**The Effect of Trust Dimension toward E-Commerce**

**Customers’ Participation: Study on E-Book Customers in Open University of Indonesia**

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E-Commerce is no longer new to modern countries. With regard to this relatively new business exercises especially for Indonesia, there are some interesting phenomena to consider as, for example, how far customers put their trust in e-commerce vendors and how their trust has effect on the level of intention in *e-commerce*. This research aims at analyzing (1) the effect of vendor’s ability*,* benevolence*,* and integrity variables toward e-commerce customers’ trust in Open University of Indonesia (Universitas Terbuka/UT); (2) the effect of vendor’s ability*,* benevolence*,* and integrity variables toward the level of e-commerce customers’ participation in UT; and (3) the effect of trust variable toward level of e-commerce customers’ participation in UT. This research makes use of UT’s online shop users as research samples while using likert scale questionnaire for data collection. Furthermore, the questionnaires are provided on UT’online shop website. For data analysis method, this research uses Structural Equation Model or SEM as abbreviated. Out of three predictor variables (ability, benevolence, and integrity), it is only online shop’s ability and integrity that have positive and significant effect on customers’ trust. On the other hand, online shop’s ability, integrity, and customer’s trust have positive and significant effect on e-Book customers’ participation in UT’s online shop.

Key Words: *e-commerce, participation, trust, ability, benevolence, integrity*

**INTRODUCTION**

The textbook has played an important role in higher education for decades developing critical thinking (Errington & Bubna-Litic, 2015). Given the numerous applications of technology to an educational setting in recent years, it is no surprise that some of these applications are to the traditional textbook. Applying technology to the textbook has created the electronic textbook (e-textbook). There are both faculty and student motivations for adopting e-textbooks. From a faculty perspective, e-textbooks allow content to be updated by the publisher between editions of a traditional, paper-based textbook (Stewart, 2009). In dynamic content areas this is an important feature. A student motivation for purchasing an e-textbook is its lower cost, compared to a traditional paper-based textbook. Some of the new e-textbook pricing models include free access to read online, donations to a program or cause, or paying an academic term fee (Beezer, 2009; Robinson, 2011; Stewart, 2009).

University students view computer ownership, social networking, texting, and tweeting as ubiquitous functions (Ellison, Steinfield, & Lampe, 2007), making the adoption and use of an e-textbook a natural transition. Mobility is also a consideration as students are trading university email systems for more mobile technologies such as Skype, Facebook messaging, and web-based emails (Brown, 2009; Niemuth, 2010). With a desire for mobility and the familiarity with technology, why haven’t more students accepted and adopted e-textbooks?

It is within the context of students’ adoption of e-books that this research is based. Specifically, the research presented examines students’ attitudes regarding the use of e-textbooks and their behavioral intentions to purchase them in the future. The research is grounded in social cognitive theory. The objective is to link student attitudes and behavioral intentions to observable and manageable variables using this model. The ultimate hope is to make recommendations regarding how faculty, if they desire, can influence the manageable variables to successfully influence students’ attitudes and behavioral intentions to voluntarily purchase e-books.

According to Habibi and Hajati (2015) the trust, the primary component in the business transaction, is actually built on the following basis, namely ability, benevolence, and integrity. These three closely related aspects take important role in forming the trust that someone has to believe in media, transaction and commitment as offered in e-Commerce.

Indonesia as one of the developing countries in the world has some significant differences in practicing e-Commerce when compared to other modern countries in terms of the regulation, law and customers’ attitude.

Universitas Terbuka (UT) is an institution of higher education that implements distance education in Indonesia. UT provides learning materials specifically designed for independent learning. This mode of learning makes the university has its own characteristics since it requires the learners to study independently through a variety of media, either printed or non-printed media. UT has produced various Information and Communication Technologies (ICT)-based incentives in media delivery systems and instructions. UT has also provided some of their educational products through UT on-line bookstore. This store sells printed (books) and non-pinted (e-books) materials. With regard to UT’s newly implemented e-Commerce, the customers’ trust in conducting online transaction becomes interesting phenomena to look into in particular study.

