworthy and do not fall short on their promises. In accordance with Ajzen and Fishbein's theory, this intention becomes a prerequisite for the occurrence of a behavior, specifically online shopping behavior.

Trusting beliefs are affected by disposition to trust. One will be more compelled to depend on other people when the latter fits the situations and persons. Trusting beliefs in e-commerce consumers are formed by two factors: faith in humanity, which is when similar attributes are shared with the e-commerce vendor, and trust stance, which is personal familiarity with the e-commerce vendor. In choosing an e-commerce vendor, consumers are likely to settle with a vendor with whom they share something in common. One example of this shared quality is religion. Azzam, Qiang, Abbas, and Abdullah (2012) found in their study that Muslim

consumers were likely to choose vendors that put and emphasize their Muslim characteristics at the forefront of their website.

Aside from disposition to trust, trust intentions are also affected by perceived site quality. Perceived site quality affect trust intentions both directly and indirectly via trust beliefs. Directly, consumer perception towards website quality may strengthen trusting intentions. Indirectly, a potential consumer shapes their beliefs through attributes that are present on the website, such as testimonies written by past customers, or any other displayed information that can create and enforce the perception of web vendor's benevolence, integrity, competence, and predictability (i.e. contact information, policy for returning ordered items, FAQ, and feedback system). Consumers will harbor positive perception towards a website when it contains useful and clearly conveyed information.

Conclusion and suggestions

The study has established a model of consumer trust toward e-commerce in Indonesia. It comprises dispositional to trust, personal innovativeness, trust beliefs, trust intentions, and perceived site quality. They are further divided into two elements, internal and external. Internal element refers to the disposition of trust from individual consumer, while external element refers to the trust built by the impression given by an e-commerce website.

Owners of e-commerce industry would do well to consider disposition to trust and perceived site quality, as these two variables have been found to bolster consumer's trust. Owners can be more attentive to the design of their e-commerce website and attach necessary information on it. These necessary information include, but not limited to transaction details and testimonies from previous customers that can help build a positive image for the business vendor.

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