**LITERATURE REVIEW**

**E-Book**

Although the pedagogical methods for teaching have changed over the years, a course textbook is still an important resource to support lecture material. Providing content electronically is a rapidly growing industry for education (Hill, 2010). E-books, digital textbooks, and online textbooks represent some of the terms being used to describe transferring textbook information from a paper-based version to a digital format (Seidel, 2009). This research uses the term e-Book because it encompasses the digitization of academic book information retrieved via a computer whether viewed online or downloaded to a computer. The e-Book term focuses on the mechanism for retrieving as well as reading the electronic, digital information and not the media used to view the information (i.e., electronic reader, laptop, printed electronic information).

While the use of electronic content has grown in education, students need to accept the changing content retrieval and use methods. Student acceptance of the technology is dependent on the user believing he or she will benefit by the change (Dulle and birch). Increasing availability of e-textbooks in the past few years is providing more opportunity for students to use digital textbook content (Reynolds, 2011) thus helping drive down the cost of e-textbooks indicating a strong determinant of student acceptance. (Weisberg, 2011) conducted a 2-year longitudinal study using a variety of textbook delivery methods and found students becoming more receptive to e-textbooks. Gender, computer experience, and previous use of e-texts weren’t significant in swaying student attitudes toward accepting e-Books (Woody, Daniel, & Baker, 2010). Although e-Books provide students with portability and convenient access a user still needs to change their behavior.

Most learning objects discussed today are comprised of electronic content or econtent that has been defined by Shirattudin, Hassan, and Landoni (2003) as information that is made available in digital formats and is viewed on a screen rather than on paper. E-Books are just one example of an e-content based learning object whose benefits include: hyper linking, nonlinearity, data density, search ability, enhanced presentation, and multimedia features (Shirattudin et al., 2003).

A technology that is mandatory may inflate its use, but the perception of usefulness is still present (Iivari [2005](file:///C%3A%5CUsers%5CADI%20S%5CDownloads%5Cintention_to_buy_ebook.doc#page20)). Rai et al. ([2002](file:///C%3A%5CUsers%5CADI%20S%5CDownloads%5Cintention_to_buy_ebook.doc#page20)) defined ‘‘quasi-volitional IT use’’ as un-mandated use of a system but not completely volitional because of social pressure and subjective norms in the environment. This means that a student may not be required to use the technology, but the context influences their behavior to use it. The adoption or purchase of an e-textbook could be completely volitional or non-volitional depending upon the textbook options students are given by the instructor. However, many students today are comfortable purchasing their own substitute textbook from one of several sources available to them regardless of what the instructor selects for the book order. In this regard, purchasing an e-textbook or another form of a textbook is, or might well be a volitional act by the student.

In 2004, e-Books represented the fastest-growing segment of the publishing industry. During the first quarter of the year, more than four hundred thousand e-Books were sold, representing a 46 percent increase over the previous year’s numbers. E-books continue to gain acceptance with some readers, although their place in history is still being determined (Silas Marques de, 2012). After reviewing the results produced by the study conducted by Anonymous (2010), that 74% of college students prefer a print textbook for classroom use, we still have reasons to keep on making the same questions. Non-the-less, (Abram, 2010a) presents advantages of e-Books, such as ease of transport, access, ease of navigation, educational support, searching, and environmental impact, amongst others, and concludes – “When well-constructed, they become the framework for the entire pedagogy of a course, a grade, a subject, or more… If we were to not take steps to improve the learning experience and add additional features in the shift to an electronic format, we would be missing a remarkable opportunity” (Abram, 2010b, p. 34).

**e-Commerce**

e-Commerce refers to **Electronic commerce**, commonly written as **e-commerce**, is the trading or facilitation of trading in products or services using computer networks, such as the Internet (Becker & Global, 2008). Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life-cycle, although it may also use other technologies such as e-mail.. Anyone can make use of e-Commerce with another party regardless space and time. World Wide Web (WWW) is the most popular media in e-Commerce activities. The endless improvement of the internet service offered by e-Commerce web system is likely to bring about great impact on the level of sale and customers satisfaction (Åberg, Shahmehri, Tekniska, Linköpings, & Institutionen för, 2000).

**Trust**

Trust is a foundation in conducting business activities. Broadly speaking, business transactions between two parties or more can only occur if they trust each other. Like a catalyst, trust serves to smooth satisfactory transactions as expected by those parties (Yousafzai, Pallister, & Foxall, 2003). Many disciplines have their own definitions about trust (Mukherjee & Nath, 2003) especially in the field of psychology in the early periods. However, later trust draws the attention of other sciences (Al-Nasser, Yusoff, Islam, & AlNasser, 2014; E. Kim & Tadisina; Murphy & Blessinger, 2003; Riegelsberger, Sasse, & McCarthy, 2003), including the object of interest in e-Commerce. In this case, trust is defined as the trait of believing in reliability of others who will fulfil all of the obligations as required.

**The Dimensions of Trust**

According to Mayer, Davis, and Schoorman (1995) there are three factors that give influence on the formation of trust, that is, ability, benevolence, and integrity.

***Ability***

Ability refers to the competency and characteristics of the sellers or organizations in influencing and authorizing a certain specific area, including how they provide, serve and keep goods and service safe from being interfered by third parties. The ability consists of competence, experience, legal institution, and knowledge (D. Kim, Ferrin, & Rao, 2003; D. J. Kim, Ferrin, & Rao, 2009). For this study, it is hypothesized that:

**Hypothesis 1:** Vendors’ ability has a direct positive influence on thetrust of E-book customers at UT.

***Benevolence***

Benevolence refers to how much the sellers wholeheartedly are willing to give beneficial goods and service to their customers and themselves. As such, they cannot only increase profit sale but also improve their customers’ satisfactory level. Furthermore D. Kim et al. (2003) said that benevolence consists of attention, empathy, belief and acceptance. So, it is therefore hypothesized that:

**Hypothesis 2:** Vendors’ benevolence has a direct positive influenceon the trust of E-book customers at UT.

***Integrity***

Integrity is related to sellers’ attitude and habit in running their business. (D. Kim et al., 2003) stated that the integrity can be seemed from the following perspectives such as fairness, fulfilment, loyalty, honesty, dependability, and reliability. Therefore, it is hypothesized that:

**Hypothesis 3:** Vendors’ integrity has a direct positive influence onthe trust of E-book customers at UT.

**RESEARCH DESIGN AND METHODOLOGY**

**Population, Sample, and Sampling Technique**

The population of this research includes the entire number of UT’s student who are involved in e-Commerce transactions via the online bookstore. The sampling technique purposively selected in this research is non-probability sampling (Cooper & Schindler, 2008; Sekaran, 2003). With this technique sample size is determined according to Structural Equation Model (SEM) covering about 100-200 samples (Hair, Black, Babin, & Anderson, 2009). This research has 659 respondents.

**Instrument and Data Collection Method**

Questionnaire is the primary instruments used in this research. Data collection is carried out by the following methods: (1) the library research and (2) the field research. During the survey questionnaires were sent to some emails and online tutorial forums and the responses from respondents are pooled in the website survey.

**Data Analysis**

All variables were rated on a five-point Likert scale from strongly agrees to strongly disagree. Confirmatory factor analysis was used for testing the goodness-of-fit of the data set. To assess of the impact of ability, benevolence and integrity on trust, structural equation modelling using AMOS software was employed. The structural model of the variables measured in this study is below:



**Figure 1: Structural Model of the Variables Studied after the addition of correlation path T1-T2 and P1-P2**

**RESULTS**

**Hypothesis Test**

The results of hypothesis test are described as follows:

**Table 1. The Results of Hypothesis Test**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Hypothesis | Variable 1 | variable 2 | Coeficient |   | Remark\*) |
|   |   |   | (P-value) |   |   |
| H1 | Ability | Trust | 0,24 | ( | 0,003 | ) | Significant |
| H2 | Benevolence | Trust | 0,13 | ( | 0,137 | ) | Not Significant |
| H3 | Integrity | Trust | 0,62 | ( | 0,000 | ) | Significant |
| H4 | Trust | Participation | 0,28 | ( | 0,197 | ) | Not Significant |
| H5 | Ability | Participation | 0,29 | ( | 0,012 | ) | Significant |
| H6 | Benevolence | Participation | -0,36 | ( | 0,002 | ) | Significant |
| H7 | Integrity | Participation | 0,7 | ( | 0,004 | ) | Significant |

\*) Taraf keyakinan 0,05

Sumber: data primer diolah (2015)

The table above shows that only the benevolence and trust variables do not have a significant influence to the trust and participation variable as their P-value is less than 0.05.

**DISCUSSION**

**The Background of the Respondents**

The sample is dominated by male respondents. The fact that females seem to be less participative in e-Commerce than their male counterparts could be closely related to their nature of being cautious in conducting business across the internet (Kolsaker & Payne, 2002). Moreover, e-Commerce is basically business transactions via an imaginary world and hence is prone to fraud.

Regarding age, the most dominant group of age respondents involved in the use of e-Commerce is under 25 years old. In addition, the smallest age group is between 40 and 44. Respondents who live in Western area of Indonesia can be said to be the most dominant users of e-Commerce and the lowest are people who live in eastern part of Indonesia. It is obvious that occupation also serves as an important factor in decision making processes. In addition to occupation, the majority of e-Book customers work in private companies.

**The Use of the Internet by the Respondents**

That someone puts his trust in a particular media greatly depends on how long he interacts with such media. The research findings affirm that the longer people interact with the internet, the more positive they respond to such media for transactions. This finding is compatible with theory reasoned action (TRA) from Fishbein and Ajzen (1975) where about 64.7% of respondents have been interacting with the internet for more than two years.

**The Vendors’ Abilities and e-Book Customers’ Trust**

The research finding affirms that vendors’ abilities have a direct positive influence on e-Book customers and it is significant. This finding is similar with Aubert and Kelsey (2000) who finds that the ability variable has significant positive influence on the trust variable. In fact, this similarity can be attributed to UT’s student cultural and philosophical backgrounds that are likely to influence local people’s attitudes. This research finding shows that especially for e-Book vendors’ abilities are one of the most important factor to engender trust in many transactions through e-Commerce.

**The Vendors’ Benevolence and e-Book Customers’ Trust**

Our research finding shows that vendors’ benevolence variable has a direct positive influence on e-Book customers. This finding contradicts that of Aubert and Kelsey (2000) who found otherwise. Nevertheless, both this research and Aubert and Kelsey’s find that the benevolence variable insignificantly influences the trust variable. Like the ability variable, despite the fact that benevolence has positive influence on trust, these influences are not significant and hence benevolence is no longer important to e-Book customers.

**The Vendors’ Integrity and e-Book Customers’ Trust**

Another research finding shows that vendor’s trust variable has a significant and direct positive influence on e-Book customers’ trust. This finding is in accord with that of Aubert and Kelsey (2000). In other words, the higher vendor’s integrity the more people put their trust in a vendor. Based on this finding, the integrity variable becomes the most important aspect to consider for e-Book customers especially in building their trust in suppliers.

**The Vendors’ Trust and e-Book Customers’ Participation**

Another research finding shows that vendor’s trust variable has a significant and direct positive influence on e-Book customers’ participation. In other words, the higher vendor’s trust the more people participate in e-commerce of e-Book. Based on this finding, the trust variable becomes the important aspect to consider for e-Book customers especially in building their participation in online bookstore.

**CONCLUSIONS**

Based on the results, out of three predictor variables (ability, benevolence, and integrity), it is only online shop’s ability and integrity that have positive and significant effect on customers’ trust. On the other hand, online shop’s ability, integrity, and customer’s trust have positive and significant effect on e-Book customers’ participation in UT’s online shop.

**Recommendation for e-Book Businesses**

Amid all variables investigated in this research, only the vendors’ ability and integrity variables have positive and significant influence on trust. Based on this finding, it is recommended that e-Book businesses in UT need to consider the following aspects:

* to give fair and open information to customers as for example product specification, price, after sales service, etc.;
* to maintain the reputation of vendors by for example prompt delivery, to follow up of complaints, etc.;
* to provide customers with a user friendly interface for making transactions; to offer satisfactory service to customers in transactions by for example delivering what was promised; and
* to provide the best possible security for every transaction with customers.

**LIMITATIONS**

This research has some limitations as it did not include all variables of trust as proposed by previous researchers. Although sample size has met the requirement for SEM, a larger sample is still needed to make generalizations. In addition, this study was located in Indonesia which is still in the development stage of use of e-Commerce, particularly for e-book transactions.

**DIRECTIONS FOR FUTURE RESEARCH**

In order to enrich the model proposed in this research, it is recommended that other researchers include more variables or indicators of trust. In so doing, the results may improve and the conclusion gained might vary. Besides that, future research should enlarge the sample so that the results become more representative and hence can be generalized, especially if studies are undertaken in other countries.

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